

Maths Topics Homework Sheets

for Year 6

Version 1.0



by
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Introduction

Welcome to the **Maths Topics Homework Sheets for Year 6** PDF book, a resource designed to cover your entire maths homework requirement for Year 6.

This practical learning tool includes 40 double-sided homework sheets, covering topics on the Year 6 National Curriculum. We recommend one homework sheet to be set each week, with any remaining sheets to be set as holiday homework.

As the year progresses, pupils could put their completed sheets into a homework file or folder, hence providing a full homework record for every pupil in your Year 6 class.

The sheets can be tackled in any order depending upon your own scheme of work for Year 6. They appear in this book broadly in the order in which the topics are listed in the National Curriculum.

Alternatively, the PDF book could be printed out and stapled or ring-bound to make a complete book for each pupil.

Answers are also provided in the form of fully filled-in sheets. This should make marking easy and also allows for the relevant page to be projected onto a screen in your classroom to allow for peer marking.

We hope that your pupils enjoy and benefit from the material in this book.

Details of our other fantastic mathematics resources can be found on our website:

www.mentalstarters.co.uk

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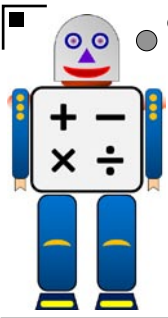


Topic Contents

1. Numbers and Digit Values
2. Rounding Numbers
3. Negative Numbers and Number Patterns
4. Long Multiplication
5. Long Division
6. Mental Calculations
7. Factors, Multiples and Primes
8. Order of Operations Calculations
9. Various Maths Problems
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11. Ordering and Simplifying Fractions
12. Adding and Subtracting Fractions
13. Multiplying Fractions
14. Dividing Fractions by Whole Numbers
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16. Digit Values and Multiplying and Dividing by 10, 100, 1000 etc
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19. Fraction, Decimal and Percentage Equivalents
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29. Using Measurements (Mass and Volume)
30. Area and Perimeter of Parallelograms and Triangles
31. Volume of Cubes and Cuboids
32. Drawing 2D Shapes
33. 3D Shapes and Nets
34. Angles in Triangles, Quadrilaterals and Polygons
35. Circles
36. Angles and Lines
37. Co-ordinates
38. Translating and Reflecting Shapes
39. Pie Charts and Line Graphs
40. Mean Averages

Answer sheets follow the question sheets.





Maths Homework
this week is about:

**Numbers and
Digit Values**

Name:

Date:

Teacher:

Year
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(1) Fill in the missing boxes in this table.

	Number in Digits	Number in Words
(a)	948	<input type="text"/>
(b)	<input type="text"/>	Three thousand, one hundred and twenty six
(c)	5 092	<input type="text"/>
(d)	<input type="text"/>	Sixteen thousand, four hundred and eighty seven
(e)	10 375	<input type="text"/>
(f)	<input type="text"/>	One hundred and twenty six thousand, four hundred and twenty nine
(g)	792 043	<input type="text"/>
(h)	<input type="text"/>	Six million, eight hundred and twenty four thousand, three hundred and fifty six
(i)	4 106 038	<input type="text"/>
(j)	<input type="text"/>	Nine million, two hundred and ten thousand and forty

(2) (a) Put these numbers in order, starting with the lowest.

7 016	28 956	1 486	27 272	3 914
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

(b) Put these numbers in order, starting with the highest.

11 026	28 534	30 106	9 487	12 009
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

(3) Circle the largest number in each box.

(a)

89 463	80 009
24 631	72 106
9 746	16 438

(b)

260 497	263 999
264 387	39 465
128 437	90 909

(c)

98 463	806 438
809 899	384 627
725 476	819 364



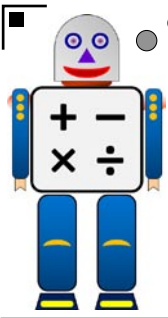
(4) Give, in words, the value of the underlined digit in each number below.

	Number	Value of Underlined Digit
eg:	638 <u>4</u> 97	Four hundred
(a)	2 <u>7</u> 38	
(b)	56 <u>9</u> 21	
(c)	308 <u>1</u> 78	
(d)	39 <u>5</u> 206	
(e)	902 <u>1</u> 46	
(f)	<u>2</u> 62 049	
(g)	<u>5</u> 28 463	
(h)	1 <u>7</u> 40 395	
(i)	<u>6</u> 284 127	
(j)	<u>9</u> 035 268	

(5) Put the correct symbol ($<$, $>$ or $=$) into each box.

(a)	86 523		9 896
(b)	38 026		30 945
(c)	62 748		316 284
(d)	102 040		30 204
(e)	95 627		96 527
(f)	1 074 623		1 074 623
(g)	3 864 251		3 764 251
(h)	1 204 627		1 240 627
(i)	6 972 003		6 970 203
(j)	4 639 526		6 439 526





Maths Homework
this week is about:

Rounding Numbers

Name:

Date:

Teacher:

Year

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- (1) The distances, in miles, on these signposts have been given too accurately.
Round each distance to the nearest mile.

(a)

Adderley	56.34

(b)

Fractionham	84.83

(c)

Squareton	124.54

(d)

Graphdon	137.61

(e)

Dividingtry	209.48

Adderley	

Fractionham	

Squareton	

Graphdon	

Dividingtry	

- (2) Circle the closest number to each number in the box.

(a)

38	37.5	38.12	37.49	37.99	38.04
----	------	-------	-------	-------	-------

(b)

4.6	4.7	4.69	4.61	4.55	4.05
-----	-----	------	------	------	------

(c)

127	127.05	126.85	127.15	127.5	126.9
-----	--------	--------	--------	-------	-------

(d)

19.3	19.25	19.35	19.29	19.39	19.4
------	-------	-------	-------	-------	------

(e)

0.7	0.07	0.77	0.06	0.8	0.72
-----	------	------	------	-----	------

- (3) Round each of these numbers to the nearest 100.

(a) **565** = to the nearest 100

(b) **1 047** = to the nearest 100

(c) **2 613** = to the nearest 100

(d) **5 284** = to the nearest 100

(e) **3 976** = to the nearest 100



(4) Round 73 528

(a) to the nearest 10

(b) to the nearest 100

(c) to the nearest 1 000

(5) Round 68 459

(a) to the nearest 10

(b) to the nearest 100

(c) to the nearest 1 000

(6) Round each of these numbers to the nearest whole number.

	Number	Nearest whole number
(a)	6.05	<input type="text"/>
(b)	8.66	<input type="text"/>
(c)	3.49	<input type="text"/>
(d)	5.84	<input type="text"/>
(e)	9.38	<input type="text"/>
(f)	9.72	<input type="text"/>
(g)	12.48	<input type="text"/>
(h)	18.61	<input type="text"/>
(i)	26.83	<input type="text"/>
(j)	125.39	<input type="text"/>

(7) Round each of these numbers to one decimal place.

	Number	to one decimal place		Number	to one decimal place
(a)	18.73	<input type="text"/>	(b)	148.65	<input type="text"/>
(c)	13.68	<input type="text"/>	(d)	293.38	<input type="text"/>
(e)	27.93	<input type="text"/>	(f)	643.24	<input type="text"/>

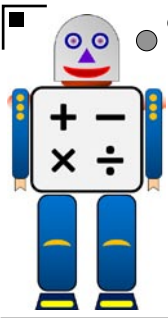
(8) Sam said that there were 30 sweets in a bag to the nearest 10.

Give the smallest and largest number of sweets which could have been in the bag.

Smallest:

Largest:





Maths Homework
this week is about:
**Negative Numbers and
Number Patterns**

Name:

Date:

Teacher:

Year
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(1) Use the negative number ruler to find the length of each rectangle.



(a)		<input type="text"/>
(b)		<input type="text"/>
(c)		<input type="text"/>
(d)		<input type="text"/>
(e)		<input type="text"/>
(f)		<input type="text"/>
(g)		<input type="text"/>
(h)		<input type="text"/>
(i)		<input type="text"/>
(j)		<input type="text"/>

(2) Circle the two numbers which have a difference of 3.

-5 6 4 0 -8 -10

(3) Circle the two numbers which have a difference of 7.

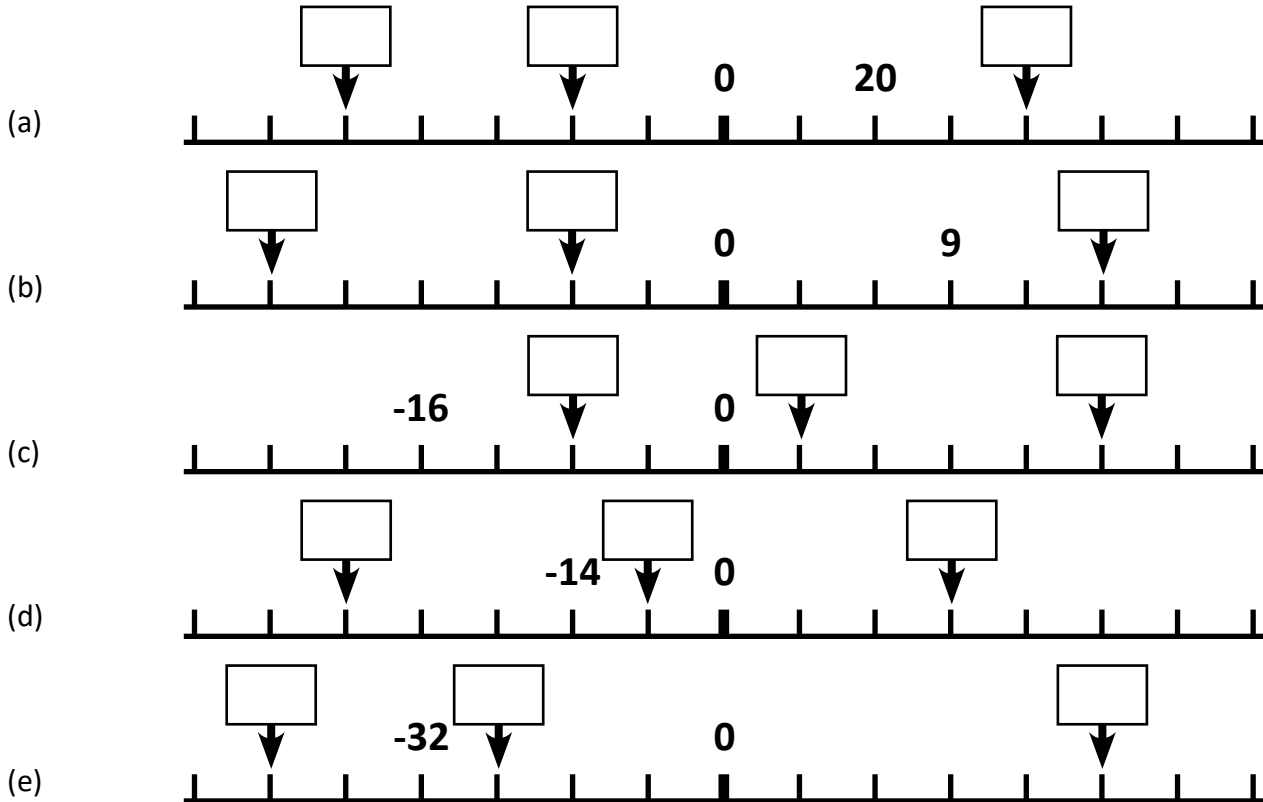
-1 3 9 -12 -4 -7

(4) Put each list of numbers in order, lowest to highest.

(a)	4	-8	0	-11	-3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(b)	-10	3	-4	-17	-2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(c)	12	-22	18	-9	21	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(d)	-1	-31	-2	-26	-5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(e)	-9	22	-48	36	-37	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



(5) For each of these number lines, put the missing numbers in the boxes.



(6) The temperature one evening was 3°C . By the next morning it had dropped by 8°C .
What temperature was it the next morning?

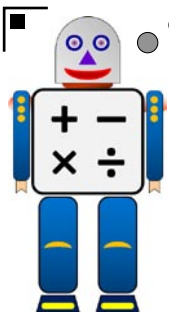
(7) The temperature dropped during one day from 1.5°C to -3.2°C .
What was the overall drop in temperature?

(8) The temperature at the start of one day was 4.8°C .
If the temperature dropped by 7.6°C during the day, what was the new temperature?

(9) One day the temperature rose from -3.9°C to 6.6°C .
By how many degrees did the temperature rise?

(10) Find the temperature at the start of one day if it had risen during the day by 5.7°C
to reach a temperature of 2.3°C





Maths Homework
this week is about:

Long Multiplication

Name: _____

Date: _____

Teacher: _____

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For each of these questions, use the traditional method of long multiplication.

(1)
$$\begin{array}{r} 46 \\ \times 34 \\ \hline \end{array}$$

(2)
$$\begin{array}{r} 67 \\ \times 29 \\ \hline \end{array}$$

(3)
$$\begin{array}{r} 85 \\ \times 47 \\ \hline \end{array}$$

(4)
$$\begin{array}{r} 29 \\ \times 86 \\ \hline \end{array}$$

(5)
$$\begin{array}{r} 76 \\ \times 57 \\ \hline \end{array}$$

(6)
$$\begin{array}{r} 58 \\ \times 98 \\ \hline \end{array}$$

(7)
$$\begin{array}{r} 253 \\ \times 84 \\ \hline \end{array}$$

(8)
$$\begin{array}{r} 694 \\ \times 36 \\ \hline \end{array}$$

(9)
$$\begin{array}{r} 827 \\ \times 57 \\ \hline \end{array}$$

(10)
$$\begin{array}{r} 1345 \\ \times 27 \\ \hline \end{array}$$

(11)
$$\begin{array}{r} 2894 \\ \times 65 \\ \hline \end{array}$$

(12)
$$\begin{array}{r} 7623 \\ \times 87 \\ \hline \end{array}$$



For each of these questions, use the grid method of long multiplication.

(13) 37×46

Answer:

(14) 59×83

Answer:

(15) 78×65

Answer:

(16) 92×48

Answer:

(17) 125×38

Answer:

(18) 274×63

Answer:

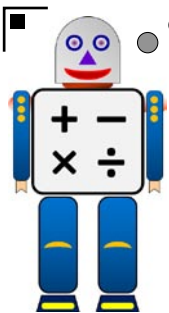
(19) 652×47

Answer:

(20) 829×75

Answer:





Maths Homework
this week is about:

Long Division

Name: _____

Date: _____

Teacher: _____

Year

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Use long division, showing your working, to find the answer to each question.

(1) $672 \div 12$

$$\begin{array}{r} 12 \overline{) 672} \\ \underline{00} \\ 72 \\ \underline{00} \\ 72 \\ \underline{00} \\ 00 \end{array}$$

(2) $948 \div 12$

$$\begin{array}{r} 12 \overline{) 948} \\ \underline{00} \\ 48 \\ \underline{00} \\ 48 \\ \underline{00} \\ 00 \end{array}$$

(3) $882 \div 14$

$$\begin{array}{r} 14 \overline{) 882} \\ \underline{00} \\ 82 \\ \underline{00} \\ 82 \\ \underline{00} \\ 00 \end{array}$$

(4) $684 \div 18$

$$\begin{array}{r} 18 \overline{) 684} \\ \underline{00} \\ 84 \\ \underline{00} \\ 84 \\ \underline{00} \\ 00 \end{array}$$

(5) $735 \div 15$

$$\begin{array}{r} 15 \overline{) 735} \\ \underline{00} \\ 35 \\ \underline{00} \\ 35 \\ \underline{00} \\ 00 \end{array}$$

(6) $768 \div 24$

$$\begin{array}{r} 24 \overline{) 768} \\ \underline{00} \\ 68 \\ \underline{00} \\ 68 \\ \underline{00} \\ 00 \end{array}$$

(7) $855 \div 19$

$$\begin{array}{r} 19 \overline{) 855} \\ \underline{00} \\ 55 \\ \underline{00} \\ 55 \\ \underline{00} \\ 00 \end{array}$$

(8) $864 \div 32$

$$\begin{array}{r} 32 \overline{) 864} \\ \underline{00} \\ 64 \\ \underline{00} \\ 64 \\ \underline{00} \\ 00 \end{array}$$

(9) $949 \div 13$

$$\begin{array}{r} 13 \overline{) 949} \\ \underline{00} \\ 49 \\ \underline{00} \\ 49 \\ \underline{00} \\ 00 \end{array}$$

(10) $945 \div 45$

$$\begin{array}{r} 45 \overline{) 945} \\ \underline{00} \\ 45 \\ \underline{00} \\ 45 \\ \underline{00} \\ 00 \end{array}$$



(11) $4176 \div 12$

$$\begin{array}{r} 12 \overline{)4176} \\ \underline{00} \\ 17 \\ \underline{00} \\ 76 \\ \underline{00} \\ 76 \\ \underline{00} \\ 00 \end{array}$$

(12) $5838 \div 14$

$$\begin{array}{r} 14 \overline{)5838} \\ \underline{00} \\ 18 \\ \underline{00} \\ 33 \\ \underline{00} \\ 38 \\ \underline{00} \\ 28 \\ \underline{00} \\ 00 \end{array}$$

(13) $8874 \div 17$

$$\begin{array}{r} 17 \overline{)8874} \\ \underline{00} \\ 18 \\ \underline{00} \\ 77 \\ \underline{00} \\ 74 \\ \underline{00} \\ 00 \end{array}$$

(14) $7353 \div 19$

$$\begin{array}{r} 19 \overline{)7353} \\ \underline{00} \\ 13 \\ \underline{00} \\ 55 \\ \underline{00} \\ 33 \\ \underline{00} \\ 00 \end{array}$$

(15) $5229 \div 21$

$$\begin{array}{r} 21 \overline{)5229} \\ \underline{00} \\ 12 \\ \underline{00} \\ 22 \\ \underline{00} \\ 09 \\ \underline{00} \\ 00 \end{array}$$

(16) $5226 \div 26$

$$\begin{array}{r} 26 \overline{)5226} \\ \underline{00} \\ 26 \\ \underline{00} \\ 00 \\ \underline{00} \\ 00 \end{array}$$

(17) $5910 \div 15$

$$\begin{array}{r} 15 \overline{)5910} \\ \underline{00} \\ 19 \\ \underline{00} \\ 11 \\ \underline{00} \\ 10 \\ \underline{00} \\ 00 \end{array}$$

(18) $9262 \div 22$

$$\begin{array}{r} 22 \overline{)9262} \\ \underline{00} \\ 72 \\ \underline{00} \\ 56 \\ \underline{00} \\ 42 \\ \underline{00} \\ 00 \end{array}$$

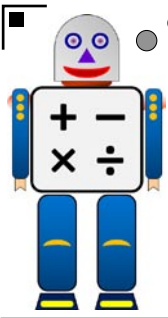
(19) $8277 \div 31$

$$\begin{array}{r} 31 \overline{)8277} \\ \underline{00} \\ 57 \\ \underline{00} \\ 27 \\ \underline{00} \\ 07 \\ \underline{00} \\ 00 \end{array}$$

(20) $8964 \div 18$

$$\begin{array}{r} 18 \overline{)8964} \\ \underline{00} \\ 71 \\ \underline{00} \\ 46 \\ \underline{00} \\ 24 \\ \underline{00} \\ 00 \end{array}$$





Maths Homework
this week is about:

Mental Calculations

Name:

Date:

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For all the questions on this sheet, you should try to work out the answer in your head without writing down any working.

(1) Addition Circles.

Add together the numbers around each circle and write your answer in the centre circle.

(a) (b) (c) (d) (e) (f) (g) (h) (i) (j)

(2) Subtraction Blocks.

Subtract each pair of numbers and write your answer in the box.

(a)

96	<input type="text"/>
32	

 (b)

76	<input type="text"/>
41	

 (c)

87	<input type="text"/>
38	

 (d)

59	<input type="text"/>
17	

 (e)

83	<input type="text"/>
46	

 (f)

147	<input type="text"/>
66	

 (g)

183	<input type="text"/>
79	

 (h)

241	<input type="text"/>
123	

 (i)

276	<input type="text"/>
98	

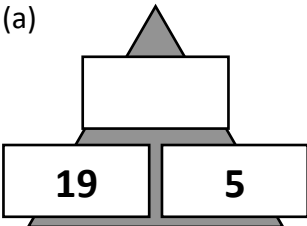
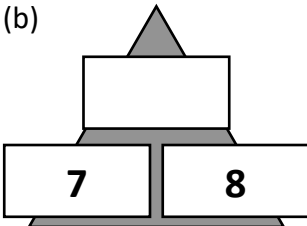
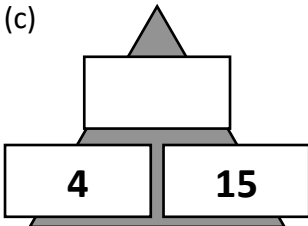
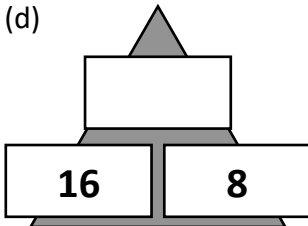
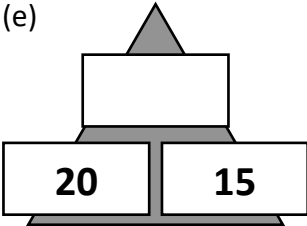
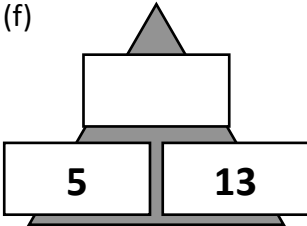
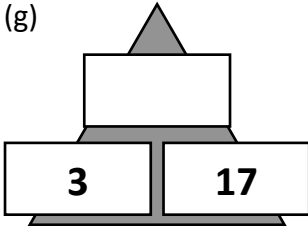
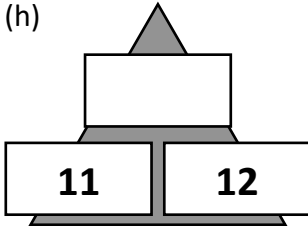
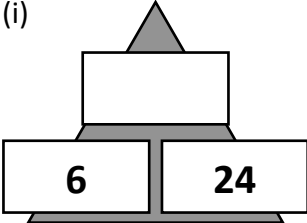
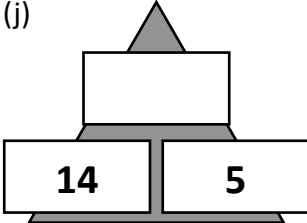
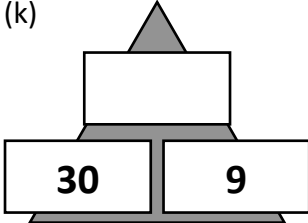
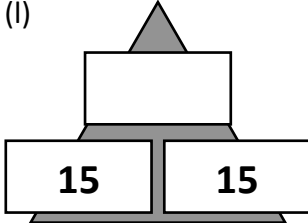
 (j)

567	<input type="text"/>
123	



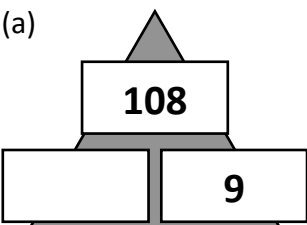
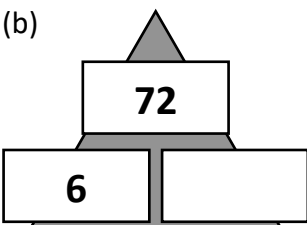
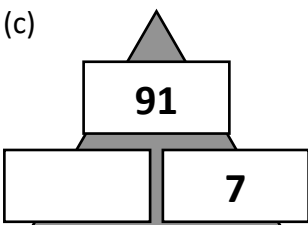
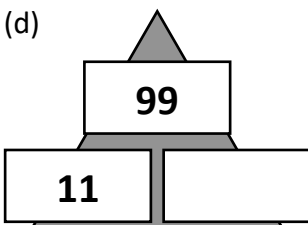
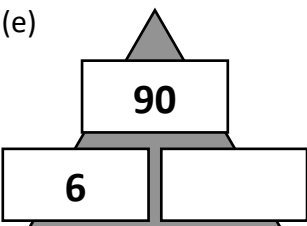
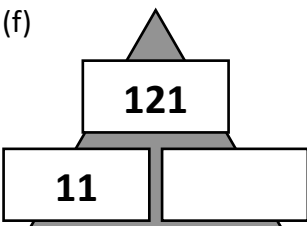
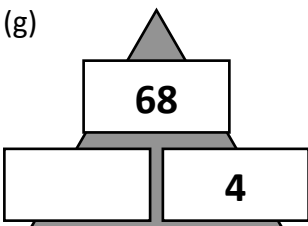
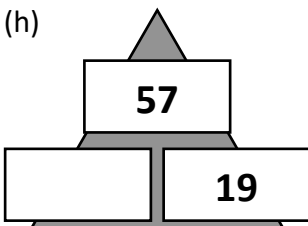
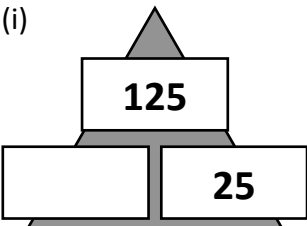
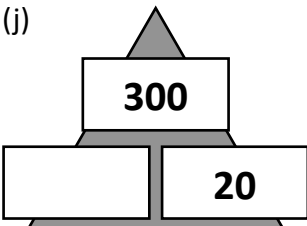
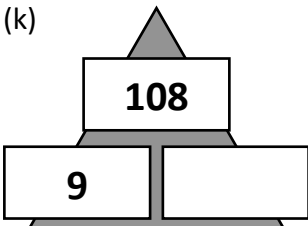
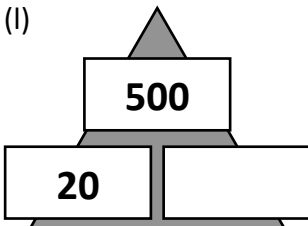
(3) Multiplication Pyramids.

Multiply each pair of numbers and write your answer at the top of the pyramid.

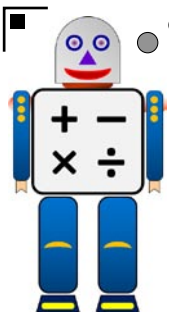
(a)		(b)		(c)		(d)	
(e)		(f)		(g)		(h)	
(i)		(j)		(k)		(l)	

(4) Division Pyramids.

Divide the number at the top of the pyramid by the number at the bottom and write your answer in the empty space in the pyramid.

(a)		(b)		(c)		(d)	
(e)		(f)		(g)		(h)	
(i)		(j)		(k)		(l)	





Maths Homework
this week is about:

**Factors, Multiples and
Primes**

Name:

Date:

Teacher:

Year
6

(1) Circle all the prime numbers in this list.

1 2 3 4 5 6 7 8 9 10

(2) What is the next prime number after 29?

(3) Give the next prime number after 47?

(4) Give the next five multiples of each of the following numbers.

(a)	7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(b)	11	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(c)	13	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(d)	35	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(e)	46	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

(5) For each pair of numbers, circle the number in the box which is a common multiple of both.

(a)	3	5	(b)	2	7	(c)	4	5
	8	15		5	11		1	4
	16	35		27	28		20	24
(d)	6	7	(e)	5	8	(f)	2	17
	6	19		5	40		2	15
	21	42		50	88		34	217



(6) Give the factors of each of these numbers.

- (a) has factors and
- (b) has factors and
- (c) has factors and
- (d) has factors and

(e) Fill in the missing word in this sentence:

Because each of the above numbers have exactly TWO FACTORS,

they are called numbers.

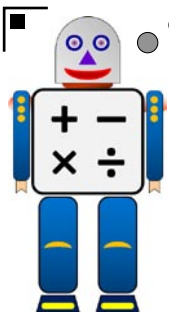
(7) Give all the pairs of factors for each of these numbers:

- (a)
- (b)
- (c)
- (d)
- (e)
- (f)
- (g)
- (h)

(8) (a) Give the common factors of 10 and 16:

(b) Give the common factors of 20 and 50:





Maths Homework
this week is about:

Order of Operations Calculations

Name:

Date:

Teacher:

Year

6

(1) Find the answer to each calculation.

- | | | | |
|-----|-------------------|---|----------------------|
| (a) | $5 \times 2 + 6$ | = | <input type="text"/> |
| (b) | $8 \times 7 - 9$ | = | <input type="text"/> |
| (c) | $20 \div 4 + 6$ | = | <input type="text"/> |
| (d) | $50 \div 5 - 3$ | = | <input type="text"/> |
| (e) | $8 + 5 \times 4$ | = | <input type="text"/> |
| (f) | $7 + 6 \times 8$ | = | <input type="text"/> |
| (g) | $9 + 15 \div 3$ | = | <input type="text"/> |
| (h) | $28 - 3 \times 2$ | = | <input type="text"/> |
| (i) | $40 - 8 \times 3$ | = | <input type="text"/> |
| (j) | $50 - 21 \div 7$ | = | <input type="text"/> |

(2) Find the answer to each calculation.

- | | | | |
|-----|------------------------|---|----------------------|
| (a) | $4 + 2 \times 3 + 1$ | = | <input type="text"/> |
| (b) | $1 + 6 \times 5 + 3$ | = | <input type="text"/> |
| (c) | $5 + 5 \times 8 + 4$ | = | <input type="text"/> |
| (d) | $8 + 3 \times 7 - 2$ | = | <input type="text"/> |
| (e) | $12 + 9 \times 2 - 12$ | = | <input type="text"/> |
| (f) | $50 - 3 \times 4 - 8$ | = | <input type="text"/> |
| (g) | $7 + 10 \div 2 + 3$ | = | <input type="text"/> |
| (h) | $6 + 8 \div 4 + 10$ | = | <input type="text"/> |
| (i) | $15 + 20 \div 4 - 10$ | = | <input type="text"/> |
| (j) | $40 - 30 \div 6 + 1$ | = | <input type="text"/> |



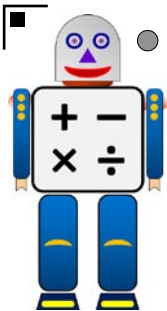
(3) Find the answer to each calculation. Remember to find the value inside the brackets first.

- (a) $(4 + 8) \times 5 =$
- (b) $(3 + 4) \times 11 =$
- (c) $6 \times (9 + 3) =$
- (d) $(9 - 2) \times 6 =$
- (e) $28 \div (4 + 3) =$
- (f) $60 \div (16 - 4) =$
- (g) $(31 - 3) \div 7 =$
- (h) $(28 + 8) \div 12 =$
- (i) $9 \times (22 - 10) =$
- (j) $(32 - 22) \times 8 =$

(4) Find the answer to each calculation. Again, the value inside each pair of brackets needs to be found first.

- (a) $(3 + 5) \times (2 + 4) =$
- (b) $(2 + 7) \times (3 + 4) =$
- (c) $(3 + 9) \times (17 - 9) =$
- (d) $(19 - 16) \times (8 + 6) =$
- (e) $(49 - 47) \times (2 + 9) =$
- (f) $(82 - 62) \times (64 - 59) =$
- (g) $(88 - 28) \div (1 + 4) =$
- (h) $(49 + 14) \div (17 - 10) =$
- (i) $(22 + 23) \div (51 - 48) =$
- (j) $(40 + 44) \div (28 - 22) =$





Maths Homework
this week is about:

**Various
Maths Problems**

Name:

Date:

Teacher:

Year

6

(1) A shop sold packets of crisps at 45p each. How much would five packets of crisps cost?

(2) Find the total of the spots on all faces of three regular dice.

(3) A grandmother shared £25.80 equally between her three grandchildren.
How much money did each grandchild receive?

(4) Pine trees were planted in neat rows in a field. If there were 12 rows with 18 trees in each row,
how many trees were there altogether?

(5) The number of minutes spent on homework by a pupil on five nights of one week were:
23 mins, 28 mins, 36 mins, 18 mins, 22 mins. Find the total time spent, in hours and minutes

(6) A computer was priced at £645. If it was reduced in a sale by £137, what was the sale price?

(7) There are 656 car parking spaces in a large car park. All the spaces are arranged in rows with the
same number of spaces in each row. If there are 16 rows, how many spaces are there in each row?

(8) How many hours are there in total in one week?

(9) Find the sum of all the whole numbers from 1 to 20.

(10) A box of dog biscuits contains 96 biscuits. If the dog is given 8 biscuits per day, for how many days will
the box last?



(11) Use this menu to answer the questions below.

Menu	
Tea	£0.80
Coffee	£1.10
Orange Juice	£1.25
Ham Sandwich	£1.80
Cheese Sandwich	£1.75
Fruit Salad	£1.40
Flapjack	£0.90
Frozen Yoghurt	£0.70

(a) Find the cost of seven cups of tea.

(b) What is the cost of a coffee and a cheese sandwich?

(c) Give the total cost of two glasses of orange juice and two flapjacks.

(d) How much would twelve frozen yogurts cost?

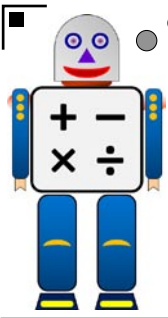
(e) Calculate the total price of four cheese sandwiches and two fruit salads.

(f) Work out the cost of six coffees and three ham sandwiches.

(g) What is the total cost of eight fruit salads?

(h) Find the total cost of one of each item on the menu.





Maths Homework
this week is about:

Checking Answers using Estimation

Name: _____

Date: _____

Teacher: _____

Year

6

- (1) Sue said that $4.9 \times 12.1 = 59.29$

By rounding each of the numbers to the nearest whole number, find an approximate answer to see whether Sue could be correct.

- (2) Sam said that $29.7 \times 41.3 = 12266.1$

By rounding each of the numbers to the nearest ten, find an approximate answer to see whether Sam could be correct.

- (3) Helen said that $80.94 \div 1.9 = 42.6$

By rounding each of the numbers to an appropriate value, find an approximate answer to see whether Helen could be correct.

- (4) By rounding each of the numbers to the nearest whole number, find an approximate answer to each of these calculations.

	Calculation	Approximate Values	Approximate Answer
(a)	12.4×9.7		
(b)	13.1×4.3		
(c)	5.2×17.9		
(d)	19.7×15.2		
(e)	44.8×3.8		
(f)	29.7×30.3		
(g)	$39.6 \div 4.7$		
(h)	$99.9 \div 19.9$		
(i)	$79.5 \div 3.9$		
(j)	$65.7 \div 5.6$		



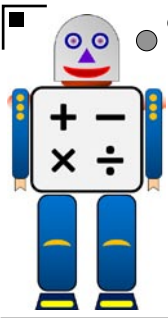
- (5) Use an estimate to see whether the following answers, given by a pupil, could be correct or not. Write "YES" in the last column if the answer could be correct, and "NO" if it cannot be correct.

	Calculation	Pupil's Answer	Your Estimate	YES / NO
(eg)	46 + 11	57	50 + 10 = 60	YES
(a)	89 + 122	311		
(b)	71 + 202	273		
(c)	60.3 - 19.6	20.7		
(d)	139.7 - 39.7	39.7		
(e)	259.8 - 60.4	199.4		
(f)	7.9 × 9.2	92.68		
(g)	11.9 × 9.9	117.81		
(h)	11.2 × 4.1	45.92		
(i)	70.11 ÷ 4.8	34.6		
(j)	60.39 ÷ 3.3	18.3		

- (6) Use a suitable estimate to see whether each of these sale price savings on the labels could be correct. Say "YES" if the sale price could be correct, and "NO" if it cannot be correct.

(eg)	WAS £69 NOW £31 SAVE £38	70 - 30 = 40 YES	(c)	WAS £929 NOW £801 SAVE £128	
(a)	WAS £121 NOW £101 SAVE £10		(d)	WAS £468 NOW £239 SAVE £229	
(b)	WAS £249 NOW £151 SAVE £50		(e)	WAS £861 NOW £459 SAVE £202	





Maths Homework
this week is about:

Ordering and Simplifying Fractions

Name: _____

Date: _____

Teacher: _____

Year

6

(1) Put a circle around the largest fraction in each box.

(a) <table border="1"><tr><td>$\frac{2}{3}$</td><td>$\frac{2}{5}$</td></tr></table>	$\frac{2}{3}$	$\frac{2}{5}$	(b) <table border="1"><tr><td>$\frac{4}{9}$</td><td>$\frac{4}{11}$</td></tr></table>	$\frac{4}{9}$	$\frac{4}{11}$	(c) <table border="1"><tr><td>$\frac{7}{18}$</td><td>$\frac{7}{15}$</td></tr></table>	$\frac{7}{18}$	$\frac{7}{15}$	(d) <table border="1"><tr><td>$\frac{12}{19}$</td><td>$\frac{12}{21}$</td></tr></table>	$\frac{12}{19}$	$\frac{12}{21}$
$\frac{2}{3}$	$\frac{2}{5}$										
$\frac{4}{9}$	$\frac{4}{11}$										
$\frac{7}{18}$	$\frac{7}{15}$										
$\frac{12}{19}$	$\frac{12}{21}$										
(e) <table border="1"><tr><td>$\frac{2}{9}$</td><td>$\frac{4}{9}$</td></tr></table>	$\frac{2}{9}$	$\frac{4}{9}$	(f) <table border="1"><tr><td>$\frac{11}{14}$</td><td>$\frac{9}{14}$</td></tr></table>	$\frac{11}{14}$	$\frac{9}{14}$	(g) <table border="1"><tr><td>$\frac{11}{18}$</td><td>$\frac{13}{18}$</td></tr></table>	$\frac{11}{18}$	$\frac{13}{18}$	(h) <table border="1"><tr><td>$\frac{14}{23}$</td><td>$\frac{19}{23}$</td></tr></table>	$\frac{14}{23}$	$\frac{19}{23}$
$\frac{2}{9}$	$\frac{4}{9}$										
$\frac{11}{14}$	$\frac{9}{14}$										
$\frac{11}{18}$	$\frac{13}{18}$										
$\frac{14}{23}$	$\frac{19}{23}$										

(2) Put the correct symbol in each box. Choose from $<$, $>$ or $=$.

(a) $\frac{3}{11}$ <input type="text"/> $\frac{4}{11}$	(b) $\frac{7}{16}$ <input type="text"/> $\frac{5}{16}$	(c) $\frac{5}{15}$ <input type="text"/> $\frac{2}{6}$	(d) $\frac{6}{17}$ <input type="text"/> $\frac{6}{19}$
(e) $\frac{1}{4}$ <input type="text"/> $\frac{1}{3}$	(f) $\frac{3}{4}$ <input type="text"/> $\frac{2}{3}$	(g) $\frac{3}{17}$ <input type="text"/> $\frac{9}{51}$	(h) $\frac{19}{20}$ <input type="text"/> $\frac{9}{10}$
(i) $\frac{83}{100}$ <input type="text"/> $\frac{43}{50}$	(j) $\frac{3}{5}$ <input type="text"/> $\frac{17}{20}$	(k) $\frac{6}{8}$ <input type="text"/> $\frac{3}{4}$	(l) $\frac{17}{24}$ <input type="text"/> $\frac{13}{25}$

(3) Put each of these sets of fractions in order, from lowest to highest.

(a) <table border="1"><tr><td>$\frac{3}{11}$</td><td>$\frac{10}{11}$</td><td>$\frac{2}{11}$</td><td>$\frac{7}{11}$</td></tr></table> → <table border="1"><tr><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td></tr></table>	$\frac{3}{11}$	$\frac{10}{11}$	$\frac{2}{11}$	$\frac{7}{11}$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
$\frac{3}{11}$	$\frac{10}{11}$	$\frac{2}{11}$	$\frac{7}{11}$					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
(b) <table border="1"><tr><td>$\frac{6}{13}$</td><td>$\frac{6}{17}$</td><td>$\frac{6}{7}$</td><td>$\frac{6}{11}$</td></tr></table> → <table border="1"><tr><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td></tr></table>	$\frac{6}{13}$	$\frac{6}{17}$	$\frac{6}{7}$	$\frac{6}{11}$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
$\frac{6}{13}$	$\frac{6}{17}$	$\frac{6}{7}$	$\frac{6}{11}$					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
(c) <table border="1"><tr><td>$\frac{10}{19}$</td><td>$\frac{4}{19}$</td><td>$\frac{13}{19}$</td><td>$\frac{7}{19}$</td></tr></table> → <table border="1"><tr><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td></tr></table>	$\frac{10}{19}$	$\frac{4}{19}$	$\frac{13}{19}$	$\frac{7}{19}$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
$\frac{10}{19}$	$\frac{4}{19}$	$\frac{13}{19}$	$\frac{7}{19}$					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
(d) <table border="1"><tr><td>$\frac{3}{14}$</td><td>$\frac{3}{13}$</td><td>$\frac{3}{20}$</td><td>$\frac{3}{16}$</td></tr></table> → <table border="1"><tr><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td></tr></table>	$\frac{3}{14}$	$\frac{3}{13}$	$\frac{3}{20}$	$\frac{3}{16}$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
$\frac{3}{14}$	$\frac{3}{13}$	$\frac{3}{20}$	$\frac{3}{16}$					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
(e) <table border="1"><tr><td>$\frac{2}{5}$</td><td>$\frac{9}{10}$</td><td>$\frac{3}{5}$</td><td>$\frac{1}{4}$</td></tr></table> → <table border="1"><tr><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td></tr></table>	$\frac{2}{5}$	$\frac{9}{10}$	$\frac{3}{5}$	$\frac{1}{4}$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
$\frac{2}{5}$	$\frac{9}{10}$	$\frac{3}{5}$	$\frac{1}{4}$					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
(f) <table border="1"><tr><td>$\frac{3}{4}$</td><td>$\frac{6}{7}$</td><td>$\frac{2}{9}$</td><td>$\frac{1}{3}$</td></tr></table> → <table border="1"><tr><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td></tr></table>	$\frac{3}{4}$	$\frac{6}{7}$	$\frac{2}{9}$	$\frac{1}{3}$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
$\frac{3}{4}$	$\frac{6}{7}$	$\frac{2}{9}$	$\frac{1}{3}$					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					



(4) Write each of these fractions as simply as possible.

(a) $\frac{4}{6} = \boxed{}$

(b) $\frac{6}{8} = \boxed{}$

(c) $\frac{8}{14} = \boxed{}$

(d) $\frac{10}{18} = \boxed{}$

(e) $\frac{12}{14} = \boxed{}$

(f) $\frac{4}{10} = \boxed{}$

(g) $\frac{14}{24} = \boxed{}$

(h) $\frac{4}{30} = \boxed{}$

(i) $\frac{18}{34} = \boxed{}$

(5) Write each of these fractions as simply as possible.

(a) $\frac{12}{15} = \boxed{}$

(b) $\frac{40}{55} = \boxed{}$

(c) $\frac{8}{84} = \boxed{}$

(d) $\frac{25}{45} = \boxed{}$

(e) $\frac{30}{96} = \boxed{}$

(f) $\frac{18}{21} = \boxed{}$

(g) $\frac{20}{68} = \boxed{}$

(h) $\frac{56}{91} = \boxed{}$

(i) $\frac{27}{72} = \boxed{}$

(6) Say which number was used to simplify each of these fractions.

(a) $\frac{36}{44} = \frac{9}{11}$

Diagram showing two boxes with a division symbol (÷) above each. An arrow points from the top box to the fraction $\frac{36}{44}$, and another arrow points from the bottom box to the fraction $\frac{9}{11}$.

(b) $\frac{35}{84} = \frac{5}{12}$

Diagram showing two boxes with a division symbol (÷) above each. An arrow points from the top box to the fraction $\frac{35}{84}$, and another arrow points from the bottom box to the fraction $\frac{5}{12}$.

(c) $\frac{21}{48} = \frac{7}{16}$

Diagram showing two boxes with a division symbol (÷) above each. An arrow points from the top box to the fraction $\frac{21}{48}$, and another arrow points from the bottom box to the fraction $\frac{7}{16}$.

(d) $\frac{40}{45} = \frac{8}{9}$

Diagram showing two boxes with a division symbol (÷) above each. An arrow points from the top box to the fraction $\frac{40}{45}$, and another arrow points from the bottom box to the fraction $\frac{8}{9}$.

(e) $\frac{36}{66} = \frac{6}{11}$

Diagram showing two boxes with a division symbol (÷) above each. An arrow points from the top box to the fraction $\frac{36}{66}$, and another arrow points from the bottom box to the fraction $\frac{6}{11}$.

(f) $\frac{16}{152} = \frac{2}{19}$

Diagram showing two boxes with a division symbol (÷) above each. An arrow points from the top box to the fraction $\frac{16}{152}$, and another arrow points from the bottom box to the fraction $\frac{2}{19}$.

(g) $\frac{36}{264} = \frac{3}{22}$

Diagram showing two boxes with a division symbol (÷) above each. An arrow points from the top box to the fraction $\frac{36}{264}$, and another arrow points from the bottom box to the fraction $\frac{3}{22}$.

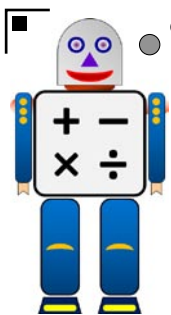
(h) $\frac{54}{126} = \frac{6}{14}$

Diagram showing two boxes with a division symbol (÷) above each. An arrow points from the top box to the fraction $\frac{54}{126}$, and another arrow points from the bottom box to the fraction $\frac{6}{14}$.

(i) $\frac{33}{88} = \frac{3}{8}$

Diagram showing two boxes with a division symbol (÷) above each. An arrow points from the top box to the fraction $\frac{33}{88}$, and another arrow points from the bottom box to the fraction $\frac{3}{8}$.





Maths Homework
this week is about:

Adding and Subtracting Fractions

Name:

Date:

Teacher:

Year

6

(1) Add each pair of fractions.

(a) $\frac{2}{7} + \frac{3}{7} = \square$

(b) $\frac{3}{11} + \frac{5}{11} = \square$

(c) $\frac{6}{15} + \frac{7}{15} = \square$

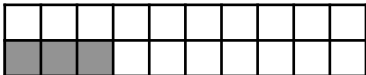
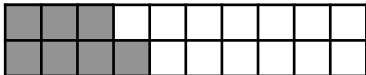
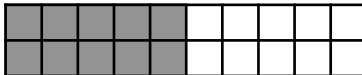
(d) $\frac{8}{23} + \frac{11}{23} = \square$

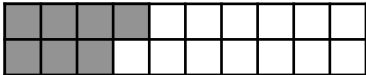

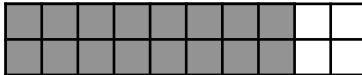
(e) $\frac{7}{19} + \frac{7}{19} = \square$



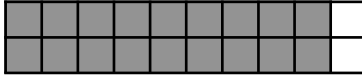
(f) $\frac{18}{29} + \frac{8}{29} = \square$

(2) Use the strips to add each pair of fractions.

Give each missing fraction, and give the answer as simply as possible.

(a)  +  = 
 + = =

(b)  +  = 
 + = =

(c)  +  = 
 + = =

(3) Change to fractions with the same denominator, and then add each pair of fractions.

(a) $\frac{1}{2} + \frac{1}{3} = \square + \square = \square$

(b) $\frac{2}{7} + \frac{2}{5} = \square + \square = \square$

(c) $\frac{1}{4} + \frac{2}{5} = \square + \square = \square$

(d) $\frac{3}{8} + \frac{4}{9} = \square + \square = \square$

(e) $\frac{1}{8} + \frac{3}{5} = \square + \square = \square$

(f) $\frac{2}{3} + \frac{1}{7} = \square + \square = \square$

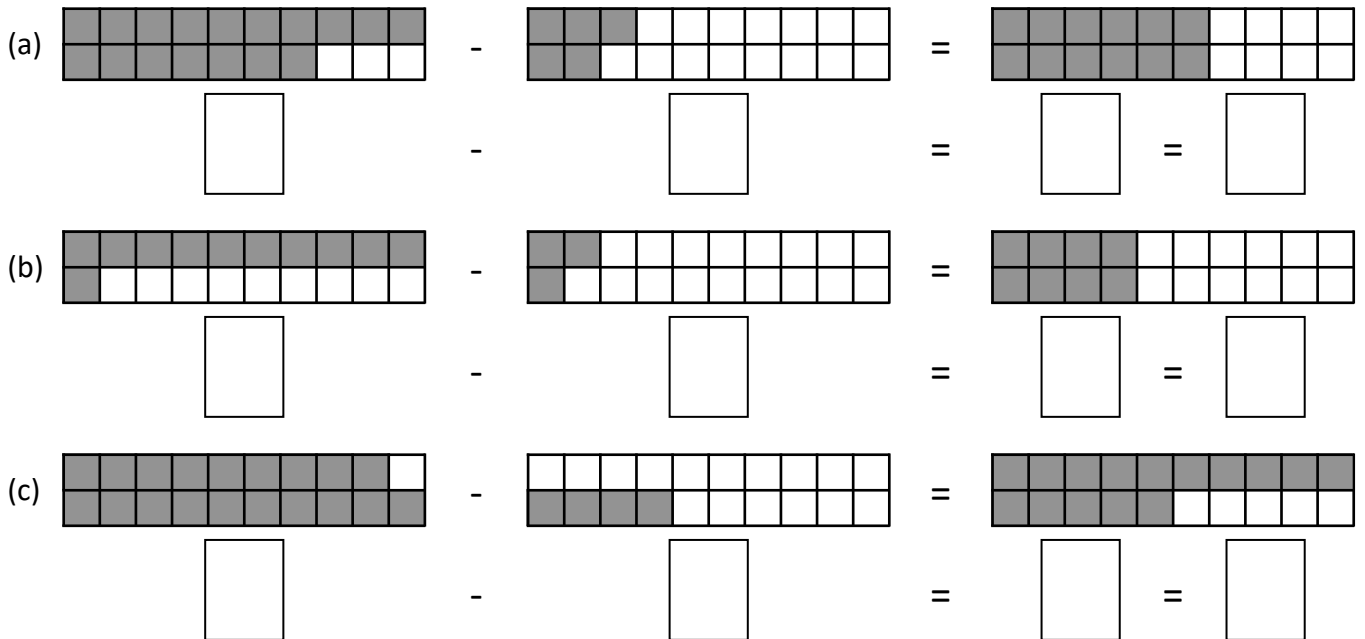


(4) Subtract each pair of fractions.

(a) $\frac{5}{9} - \frac{1}{9} = \square$	(b) $\frac{12}{13} - \frac{6}{13} = \square$	(c) $\frac{17}{19} - \frac{16}{19} = \square$
(d) $\frac{19}{30} - \frac{8}{30} = \square$	(e) $\frac{14}{27} - \frac{7}{27} = \square$	(f) $\frac{30}{31} - \frac{17}{31} = \square$

(5) Use the strips to subtract each pair of fractions.

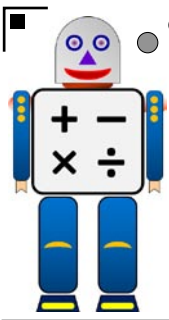
Give each missing fraction, and give the answer as simply as possible.



(6) Change to fractions with the same denominator, and then subtract each pair of fractions.

(a) $\frac{2}{3} - \frac{1}{2} = \square - \square = \square$	(b) $\frac{4}{5} - \frac{2}{3} = \square - \square = \square$
(c) $\frac{3}{4} - \frac{2}{3} = \square - \square = \square$	(d) $\frac{5}{6} - \frac{2}{5} = \square - \square = \square$
(e) $\frac{6}{7} - \frac{1}{2} = \square - \square = \square$	(f) $\frac{3}{5} - \frac{2}{7} = \square - \square = \square$
(g) $\frac{5}{8} - \frac{1}{5} = \square - \square = \square$	(h) $\frac{7}{8} - \frac{2}{3} = \square - \square = \square$
(i) $\frac{9}{10} - \frac{3}{7} = \square - \square = \square$	(j) $\frac{13}{15} - \frac{1}{2} = \square - \square = \square$





Maths Homework
this week is about:

Multiplying Fractions

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(1) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{1}{2}$).

(a) $\frac{1}{2} \times \frac{3}{7} = \square$	(b) $\frac{1}{2} \times \frac{5}{8} = \square$	(c) $\frac{1}{2} \times \frac{3}{7} = \square$
(d) $\frac{1}{2} \times \frac{7}{9} = \square$	(e) $\frac{1}{2} \times \frac{9}{11} = \square$	(f) $\frac{1}{2} \times \frac{15}{17} = \square$

(g) What do you notice? _____

(2) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{1}{3}$).

(a) $\frac{1}{3} \times \frac{5}{7} = \square$	(b) $\frac{1}{3} \times \frac{4}{9} = \square$	(c) $\frac{1}{3} \times \frac{2}{5} = \square$
(d) $\frac{1}{3} \times \frac{7}{8} = \square$	(e) $\frac{1}{3} \times \frac{8}{11} = \square$	(f) $\frac{1}{3} \times \frac{1}{22} = \square$

(g) What do you notice? _____

(3) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{2}{5}$).

(a) $\frac{2}{5} \times \frac{3}{4} = \square$	(b) $\frac{2}{5} \times \frac{4}{5} = \square$	(c) $\frac{2}{5} \times \frac{4}{7} = \square$
(d) $\frac{2}{5} \times \frac{6}{7} = \square$	(e) $\frac{2}{5} \times \frac{9}{11} = \square$	(f) $\frac{2}{5} \times \frac{8}{15} = \square$

(g) What do you notice? _____



(4) Find the answer to each of these fraction multiplications.

(a) $\frac{5}{8} \times \frac{3}{4} = \square$	(b) $\frac{2}{9} \times \frac{4}{5} = \square$	(c) $\frac{7}{11} \times \frac{12}{15} = \square$
(d) $\frac{6}{7} \times \frac{8}{11} = \square$	(e) $\frac{1}{3} \times \frac{11}{14} = \square$	(f) $\frac{5}{7} \times \frac{8}{9} = \square$
(g) $\frac{11}{12} \times \frac{5}{8} = \square$	(h) $\frac{9}{10} \times \frac{7}{13} = \square$	(i) $\frac{2}{17} \times \frac{3}{11} = \square$

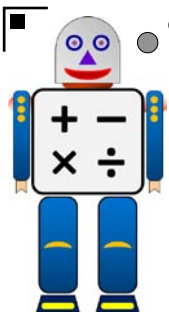
(5) Find the answer to each of these fraction multiplications.
In these questions you are multiplying each fraction by itself.

(a) $\frac{1}{2} \times \frac{1}{2} = \square$	(b) $\frac{2}{3} \times \frac{2}{3} = \square$	(c) $\frac{3}{4} \times \frac{3}{4} = \square$
(d) $\frac{4}{5} \times \frac{4}{5} = \square$	(e) $\frac{5}{6} \times \frac{5}{6} = \square$	(f) $\frac{6}{7} \times \frac{6}{7} = \square$
(g) $\frac{7}{8} \times \frac{7}{8} = \square$	(h) $\frac{8}{9} \times \frac{8}{9} = \square$	(i) $\frac{9}{10} \times \frac{9}{10} = \square$

(6) In these questions, multiply each pair of fractions, then simplify the answer.

(a) $\frac{3}{5} \times \frac{1}{6} = \square = \square$	(b) $\frac{4}{7} \times \frac{5}{6} = \square = \square$
(c) $\frac{5}{8} \times \frac{7}{15} = \square = \square$	(d) $\frac{9}{10} \times \frac{7}{12} = \square = \square$
(e) $\frac{7}{8} \times \frac{3}{14} = \square = \square$	(f) $\frac{4}{9} \times \frac{3}{8} = \square = \square$





Maths Homework
this week is about:

Dividing Fractions by Whole Numbers

Name: _____

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(1) Circle the correct answer for each of these divisions.

(a) $\frac{2}{3} \div 5$
 $\frac{10}{3}$ $\frac{2}{15}$ $\frac{10}{15}$

(b) $\frac{4}{5} \div 2$
 $\frac{4}{10}$ $\frac{5}{6}$ $\frac{2}{5}$

(c) $\frac{3}{8} \div 3$
 $\frac{9}{8}$ $\frac{9}{24}$ $\frac{3}{24}$

(d) $\frac{5}{6} \div 3$
 $\frac{5}{18}$ $\frac{15}{18}$ $\frac{5}{2}$

(e) $\frac{2}{7} \div 6$
 $\frac{2}{42}$ $\frac{12}{7}$ $\frac{3}{42}$

(f) $\frac{7}{9} \div 4$
 $\frac{28}{36}$ $\frac{7}{36}$ $\frac{28}{9}$

(g) $\frac{9}{10} \div 5$
 $\frac{45}{10}$ $\frac{9}{2}$ $\frac{9}{50}$

(h) $\frac{9}{11} \div 8$
 $\frac{72}{88}$ $\frac{72}{11}$ $\frac{9}{88}$

(i) $\frac{7}{9} \div 9$
 $\frac{7}{1}$ $\frac{7}{81}$ $\frac{63}{9}$

(j) $\frac{3}{7} \div 10$
 $\frac{30}{70}$ $\frac{30}{7}$ $\frac{3}{70}$

(k) $\frac{1}{8} \div 8$
 $\frac{1}{64}$ $\frac{8}{64}$ $\frac{1}{1}$

(l) $\frac{5}{8} \div 6$
 $\frac{30}{8}$ $\frac{5}{48}$ $\frac{30}{48}$

(2) Divide each of these fractions by 2.

(a) $\frac{5}{9} \div 2 = \square$

(b) $\frac{13}{15} \div 2 = \square$

(c) $\frac{9}{13} \div 2 = \square$

(d) $\frac{11}{12} \div 2 = \square$

(e) $\frac{7}{11} \div 2 = \square$

(f) $\frac{15}{17} \div 2 = \square$

(g) $\frac{7}{17} \div 2 = \square$

(h) $\frac{3}{19} \div 2 = \square$

(i) $\frac{17}{19} \div 2 = \square$



(3) Divide each of these fractions by 3.

(a) $\frac{2}{7} \div 3 = \square$	(b) $\frac{8}{11} \div 3 = \square$	(c) $\frac{1}{5} \div 3 = \square$
(d) $\frac{7}{10} \div 3 = \square$	(e) $\frac{5}{14} \div 3 = \square$	(f) $\frac{5}{8} \div 3 = \square$
(g) $\frac{2}{5} \div 3 = \square$	(h) $\frac{5}{9} \div 3 = \square$	(i) $\frac{10}{11} \div 3 = \square$

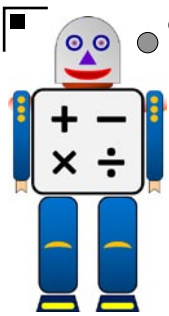
(4) Fill in the missing boxes in these calculations.

(a) $\frac{3}{4} \div 5 = \frac{\square}{20}$	(b) $\frac{2}{5} \div 3 = \frac{\square}{15}$	(c) $\frac{4}{7} \div 5 = \frac{\square}{35}$
(d) $\frac{5}{7} \div 4 = \frac{\square}{28}$	(e) $\frac{5}{8} \div 6 = \frac{\square}{48}$	(f) $\frac{2}{9} \div 7 = \frac{\square}{63}$
(g) $\frac{5}{6} \div 2 = \frac{5}{\square}$	(h) $\frac{7}{9} \div 4 = \frac{7}{\square}$	(i) $\frac{5}{11} \div 6 = \frac{5}{\square}$
(j) $\frac{1}{9} \div 8 = \frac{1}{\square}$	(k) $\frac{3}{11} \div 7 = \frac{3}{\square}$	(l) $\frac{5}{6} \div 9 = \frac{5}{\square}$

(5) For each of these questions, divide the fraction by the whole number, and then simplify your answer.

(a) $\frac{10}{11} \div 5 = \square = \square$	(b) $\frac{18}{19} \div 3 = \square = \square$
(c) $\frac{12}{13} \div 3 = \square = \square$	(d) $\frac{9}{10} \div 6 = \square = \square$
(e) $\frac{10}{17} \div 4 = \square = \square$	(f) $\frac{21}{22} \div 7 = \square = \square$





Maths Homework
this week is about:

Fractions to Decimals

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(1) Fill in the missing values for these fractions and decimals.

(a) = $\frac{7}{10}$

(b) **0.3** =

(c) **0.4** =

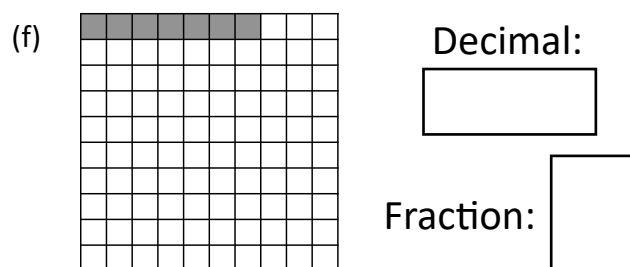
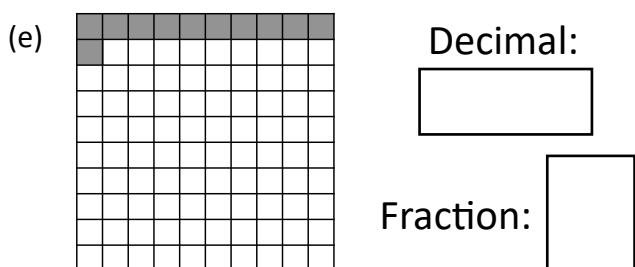
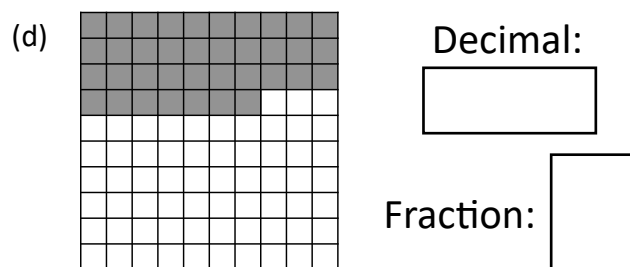
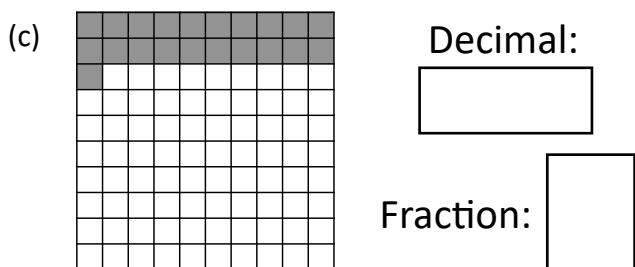
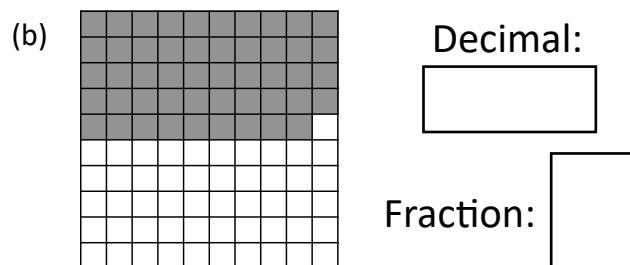
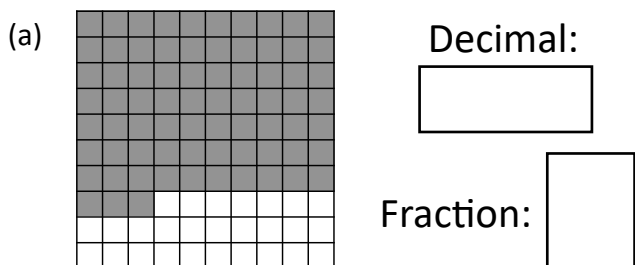
(d) = $\frac{1}{10}$

(2) Write each of these decimals as tenths, and then write the fraction as simply as possible.

(a) **0.2** = = (b) **0.4** = = (c) **0.6** = =

(d) **0.8** = = (e) **0.5** = =

(3) For each of these diagrams, find the shaded area, both as a decimal and as a fraction.



(4) For each of these diagrams, give the shaded area as a decimal and a fraction out of 100, then work out the fraction as simply as possible.

(a)		Decimal: <input type="text"/>	Fraction of 100: <input type="text"/>	Simplest Fraction: <input type="text"/>
(b)		Decimal: <input type="text"/>	Fraction of 100: <input type="text"/>	Simplest Fraction: <input type="text"/>
(c)		Decimal: <input type="text"/>	Fraction of 100: <input type="text"/>	Simplest Fraction: <input type="text"/>
(d)		Decimal: <input type="text"/>	Fraction of 100: <input type="text"/>	Simplest Fraction: <input type="text"/>
(e)		Decimal: <input type="text"/>	Fraction of 100: <input type="text"/>	Simplest Fraction: <input type="text"/>

(5) Write these fractions as decimals.

(a) $\frac{1}{5} = \text{[]}$

(b) $\frac{2}{5} = \text{[]}$

(c) $\frac{3}{5} = \text{[]}$

(d) $\frac{4}{5} = \text{[]}$

(e) $\frac{1}{8} = \text{[]}$

(f) $\frac{3}{8} = \text{[]}$

(g) $\frac{5}{8} = \text{[]}$

(h) $\frac{7}{8} = \text{[]}$

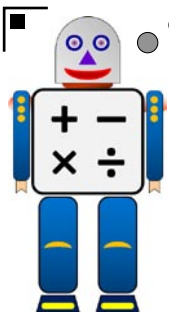
(i) $\frac{1}{20} = \text{[]}$

(j) $\frac{3}{20} = \text{[]}$

(k) $\frac{7}{20} = \text{[]}$

(l) $\frac{11}{20} = \text{[]}$





Maths Homework
this week is about:
**Digit Values and Multiplying
and Dividing by 10, 100,
1000 etc**

Name:

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(1) Give the value, in words, of the digit indicated by the arrow in each of these numbers.

(a) \downarrow
46

(c) \downarrow
642

(e) \downarrow
31 648

(g) \downarrow
613 825

(i) \downarrow
9 256 327

(b) \downarrow
387

(d) \downarrow
12 463

(f) \downarrow
49 613

(h) \downarrow
1 725 384

(j) \downarrow
3 426 574

(2) In each number, circle the digit equal to the value asked for.

(a) Circle the digit equal to **Two thousand.** **12 282**

(b) Circle the digit equal to **Four hundred.** **49 494**

(c) Circle the digit equal to **Eighty thousand.** **88 787**

(d) Circle the digit equal to **Three thousand.** **633 633**

(e) Circle the digit equal to **Four hundred thousand.** **448 844**

(f) Circle the digit equal to **Seventy thousand.** **7 776 777**

(g) Circle the digit equal to **Nine million.** **9 999 339**

(h) Circle the digit equal to **Twenty thousand.** **2 121 212**

(i) Circle the digit equal to **Three thousand.** **5 533 355**

(j) Circle the digit equal to **Two Million.** **2 222 222**

(3) Give the value, in words, of each of the digits indicated by the arrows.

(a) \downarrow
3.476

(c) \downarrow
26.453

(b) \downarrow
19.73

(d) \downarrow
18.576



(4) Write the answer to each multiplication in the box.

$$(a) 56 \times 10 = \boxed{}$$

$$(c) 103 \times 10 = \boxed{}$$

$$(e) 3\,030 \times 100 = \boxed{}$$

$$(g) 129 \times 1\,000 = \boxed{}$$

$$(i) 200 \times 1\,000 = \boxed{}$$

$$(k) 9\,203 \times 1\,000 = \boxed{}$$

$$(b) 29 \times 10 = \boxed{}$$

$$(d) 421 \times 100 = \boxed{}$$

$$(f) 5\,902 \times 100 = \boxed{}$$

$$(h) 390 \times 1\,000 = \boxed{}$$

$$(j) 1\,683 \times 1\,000 = \boxed{}$$

$$(l) 586 \times 10\,000 = \boxed{}$$

(5) Write the answer to each division in the box.

$$(a) 420 \div 10 = \boxed{}$$

$$(c) 2\,900 \div 10 = \boxed{}$$

$$(e) 8\,300 \div 100 = \boxed{}$$

$$(g) 3\,000 \div 100 = \boxed{}$$

$$(i) 2\,640\,000 \div 1\,000 = \boxed{}$$

$$(k) 126\,000 \div 1\,000 = \boxed{}$$

$$(b) 1\,380 \div 10 = \boxed{}$$

$$(d) 1\,700 \div 10 = \boxed{}$$

$$(f) 12\,600 \div 100 = \boxed{}$$

$$(h) 19\,000 \div 1\,000 = \boxed{}$$

$$(j) 1\,130\,000 \div 1\,000 = \boxed{}$$

$$(l) 330\,000 \div 10\,000 = \boxed{}$$

(6) Write the missing values for these calculations in the boxes.

$$(a) \quad \mathbf{99} \times \boxed{} = \mathbf{990}$$

$$(c) \quad \mathbf{1600} \div \mathbf{10} = \boxed{}$$

$$(e) \quad \boxed{} \times \mathbf{100} = \mathbf{2\,200}$$

$$(g) \quad \mathbf{6\,000} \div \mathbf{100} = \boxed{}$$

$$(i) \quad \mathbf{11} \times \boxed{} = \mathbf{11\,000}$$

$$(k) \quad \boxed{} \times \mathbf{100} = \mathbf{260\,000}$$

$$(b) \quad \boxed{} \div \mathbf{100} = \mathbf{390}$$

$$(d) \quad \mathbf{5} \times \boxed{} = \mathbf{5\,000}$$

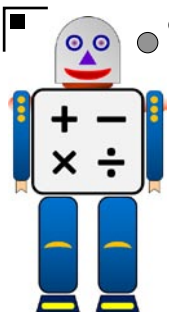
$$(f) \quad \mathbf{800} \times \mathbf{1\,000} = \boxed{}$$

$$(h) \quad \mathbf{9\,100} \div \boxed{} = \mathbf{910}$$

$$(j) \quad \mathbf{301\,000} \div \mathbf{100} = \boxed{}$$

$$(l) \quad \boxed{} \div \mathbf{10} = \mathbf{830}$$





Maths Homework
this week is about:

Multiplying Decimals by Whole Numbers

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(1) Try to work out these multiplications in your head. (You can use paper if you need to).

(a)

1.2		
2.5		
0.9		
4.5		

(b)

1.4		
2.6		
1.1		
3.3		

(c)

0.3		
1.4		
2.5		
0.8		

(2) Find the answer to each decimal multiplication.

(a)
$$\begin{array}{r} 3.9 \\ \times 8 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 9.6 \\ \times 4 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 8.2 \\ \times 3 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 5.8 \\ \times 7 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 7.5 \\ \times 9 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 6.3 \\ \times 5 \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 2.7 \\ \times 6 \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 9.9 \\ \times 2 \\ \hline \end{array}$$

(i)
$$\begin{array}{r} 3.6 \\ \times 7 \\ \hline \end{array}$$

(j)
$$\begin{array}{r} 9.2 \\ \times 6 \\ \hline \end{array}$$

(k)
$$\begin{array}{r} 5.4 \\ \times 9 \\ \hline \end{array}$$

(l)
$$\begin{array}{r} 4.9 \\ \times 8 \\ \hline \end{array}$$



(3) Find the answer to each decimal multiplication.

$$\begin{array}{r} \text{(a)} \quad 12.4 \\ \times \quad 5 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(b)} \quad 36.3 \\ \times \quad 4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(c)} \quad 23.7 \\ \times \quad 6 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(d)} \quad 65.5 \\ \times \quad 7 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(e)} \quad 17.6 \\ \times \quad 9 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(f)} \quad 39.9 \\ \times \quad 3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(g)} \quad 28.2 \\ \times \quad 8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(h)} \quad 52.8 \\ \times \quad 4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(i)} \quad 47.3 \\ \times \quad 7 \\ \hline \\ \hline \end{array}$$

(4) Multiply each decimal by the two digit whole number.

$$\begin{array}{r} \text{(a)} \quad 8.7 \\ \times 32 \\ \hline \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(b)} \quad 4.5 \\ \times 29 \\ \hline \\ \hline \\ \hline \end{array}$$

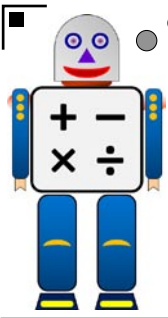
$$\begin{array}{r} \text{(c)} \quad 6.7 \\ \times 45 \\ \hline \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(d)} \quad 9.3 \\ \times 26 \\ \hline \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(e)} \quad 7.8 \\ \times 57 \\ \hline \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(f)} \quad 8.4 \\ \times 92 \\ \hline \\ \hline \\ \hline \end{array}$$





Maths Homework
this week is about:
**Divisions with Decimal
Answers and Rounding
Problems**

Name:

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All of the division questions here have decimal answers.
By showing your working, find the answer to each question.

(1) Find the answer if 24 is divided by 5.

Answer

(2) How many times does 8 go into 62.

Answer

(3) Divide 38 by 4.

Answer

(4) Calculate the answer if 82 is divided by 8.

Answer

(5) A pile of sand weighing 93 kg was divided into five equal piles.
Give the weight of each pile.

Answer

(6) £62 was shared equally between four children.
How much did each child get?

Answer

(7) A ribbon of length 98 cm was cut into eight equal pieces.
How long was each piece?

Answer

(8) 99 litres of water was divided exactly between five barrels.
How much water was in each barrel?

Answer

(9) Eight items cost £110 in total. If they each cost the same amount, how much does each item cost?

Answer

(10) A square has an area of 94 cm^2 . If it is split into four identical smaller squares, what is the area of each one?

Answer



In these questions you should round up the answer to the accuracy asked for.

(10) The number of visitors to a zoo one week was 4793. What is this to the nearest hundred?

Answer

(11) The number of sweets in a large jar is 168. What is this number to the nearest 10?

Answer

(12) A school shop made £45.26 on five days. By dividing this by five, find the mean average amount taken per day. Give your answer to the nearest penny.

Answer

(13) Three children had a total of £34.17. Divide this by three to give the mean average amount per person. Give your answer to the nearest 10p.

Answer

(14) A runner ran a total of 35.58 miles over six days. Divide this number by six to give the average distance ran each day. Give the answer to the nearest mile.

Answer

(15) Divide 30.88 by eight and give your answer to the nearest whole number.

Answer

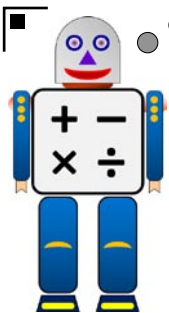
(16) A farm animal ate 34.37 kg of food in seven days. Divide this by seven to find the average weight of food eaten per day. Give your answer to the nearest kilogram.

Answer

(17) Divide 77.67 by nine and give your answer to one decimal place.

Answer





Maths Homework
this week is about:
**Fraction, Decimal and
Percentage
Equivalents**

Name:

Date:

Teacher:

Year
6

(1) Give each of these percentages as a decimal.

(a) **46 %** =

(c) **17 %** =

(e) **78 %** =

(g) **30 %** =

(i) **9 %** =

(b) **37 %** =

(d) **62 %** =

(f) **99 %** =

(h) **70 %** =

(j) **3 %** =

(2) Give each of these decimals as a percentage.

(a) **0.56** =

(c) **0.88** =

(e) **0.4** =

(g) **0.5** =

(i) **0.04** =

(b) **0.19** =

(d) **0.93** =

(f) **0.8** =

(h) **0.01** =

(j) **0.06** =

(3) Give each of these fractions as a percentage.

(a) $\frac{13}{100}$ =

(c) $\frac{91}{100}$ =

(e) $\frac{19}{100}$ =

(g) $\frac{1}{100}$ =

(i) $\frac{7}{100}$ =

(b) $\frac{49}{100}$ =

(d) $\frac{21}{100}$ =

(f) $\frac{37}{100}$ =

(h) $\frac{9}{100}$ =

(j) $\frac{71}{100}$ =

(4) Give each of these percentages as a fraction.

(a) **81 %** =

(c) **17 %** =

(e) **31 %** =

(g) **99 %** =

(i) **3 %** =

(b) **77 %** =

(d) **23 %** =

(f) **11 %** =

(h) **59 %** =

(j) **41 %** =



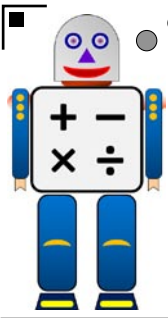
(5) Fill in the missing values in this table. Give fractions in the simplest form.

	Fraction	Decimal	Percentage
(a)	<input type="text"/>	0.1	<input type="text"/>
(b)	$\frac{2}{5}$	<input type="text"/>	<input type="text"/>
(c)	<input type="text"/>	0.7	<input type="text"/>
(d)	<input type="text"/>	<input type="text"/>	25 %
(e)	$\frac{3}{4}$	<input type="text"/>	<input type="text"/>
(f)	<input type="text"/>	<input type="text"/>	80 %
(g)	<input type="text"/>	0.125	<input type="text"/>
(h)	$\frac{1}{40}$	<input type="text"/>	<input type="text"/>
(i)	<input type="text"/>	0.7	<input type="text"/>
(j)	<input type="text"/>	<input type="text"/>	60 %
(k)	$\frac{1}{5}$	<input type="text"/>	<input type="text"/>
(l)	<input type="text"/>	<input type="text"/>	64 %
(m)	$\frac{22}{25}$	<input type="text"/>	<input type="text"/>
(n)	<input type="text"/>	0.28	<input type="text"/>
(o)	<input type="text"/>	0.12	<input type="text"/>
(p)	$\frac{5}{8}$	<input type="text"/>	<input type="text"/>
(q)	<input type="text"/>	<input type="text"/>	87.5 %
(r)	<input type="text"/>	<input type="text"/>	90 %
(s)	$\frac{24}{25}$	<input type="text"/>	<input type="text"/>
(t)	<input type="text"/>	0.06	<input type="text"/>

(6) (a) A pupil scored 18 out of 20 in a test.
What is this as a percentage?

(b) Another pupil scored 13 out of 20 in the test.
What is this as a percentage?





Maths Homework
this week is about:

Ratio Problems

Name: _____

Date: _____

Teacher: _____

Year

6

(1) This recipe makes 10 cup cakes. Give the quantities for the number of cakes below:

(a) 20 cakes

(b) 15 cakes

(c) 35 cakes

Flour	200 g	_____	_____	_____
Butter	180 g	_____	_____	_____
Sugar	160 g	_____	_____	_____
Eggs	4	_____	_____	_____

(2) Here is a recipe to make 25 lemon shortbread biscuits.

Give the quantities for the number of biscuits below:

(a) 50 biscuits

(b) 5 biscuits

(c) 80 biscuits

Flour	450g	_____	_____	_____
Butter	300g	_____	_____	_____
Sugar	150g	_____	_____	_____
Lemon essence	10g	_____	_____	_____

(3) The ratio for the amounts of money in each pair of boxes is given.

Find the missing amount of money in each pair of boxes.

(a) Ratio
1 : 3

£7 : _____

(b) Ratio
1 : 5

_____ : **£45**

(c) Ratio
1 : 2

£4.50 : _____

(d) Ratio
1 : 6

£2.50 : _____

(e) Ratio
1 : 7

_____ : **£10.50**

(f) Ratio
1 : 9

£8 : _____

(g) Ratio
1 : 12

_____ : **£108**

(h) Ratio
1 : 8

£1.25 : _____

(i) Ratio
1 : 4

£8.50 : _____

(j) Ratio
1 : 11

_____ : **£12.21**

(k) Ratio
1 : 10

£9.61 : _____

(l) Ratio
1 : 7

_____ : **£2.80**



(4) Helen and Mark have ages in the ratio 1 : 5.

If Helen is 7 years old, how old is Mark?

(5) Kim and Ali have ages in the ratio 1 : 3.

If Ali is 27 years old, how old is Kim?

(6) The ratio of water to orange juice in a drink is 12 : 1.

(a) If you use 120 ml of water, how much orange juice do you need?

(b) If you use 15 ml of orange juice, how much water must you add to this?

(7) The ratio of oak trees to ash trees in a wood is 1 : 6.

If there are 72 ash trees, how many oak trees are there?

(8) The ratio of staff to pupils in a small school is 1 : 5.

If there are 17 members of staff, how many pupils are there?

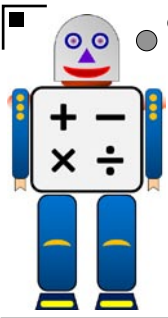
(9) The ratio of cows to sheep on a farm is 1 : 16.

There are 112 sheep. How many cows are there?

(10) The ratio of books to CDs in a library is 9 : 2.

If there are 2700 books, how many CDs are there?





Maths Homework
this week is about:

Percentages

Name:

Date:

Teacher:

Year

6

(1) (a) Find 10% of 240

(c) Find 20% of 150

(e) Find 40% of £70

(b) Find 10% of 143

(d) Find 20% of 44

(f) Find 60% of 55m.

(2)



For each of the following prices, find 15%,
and then subtract this to find the sale value.

(a)

	10% is _____	Sale Price <input type="text"/>
	5% is _____	
	15% is _____	

(b)

	10% is _____	Sale Price <input type="text"/>
	5% is _____	
	15% is _____	

(c)

	10% is _____	Sale Price <input type="text"/>
	5% is _____	
	15% is _____	

(d)

	10% is _____	Sale Price <input type="text"/>
	5% is _____	
	15% is _____	

(e)

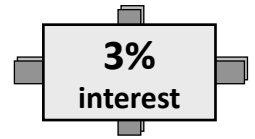
	10% is _____	Sale Price <input type="text"/>
	5% is _____	
	15% is _____	

(f)

	10% is _____	Sale Price <input type="text"/>
	5% is _____	
	15% is _____	



- (3) A bank offers 3% interest per year on savings.
For each of these values, find 3%, and then add this to the amount in the account to find the total in the account after the interest has been added.



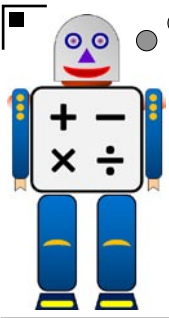
	Amount in account	3% interest	Total after interest is added
(a)	£200	1% is _____ 3% is _____	<input type="text"/>
(b)	£500	1% is _____ 3% is _____	<input type="text"/>
(c)	£450	1% is _____ 3% is _____	<input type="text"/>
(d)	£75	1% is _____ 3% is _____	<input type="text"/>
(e)	£3000	1% is _____ 3% is _____	<input type="text"/>
(f)	£6750	1% is _____ 3% is _____	<input type="text"/>

- (4) To find 17.5%, we can find 10% + 5% + 2.5%.

Find 17.5% of each of these amounts.

(a)	40	(b)	88	(c)	180	(d)	900
10% is _____ 5% is _____ 2.5% is _____ 17.5% is _____		10% is _____ 5% is _____ 2.5% is _____ 17.5% is _____		10% is _____ 5% is _____ 2.5% is _____ 17.5% is _____		10% is _____ 5% is _____ 2.5% is _____ 17.5% is _____	





Maths Homework
this week is about:

Similar Shapes

Name:

Date:

Teacher:

Year
6

- (1) Each pair of rectangles is similar. For each pair, find the scale factor for the lengths, and then find the missing length, indicated by the box. (The diagrams are not drawn to scale).

(a)

Scale Factor

(b)

Scale Factor

(c)

Scale Factor

(d)

Scale Factor

- (2) These pairs of triangles are similar. Find the scale factor and missing length, indicated by the box, for each one.

(a)

Scale Factor

(b)

Scale Factor

(c)

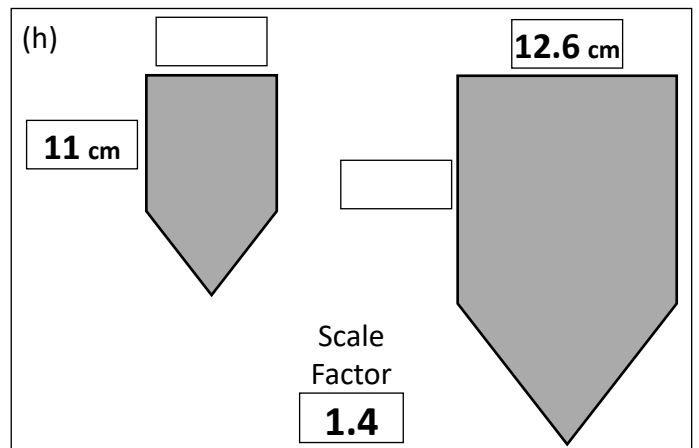
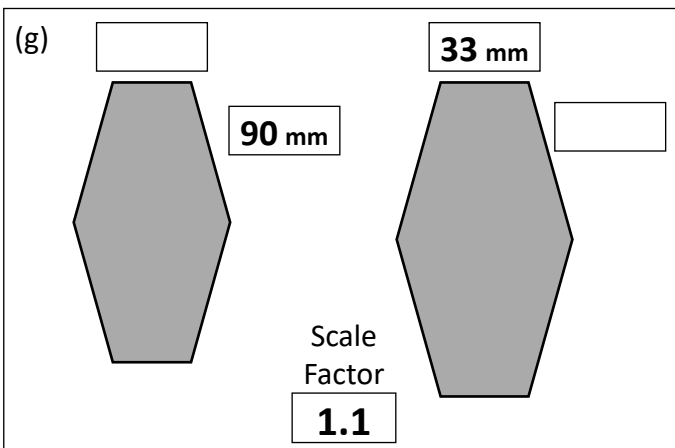
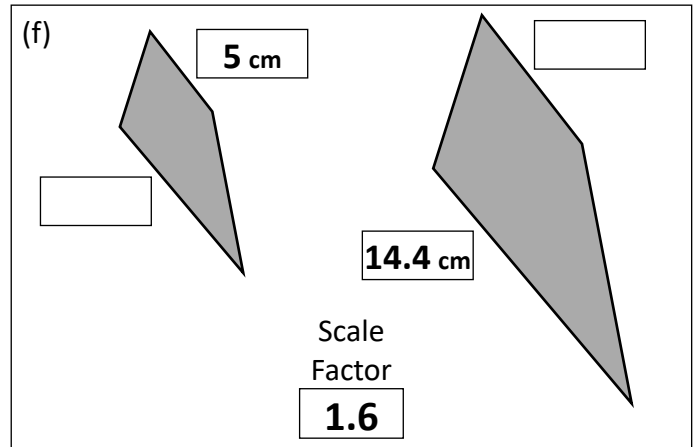
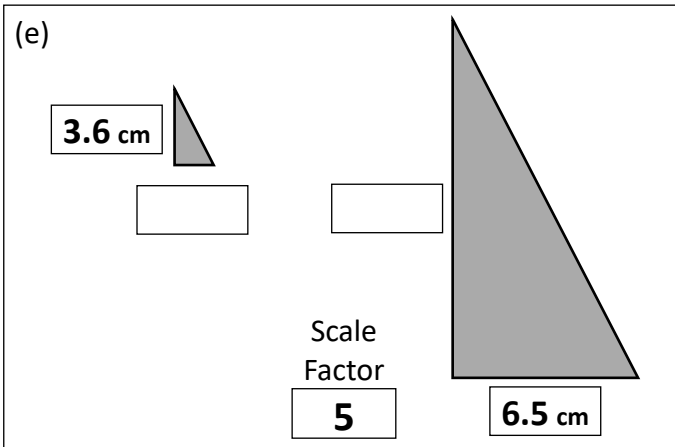
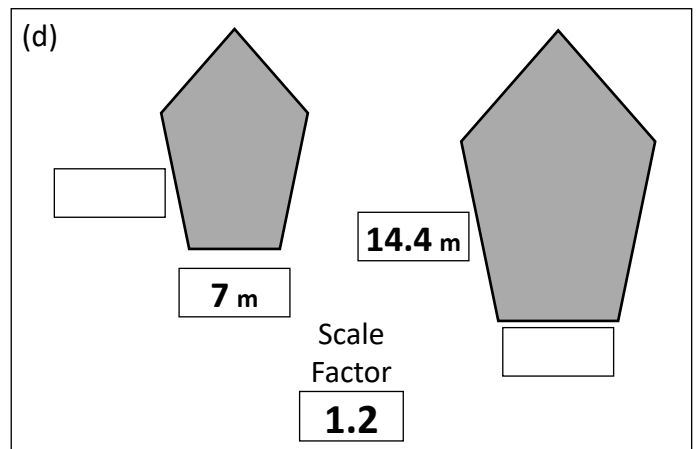
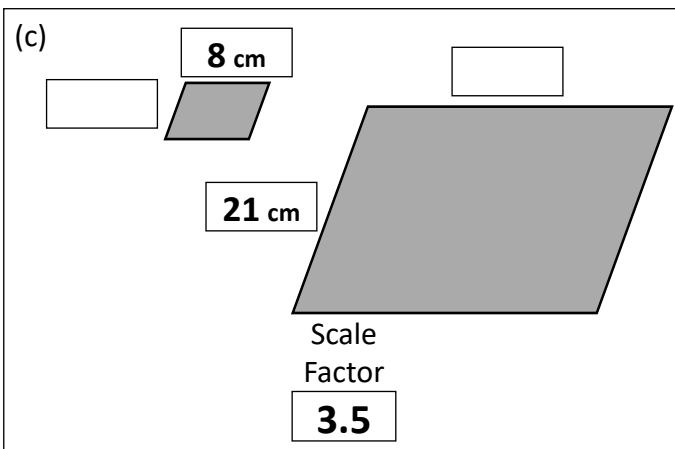
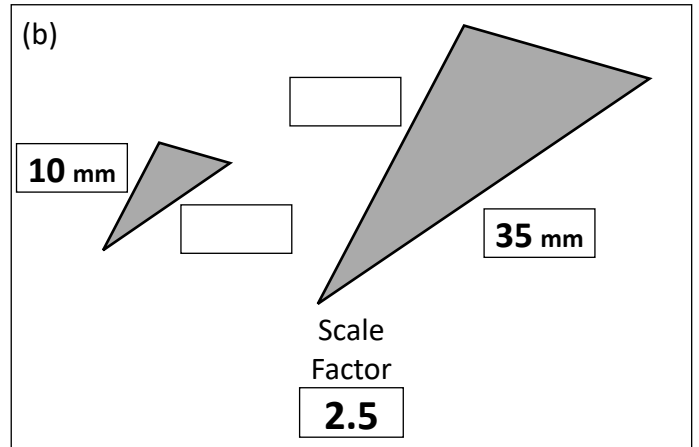
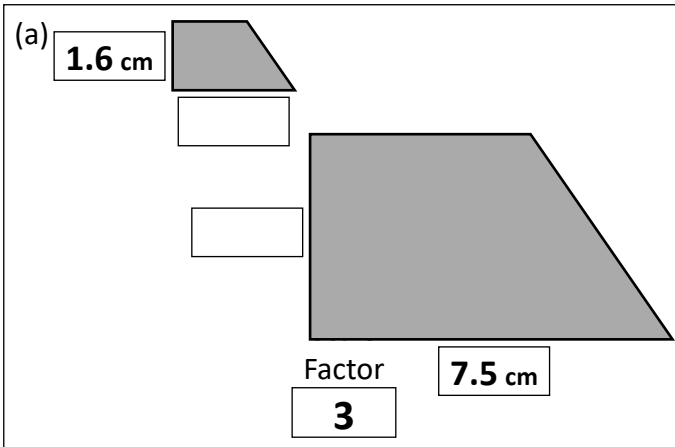
Scale Factor

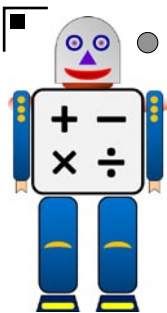
(d)

Scale Factor



(3) Use the given scale factor to find the missing side lengths in each pair of similar shapes.
(The diagrams are not drawn to scale).





Maths Homework
this week is about:

Unequal Sharing

Name:

Date:

Teacher:

Year

6

- (1) A running track is 400m long. A runner tripped up $\frac{2}{5}$ of the way around the track. How far had the runner ran when they tripped up?

Distance:

- (2) A box contained 36 sweets. Sue ate $\frac{5}{9}$ of the sweets and Joe ate the rest.

How many sweets did they each eat?

Sue:

Joe:

- (3) Sasha and Kai share £50. If Sasha gets £6 more than Kai, how much do they each get?

Kai:

Sasha:

- (4) The total area of a field is 24 m². The area planted with carrots is 9 m² more than the area planted with potatoes. Find the area for each crop.

Potatoes:

Carrots:

- (5) The total height of an elm tree and a birch tree is 18 m. The elm tree is 4 m taller than the birch tree. Find the height of both trees.

Birch:

Elm:

- (6) Karen spent 70 minutes watching TV. She watched a drama and a comedy. If the drama lasted for $\frac{3}{7}$ of the time, give the length of both programmes.

Drama:

Comedy:



- (7) A parent and a child paid a total of £30 to visit a museum. The child price was £8 cheaper than the parent price. Find the price for each.

Child: Parent:

- (8) Sheba ate $\frac{2}{11}$ of the dog biscuits from her bowl. She ate 6 biscuits.

How many biscuits were in the bowl at the beginning?

Number of biscuits:

- (9) A field has an area of 56 m^2 . $\frac{3}{8}$ of the field has been planted with oats and the rest has been planted with wheat.

What area of the field has been planted with each?

Oats: Wheat:

- (10) Two lighthouses have a total height of 22 m. The tall lighthouse is 5 m taller than the short lighthouse. Find the height of each.

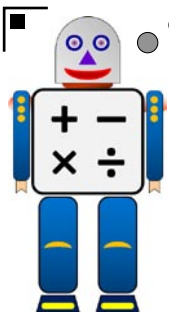
Short lighthouse Tall lighthouse:

- (11) A red money box and a yellow money box have a total of £12.50 in them. If the red money box has £1.50 more than the yellow money box, find out how much money is in each box.

Yellow box: Red box:

- (12) Paul and Bob built a wall. There are a total of 27 rows of bricks in the wall. If Paul built 3 more rows than Bob, how many rows did each build?

Bob: Paul: 



Maths Homework
this week is about:

Simple Formulae

Name:

Date:

Teacher:

Year

6

(1) Find the value of $3m + 8$ when:

(a) $m = 2$

(b) $m = 5$

(c) $m = 10$

(d) $m = 20$

(e) $m = 30$

(2) Find the value of $7t + 9$ when:

(a) $t = 3$

(b) $t = 6$

(c) $t = 8$

(d) $t = 16$

(e) $t = 20$

(3) Find the value of $12r + 11$ when:

(a) $r = 1$

(b) $r = 0.5$

(c) $r = 0.2$

(d) $r = 0.7$

(e) $r = 2$



(4) Find the value of $5e - 4$ when:

(a) $e = 5$

(b) $e = 6$

(c) $e = 7$

(d) $e = 10$

(e) $e = 20$

(5) Find the value of $9u - 7$ when:

(a) $u = 3$

(b) $u = 6$

(c) $u = 9$

(d) $u = 12$

(e) $u = 24$

(6) Find the value of $6w - 14$ when:

(a) $w = 1$

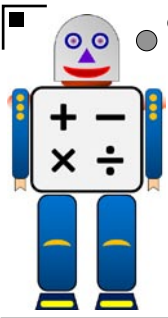
(b) $w = 2$

(c) $w = 5$

(d) $w = 0.5$

(e) $w = 2.5$





Maths Homework
this week is about:

Number Sequences

Name: _____

Date: _____

Teacher: _____

Year
6

- (1) Find the missing number in each of these number sequences and give the rule to get from one term to the next.

(a)	<input type="text" value="7"/>	<input type="text"/>	<input type="text" value="13"/>	<input type="text" value="16"/>	<input type="text" value="19"/>	Rule: _____
(b)	<input type="text" value="1"/>	<input type="text" value="9"/>	<input type="text" value="17"/>	<input type="text"/>	<input type="text" value="33"/>	Rule: _____
(c)	<input type="text"/>	<input type="text" value="56"/>	<input type="text" value="51"/>	<input type="text" value="46"/>	<input type="text" value="41"/>	Rule: _____
(d)	<input type="text" value="32"/>	<input type="text" value="39"/>	<input type="text" value="46"/>	<input type="text" value="53"/>	<input type="text"/>	Rule: _____
(e)	<input type="text" value="13"/>	<input type="text" value="9"/>	<input type="text"/>	<input type="text" value="1"/>	<input type="text" value="-3"/>	Rule: _____
(f)	<input type="text" value="0"/>	<input type="text" value="12"/>	<input type="text" value="24"/>	<input type="text"/>	<input type="text" value="48"/>	Rule: _____
(g)	<input type="text" value="27"/>	<input type="text" value="16"/>	<input type="text" value="5"/>	<input type="text" value="-6"/>	<input type="text"/>	Rule: _____
(h)	<input type="text" value="-5"/>	<input type="text"/>	<input type="text" value="27"/>	<input type="text" value="43"/>	<input type="text" value="59"/>	Rule: _____

- (2) The first number and term to term rule for each sequence is given below.
Find the next four terms in each sequence.

(a)	Rule: <input type="text" value="Add 9"/>	<input type="text" value="7"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(b)	Rule: <input type="text" value="Take 6"/>	<input type="text" value="21"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(c)	Rule: <input type="text" value="Add 15"/>	<input type="text" value="2"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(d)	Rule: <input type="text" value="Take 13"/>	<input type="text" value="54"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(e)	Rule: <input type="text" value="Take 7"/>	<input type="text" value="8"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(f)	Rule: <input type="text" value="Add 12"/>	<input type="text" value="5"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(g)	Rule: <input type="text" value="Add 21"/>	<input type="text" value="-10"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(h)	Rule: <input type="text" value="Take 21"/>	<input type="text" value="100"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



(3) Find the first five terms of the sequence with the rule

$$3n + 1$$

n	1	2	3	4	5
$3n + 1$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

(4) Find the first five terms of the sequence with the rule

$$4n + 6$$

n	1	2	3	4	5
$4n + 6$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

(5) Find the first five terms of the sequence with the rule

$$8n - 3$$

n	1	2	3	4	5
$8n - 3$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

(6) Find the first five terms of the sequence with the rule

$$12n - 9$$

n	1	2	3	4	5
$12n - 9$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

(7) Give the n^{th} term rule for each of these sequences.

(a) n^{th} term:

(b) n^{th} term:

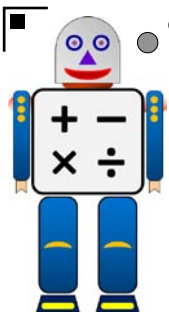
(c) n^{th} term:

(d) n^{th} term:

(e) n^{th} term:

(f) n^{th} term:





Maths Homework
this week is about:

Missing Number Problems

Name:

Date:

Teacher:

Year

6

- (1) In each set of boxes, the number in the top box is found by adding the two numbers in the bottom boxes. Find the missing number in each set of boxes.

(a)
$$\begin{array}{c} \boxed{} \\ \boxed{15} \quad \boxed{21} \end{array}$$

(b)
$$\begin{array}{c} \boxed{} \\ \boxed{23} \quad \boxed{41} \end{array}$$

(c)
$$\begin{array}{c} \boxed{} \\ \boxed{29} \quad \boxed{31} \end{array}$$

(d)
$$\begin{array}{c} \boxed{104} \\ \boxed{} \quad \boxed{56} \end{array}$$

(e)
$$\begin{array}{c} \boxed{171} \\ \boxed{98} \quad \boxed{} \end{array}$$

(f)
$$\begin{array}{c} \boxed{231} \\ \boxed{} \quad \boxed{105} \end{array}$$

(g)
$$\begin{array}{c} \boxed{} \\ \boxed{213} \quad \boxed{187} \end{array}$$

(h)
$$\begin{array}{c} \boxed{475} \\ \boxed{} \quad \boxed{283} \end{array}$$

(i)
$$\begin{array}{c} \boxed{548} \\ \boxed{222} \quad \boxed{} \end{array}$$

(j)
$$\begin{array}{c} \boxed{999} \\ \boxed{272} \quad \boxed{} \end{array}$$

(k)
$$\begin{array}{c} \boxed{} \\ \boxed{642} \quad \boxed{309} \end{array}$$

(l)
$$\begin{array}{c} \boxed{783} \\ \boxed{} \quad \boxed{322} \end{array}$$

- (2) Find the missing number in each of the following calculations.

(a) $8 \times \boxed{} = 72$

(c) $\boxed{} - 28 = 48$

(e) $108 \div 9 = \boxed{}$

(g) $93 + \boxed{} = 169$

(i) $\boxed{} \times 15 = 105$

(b) $\boxed{} + 231 = 438$

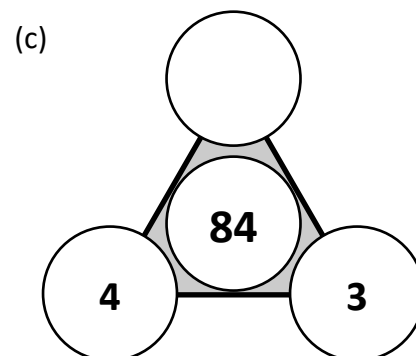
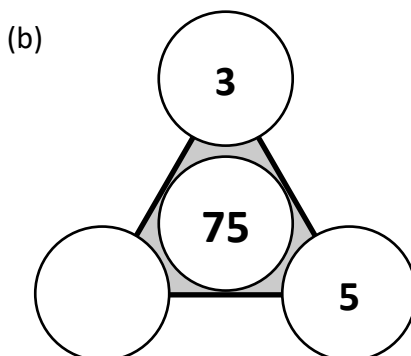
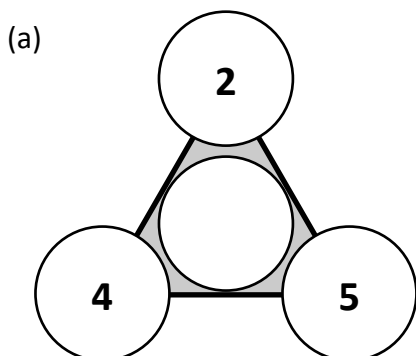
(d) $216 \div \boxed{} = 9$

(f) $191 - 63 = \boxed{}$

(h) $\boxed{} \div 35 = 8$

(j) $942 - \boxed{} = 513$

- (3) The three numbers at the corners of each triangle are multiplied to give the number in the centre. Find the missing number in each question.



(4) Here is a missing number problem.

$$3 \times \square + 4 = 19$$

Instead of the box, we could use a letter to stand for the missing number. For example:

$$3 \times t + 4 = 19$$

Use the letter **t** instead of the box to write each of the following missing number problems, and then for each one, find the value of **t**.

(a) $5 \times \square = 45$

(b) $7 \times \square = 77$

(c) $2 \times \square + 12 = 26$

(d) $3 \times \square + 11 = 35$

(e) $5 \times \square - 9 = 51$

(f) $4 \times \square - 7 = 13$

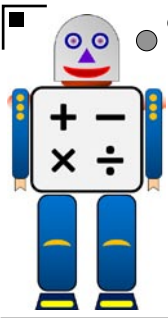
(g) $11 \times \square + 6 = 105$

(h) $12 \times \square - 10 = 74$

(i) $9 \times \square + 6 = 114$

(j) $14 \times \square - 8 = 62$





Maths Homework
this week is about:
**Equations with Two
Unknowns, and Two
Variable Combinations**

Name: _____

Date: _____

Teacher: _____

Year
6

(1) Circle the pair of values which work in each question.

(a) $3 \times \text{Hexagon} + 2 \times \text{Triangle} = 16$

Hexagon = 2 Triangle = 4	Hexagon = 5 Triangle = 1	Hexagon = 4 Triangle = 2	Hexagon = 1 Triangle = 5
-----------------------------	-----------------------------	-----------------------------	-----------------------------

(b) $4 \times \text{Hexagon} + 3 \times \text{Triangle} = 29$

Hexagon = 7 Triangle = 1	Hexagon = 1 Triangle = 7	Hexagon = 3 Triangle = 5	Hexagon = 5 Triangle = 3
-----------------------------	-----------------------------	-----------------------------	-----------------------------

(c) $7 \times \text{Hexagon} - 5 \times \text{Triangle} = 32$

Hexagon = 3 Triangle = 2	Hexagon = 6 Triangle = 2	Hexagon = 2 Triangle = 3	Hexagon = 2 Triangle = 6
-----------------------------	-----------------------------	-----------------------------	-----------------------------

(d) $6 \times \text{Hexagon} + 2 \times \text{Triangle} = 44$

Hexagon = 6 Triangle = 2	Hexagon = 2 Triangle = 6	Hexagon = 7 Triangle = 1	Hexagon = 1 Triangle = 7
-----------------------------	-----------------------------	-----------------------------	-----------------------------

(e) $9 \times \text{Hexagon} - 7 \times \text{Triangle} = 15$

Hexagon = 4 Triangle = 3	Hexagon = 7 Triangle = 5	Hexagon = 5 Triangle = 7	Hexagon = 3 Triangle = 1
-----------------------------	-----------------------------	-----------------------------	-----------------------------

(f) $8 \times \text{Hexagon} - 4 \times \text{Triangle} = 68$

Hexagon = 9 Triangle = 4	Hexagon = 4 Triangle = 9	Hexagon = 3 Triangle = 10	Hexagon = 10 Triangle = 3
-----------------------------	-----------------------------	------------------------------	------------------------------

(2) Circle the pair of values which work in each equation.

(a) $6 \times a + 2 \times b = 28$

$a = 4$ $b = 1$	$a = 3$ $b = 5$	$a = 1$ $b = 4$	$a = 5$ $b = 3$
--------------------	--------------------	--------------------	--------------------

(b) $7 \times a - 4 \times b = 6$

$a = 2$ $b = 2$	$a = 3$ $b = 3$	$a = 1$ $b = 1$	$a = 3$ $b = 5$
--------------------	--------------------	--------------------	--------------------

(c) $4 \times a + 9 \times b = 42$

$a = 4$ $b = 1$	$a = 2$ $b = 4$	$a = 6$ $b = 2$	$a = 2$ $b = 6$
--------------------	--------------------	--------------------	--------------------

(d) $8 \times a - 5 \times b = 46$

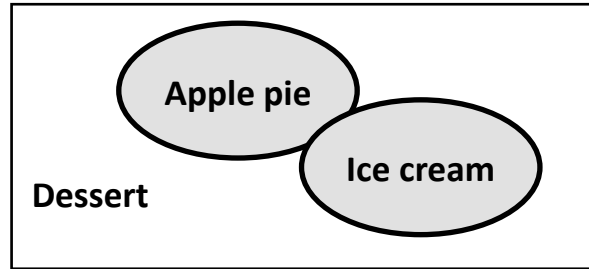
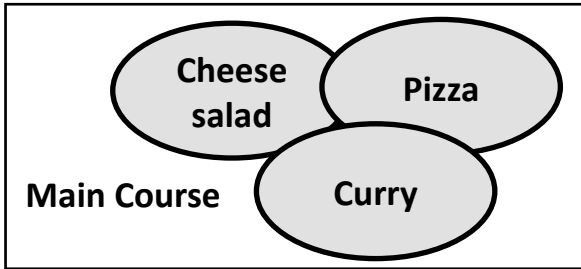
$a = 10$ $b = 12$	$a = 6$ $b = 5$	$a = 5$ $b = 6$	$a = 12$ $b = 10$
----------------------	--------------------	--------------------	----------------------

(e) $6 \times a + 7 \times b = 62$

$a = 1$ $b = 8$	$a = 8$ $b = 1$	$a = 10$ $b = 2$	$a = 2$ $b = 10$
--------------------	--------------------	---------------------	---------------------



(3) A school canteen offered the following menu choices one day.

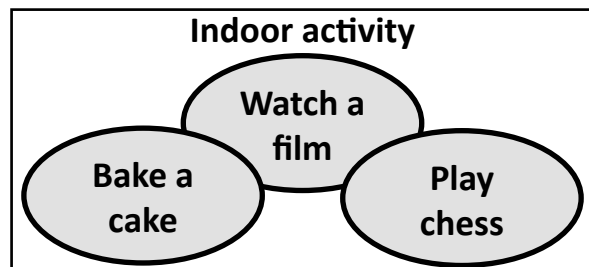
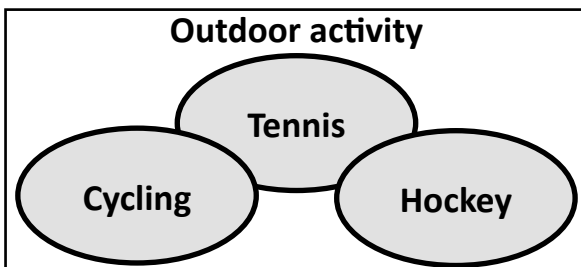


A pupil is allowed one **main course** and one **dessert**.

List, in the box on the right, all the possible combinations they could have.

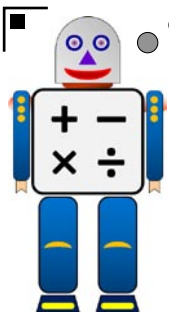
(4) A school activity day offers pupils a choice of one **outdoor activity** followed by one **indoor activity**.

The following options are available:



List, in the box on the right, all the possible combinations of activities that a pupil could do.





Maths Homework
this week is about:

Calculating and Converting Units of Length

Name:

Date:

Teacher:

Year

6

(1) Use the conversion fact below to find the missing approximate values in the following table.

	Miles	Kilometres
(a)	<input type="text"/>	24
(b)	25	<input type="text"/>
(c)	40	<input type="text"/>
(d)	<input type="text"/>	16
(e)	<input type="text"/>	0.8
(f)	2.5	<input type="text"/>
(g)	<input type="text"/>	12
(h)	100	<input type="text"/>
(i)	5.5	<input type="text"/>
(j)	<input type="text"/>	44

5 miles
is approximately
8 kilometres

(2) Use these conversion facts to find the missing values in the following questions.

- | | |
|--------------------------------------|--------------------------------------|
| (a) 3 cm = <input type="text"/> mm | (k) 16 m = <input type="text"/> cm |
| (b) 7 cm = <input type="text"/> mm | (l) 0.5 m = <input type="text"/> cm |
| (c) 12 cm = <input type="text"/> mm | (m) 0.36 m = <input type="text"/> cm |
| (d) 26 cm = <input type="text"/> mm | (n) 0.04 m = <input type="text"/> cm |
| (e) 8.3 cm = <input type="text"/> mm | (o) 270 cm = <input type="text"/> m |
| (f) 7.6 cm = <input type="text"/> mm | (p) 48 cm = <input type="text"/> m |
| (g) 0.4 cm = <input type="text"/> mm | (q) 8000 m = <input type="text"/> km |
| (h) 6 mm = <input type="text"/> cm | (r) 560 m = <input type="text"/> km |
| (i) 58 mm = <input type="text"/> cm | (s) 7 km = <input type="text"/> m |
| (j) 8 m = <input type="text"/> cm | (t) 0.6 km = <input type="text"/> m |

10 mm = 1 cm
100 cm = 1 m
1000 m = 1 km



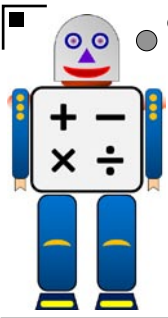
- (3) Say which would be the best metric unit to measure each of the items in the table below. (Choose from mm, cm, m, km).

	Item	Metric Unit
(a)	Length of a pencil	<input type="text"/>
(b)	Distance from the earth to the moon	<input type="text"/>
(c)	Length of a room	<input type="text"/>
(d)	Thickness of a matchstick	<input type="text"/>
(e)	Distance between two towns	<input type="text"/>
(f)	Width of a book	<input type="text"/>
(g)	Length of a bus	<input type="text"/>
(h)	Distance around a running track	<input type="text"/>
(i)	Thickness of an exercise book	<input type="text"/>
(j)	Length of a computer keyboard	<input type="text"/>

- (4) This set of zoo direction signposts have accidentally had the distances to various animals given in km, cm, or mm. Convert each distance into metres.

(a)	Lions	2 500 cm	Lions	<input type="text"/>	m
(b)	Tigers	12 500 cm	Tigers	<input type="text"/>	m
(c)	Leopards	40 000 mm	Leopards	<input type="text"/>	m
(d)	Cheetahs	320 000 mm	Cheetahs	<input type="text"/>	m
(e)	Jaguars	8 200 cm	Jaguars	<input type="text"/>	m
(f)	Elephants	620 000 mm	Elephants	<input type="text"/>	m
(g)	Giraffes	0.5 km	Giraffes	<input type="text"/>	m
(h)	Penguins	7 600 cm	Penguins	<input type="text"/>	m
(i)	Sea Lions	0.095 km	Sea Lions	<input type="text"/>	m
(j)	Gorillas	440 000 mm	Gorillas	<input type="text"/>	m
(k)	Hyenas	0.76 km	Hyenas	<input type="text"/>	m
(l)	Wolves	265 000 mm	Wolves	<input type="text"/>	m





Maths Homework
this week is about:

**Using Measurements
(Mass and Volume)**

Name:

Date:

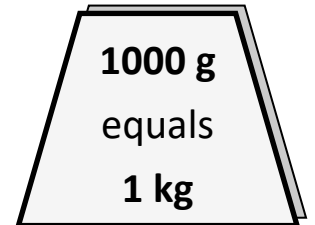
Teacher:

Year

6

(1) Find the missing values in the following table.

	Grams	Kilograms
(a)	<input type="text"/>	3
(b)	<input type="text"/>	5.65
(c)	360	<input type="text"/>
(d)	<input type="text"/>	0.027
(e)	86 000	<input type="text"/>
(f)	49 300	<input type="text"/>
(g)	<input type="text"/>	78.24
(h)	928 000	<input type="text"/>
(i)	<input type="text"/>	3.07
(j)	60	<input type="text"/>



(2) Give each of these weights as a decimal value in kilograms.

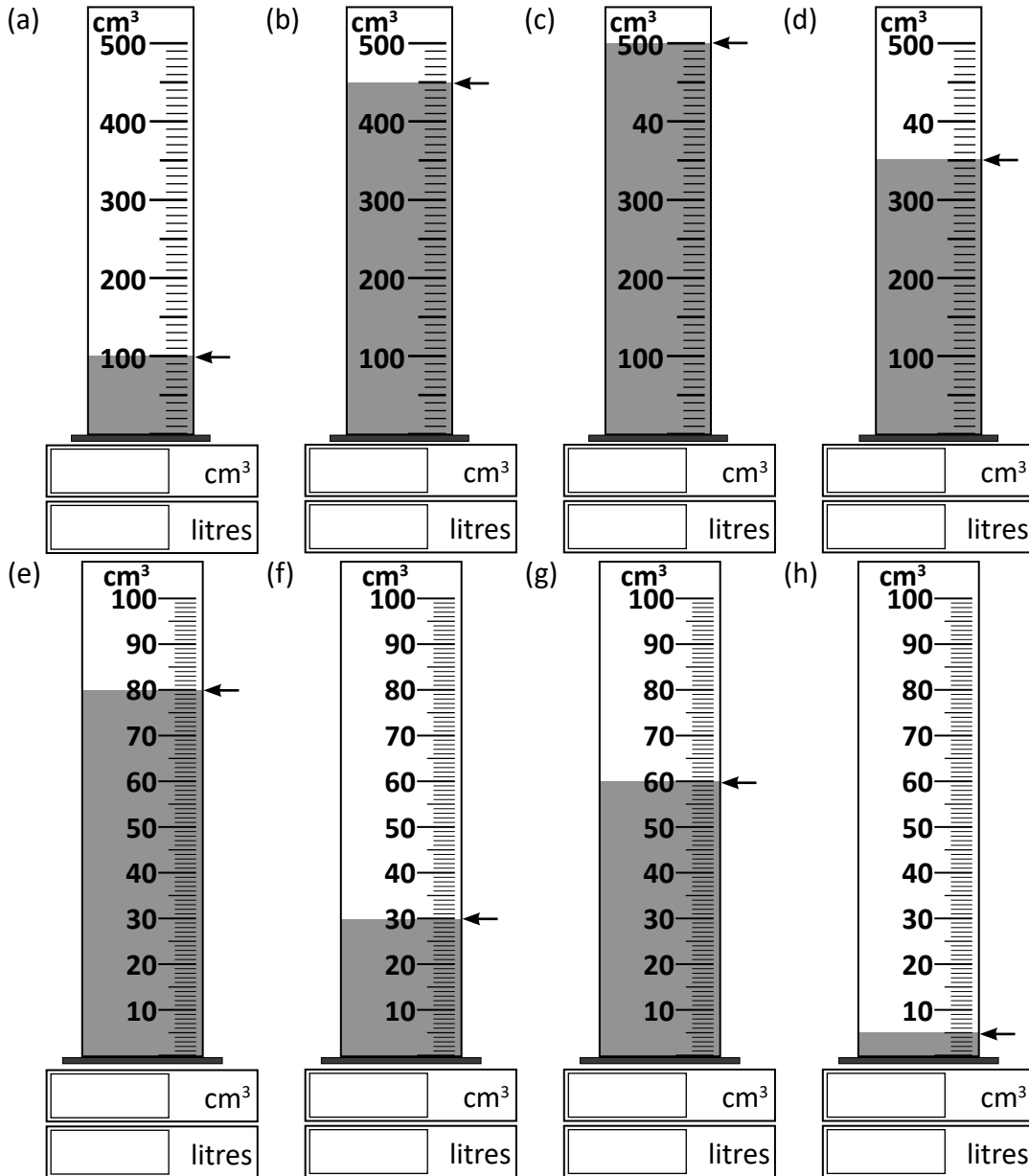
(a)	2 kilograms	460 grams	=	<input type="text"/>	kg
(b)	7 kilograms	823 grams	=	<input type="text"/>	kg
(c)	9 kilograms	54 grams	=	<input type="text"/>	kg
(d)	14 kilograms	620 grams	=	<input type="text"/>	kg
(e)	23 kilograms	756 grams	=	<input type="text"/>	kg
(f)	147 kilograms	13 grams	=	<input type="text"/>	kg

(3) Give each of these weights in kilograms and grams.

(a)	3.5 kg	=	<input type="text"/> kilograms	<input type="text"/> grams
(b)	8.02 kg	=	<input type="text"/> kilograms	<input type="text"/> grams
(c)	6.054 kg	=	<input type="text"/> kilograms	<input type="text"/> grams
(d)	39.08 kg	=	<input type="text"/> kilograms	<input type="text"/> grams
(e)	76.684 kg	=	<input type="text"/> kilograms	<input type="text"/> grams
(f)	235.14 kg	=	<input type="text"/> kilograms	<input type="text"/> grams



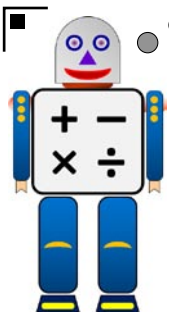
(4) Give the reading, in cm^3 , on each of these measuring cylinders, and then convert each value into litres.



(5) Find the missing values in this table.

(a)	<input type="text"/> cm^3	6	litres
(b)	<input type="text"/> cm^3	11	litres
(c)	3 700 cm^3	<input type="text"/>	litres
(d)	<input type="text"/> cm^3	9.4	litres
(e)	5 260 cm^3	<input type="text"/>	litres
(f)	<input type="text"/> cm^3	8.103	litres
(g)	12 060 cm^3	<input type="text"/>	litres
(h)	125 000 cm^3	<input type="text"/>	litres
(i)	<input type="text"/> cm^3	0.8	litres
(j)	43 cm^3	<input type="text"/>	litres





Maths Homework
this week is about:
**Area and Perimeter of
Parallelograms and
Triangles**

Name: _____

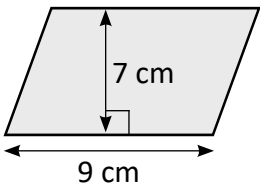
Date: _____

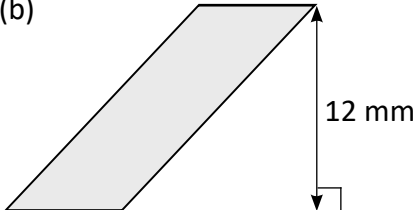
Teacher: _____

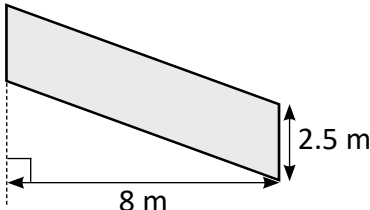
Year
6

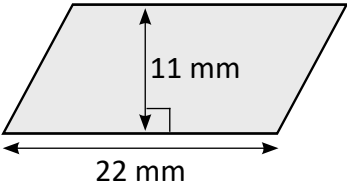
(1) Find the area of each of these parallelograms.

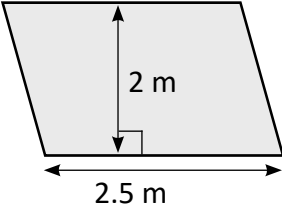
The diagrams on this sheet
are not drawn to scale.

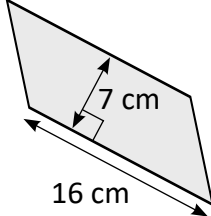
(a) 
Area = _____

(b) 
Area = _____

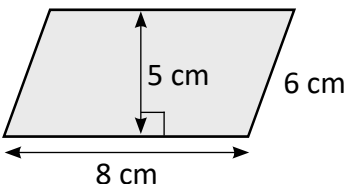
(c) 
Area = _____

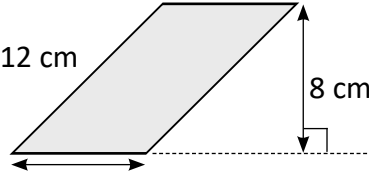
(d) 
Area = _____

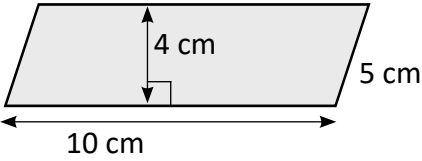
(e) 
Area = _____

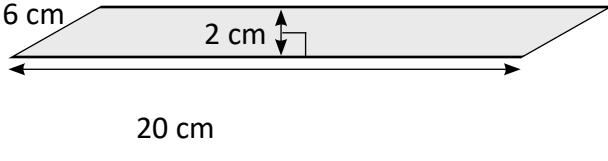
(f) 
Area = _____

(2) These parallelograms all have an area of 40cm^2 , but they have different perimeters.
Find the perimeter of each one.

(a) 
Perimeter = _____

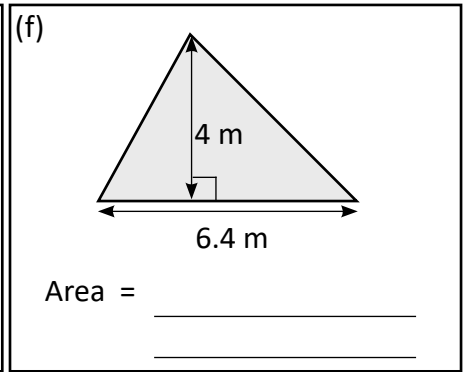
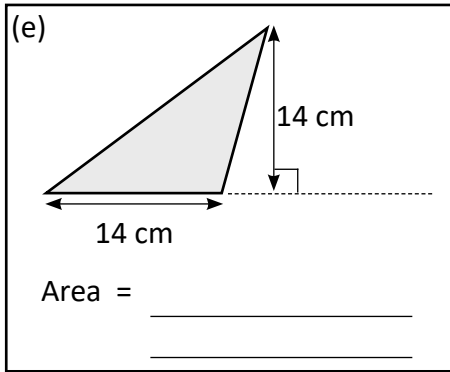
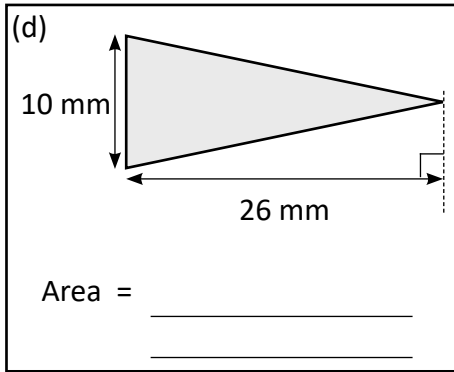
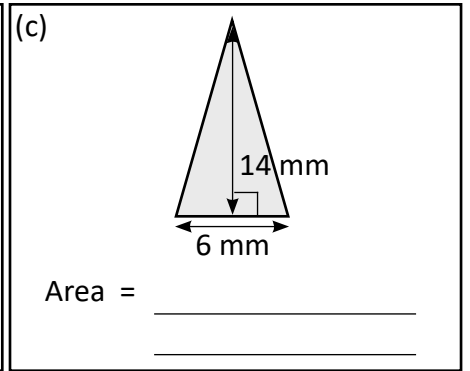
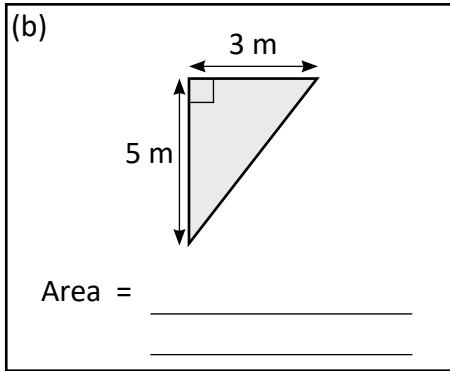
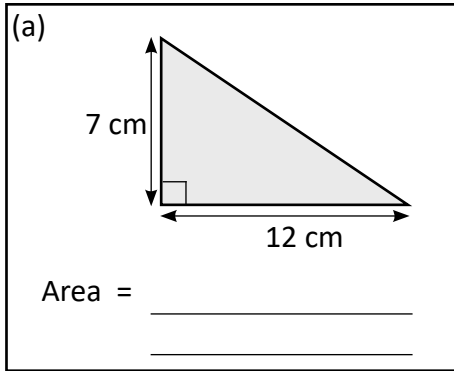
(b) 
Perimeter = _____

(c) 
Perimeter = _____

(d) 
Perimeter = _____



(3) Find the area of each of these triangles.



(4) This shape is made up of right angled triangles.

By finding the area of each triangle, find the total area of the complete shape.

Triangle A
Area = _____

Triangle B
Area = _____

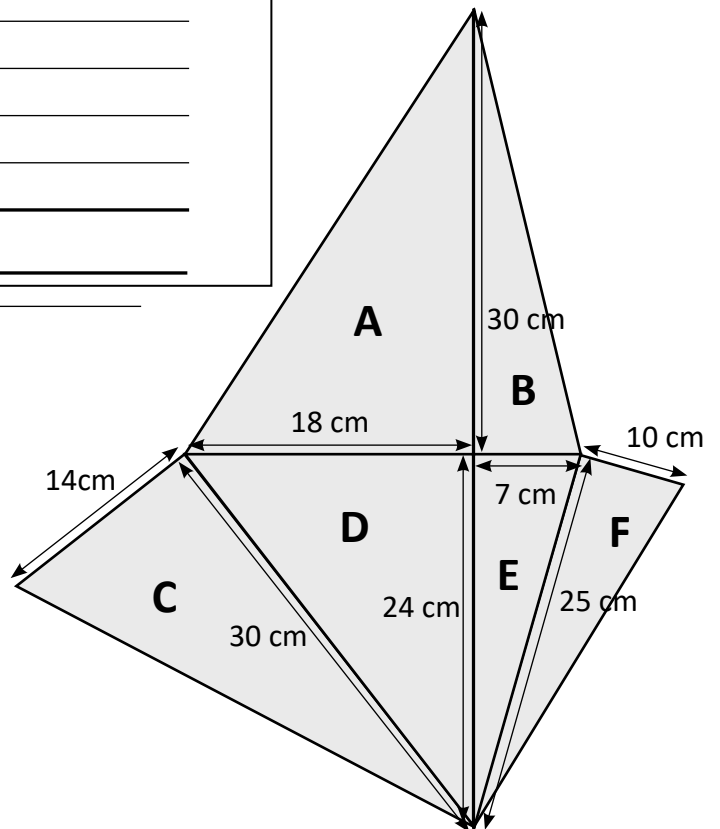
Triangle C
Area = _____

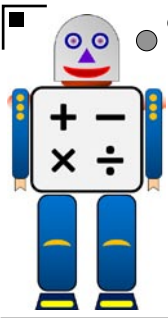
Triangle D
Area = _____

Triangle E
Area = _____

Triangle F
Area = _____

Total Area





Maths Homework
this week is about:

Volume of Cubes and Cuboids

Name: _____

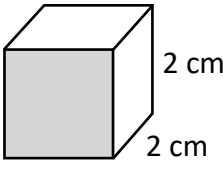
Date: _____

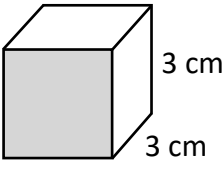
Teacher: _____

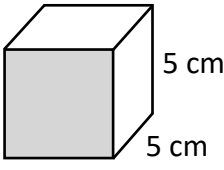
Year
6

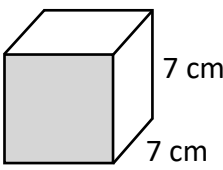
(1) Find the volume of each of these cubes.

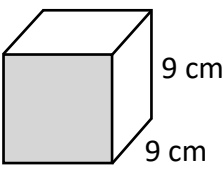
The diagrams on this sheet
are not drawn to scale.

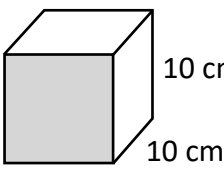
(a) 
2 cm
2 cm
2 cm
Volume = _____

(b) 
3 cm
3 cm
3 cm
Volume = _____

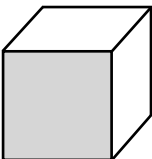
(c) 
5 cm
5 cm
5 cm
Volume = _____

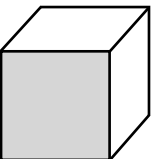
(d) 
7 cm
7 cm
7 cm
Volume = _____

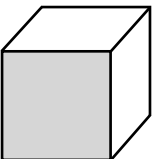
(e) 
9 cm
9 cm
9 cm
Volume = _____

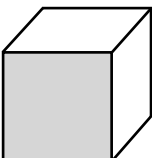
(f) 
10 cm
10 cm
10 cm
Volume = _____

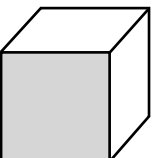
(2) These cubes each have side lengths which are whole numbers. You are given the volume for each one. Find the side length of each.

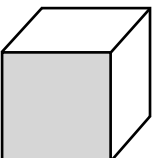
(a) 
Volume
64 cm³
Each side length

(b) 
Volume
1 cm³
Each side length

(c) 
Volume
216 cm³
Each side length

(d) 
Volume
8 000 cm³
Each side length

(e) 
Volume
512 cm³
Each side length

(f) 
Volume
27 000 cm³
Each side length

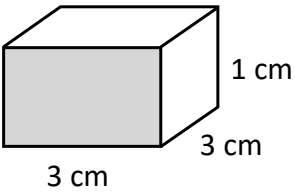
(3) Find the volume of a cube with sides of length 1.5 cm

Volume = _____



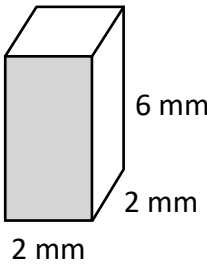
(4) Work out the volume of each of these cuboids.

(a)



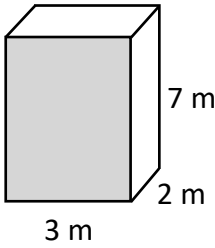
Volume = _____

(b)



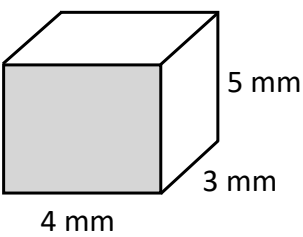
Volume = _____

(c)



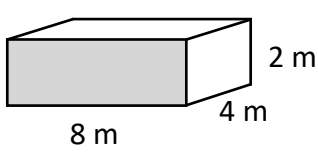
Volume = _____

(d)



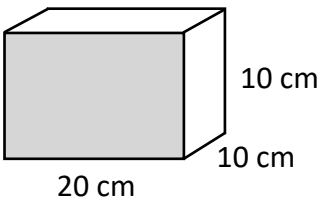
Volume = _____

(e)



Volume = _____

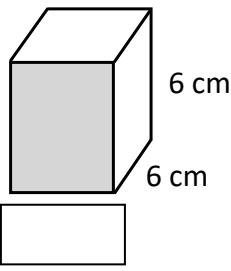
(f)



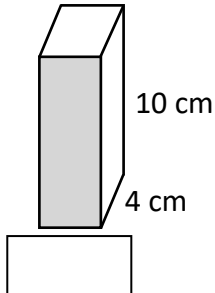
Volume = _____

(5) Find the length of the missing side in each of these cuboids.

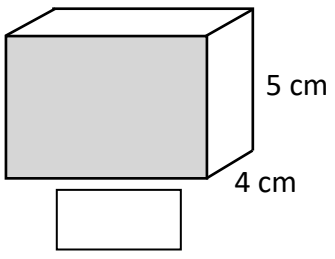
(a) **Volume = 180 cm^3**



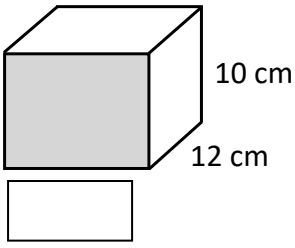
(b) **Volume = 80 cm^3**



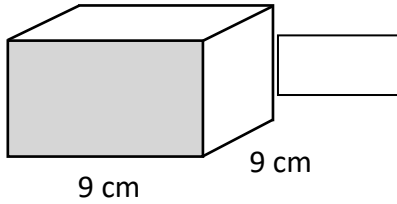
(c) **Volume = 140 cm^3**



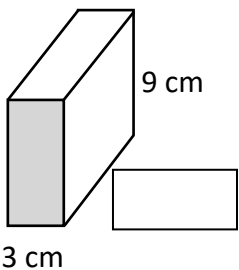
(d) **Volume = 1440 cm^3**

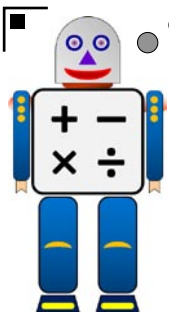


(e) **Volume = 486 cm^3**



(f) **Volume = 297 cm^3**



Maths Homework
this week is about:

Drawing 2D Shapes

Name: _____

Date: _____

Teacher: _____

Year

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- (1) (a) Draw an equilateral triangle with sides of length 5 cm.

You will need a pencil, ruler
and protractor.

- (b) Label the angles and side lengths
on your drawing.



- (2) (a) Draw a rectangle which has
a base of 7 cm
and a height of 4 cm.

- (b) Label the angles and sides
on your drawing.



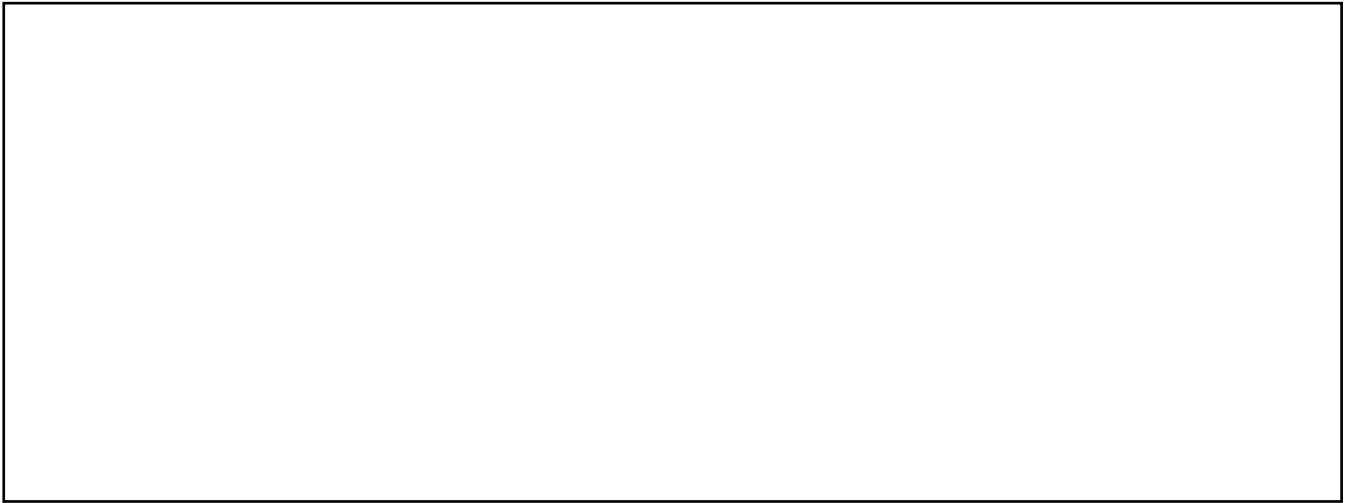
- (3) (a) Draw an isosceles triangle
with a base of length 3.5 cm and
two equal angles at the base of 70° .

- (b) Label the base length and all of the angles.

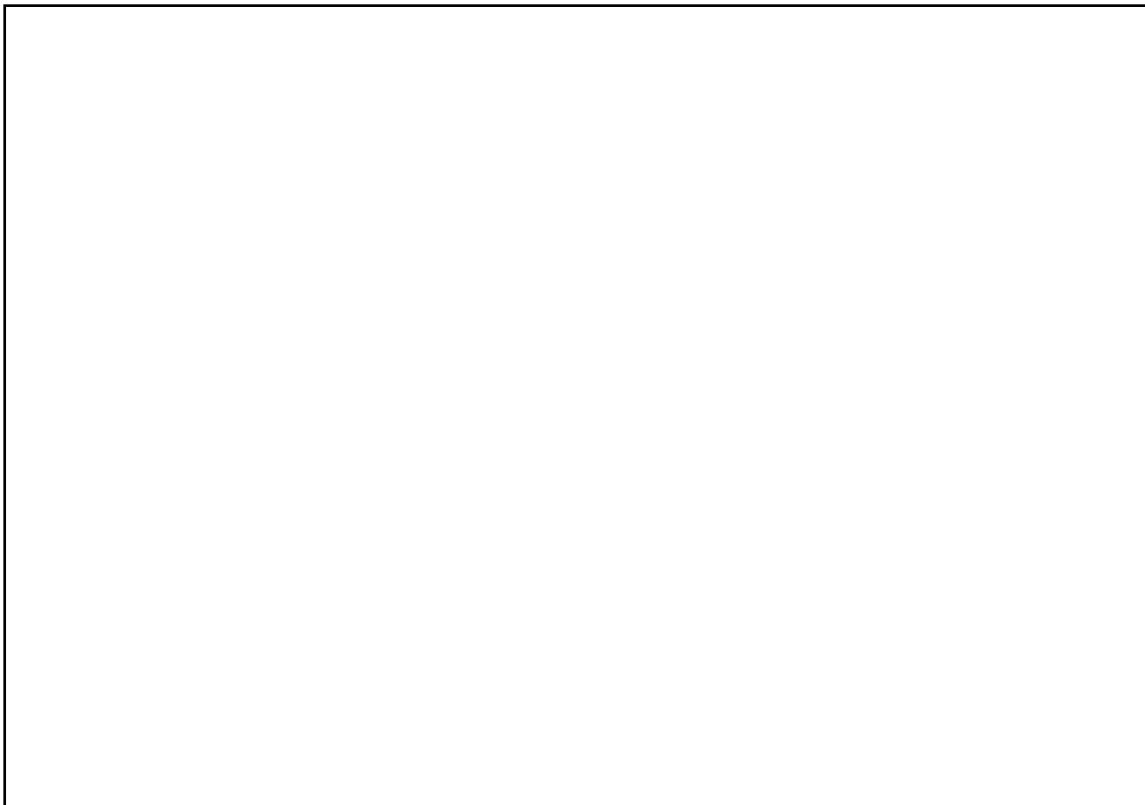
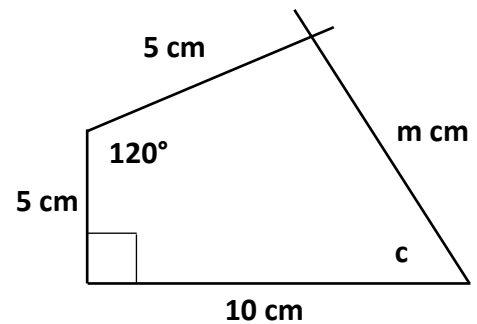
- (c) Measure and label the two equal sides.

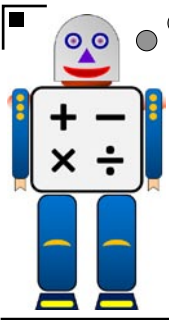


- (4) (a) Draw an isosceles triangle with a base of length 12 cm and two equal angles at the base of 35° .
- (b) Label the base length and all of the angles.
- (c) Measure and label the two equal sides.



- (5) (a) Use your ruler and protractor to make an accurate drawing of the shape shown in this sketch.
- (b) Label the given angles and side lengths on your diagram.
- (c) Measure the length of side m .
- (d) Measure the size of angle c .





Maths Homework
this week is about:

3D Shapes and Nets

Name:

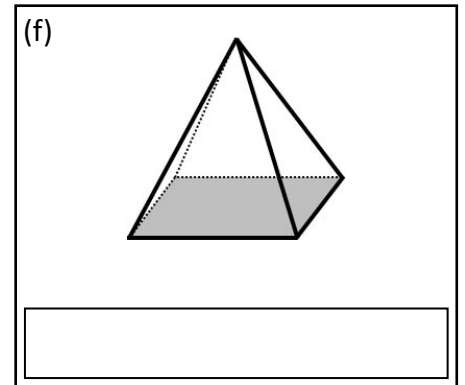
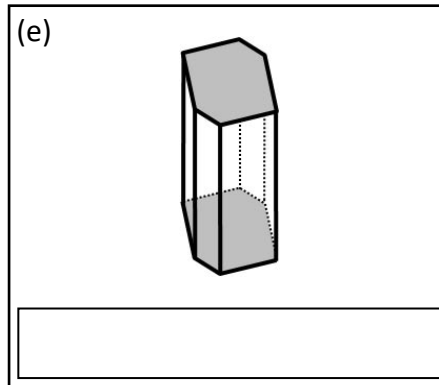
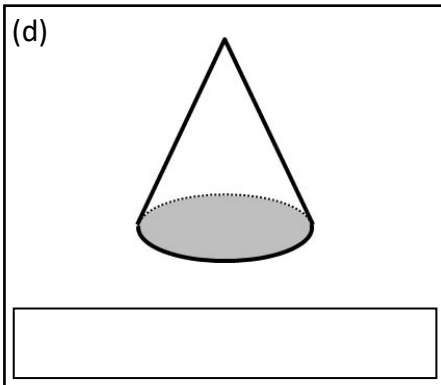
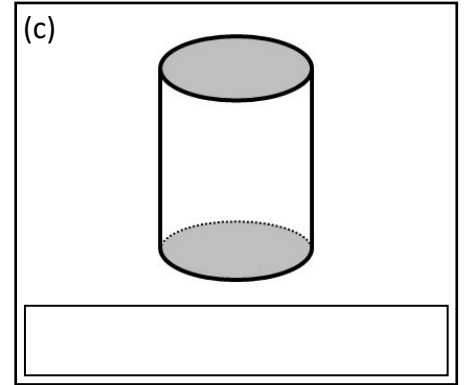
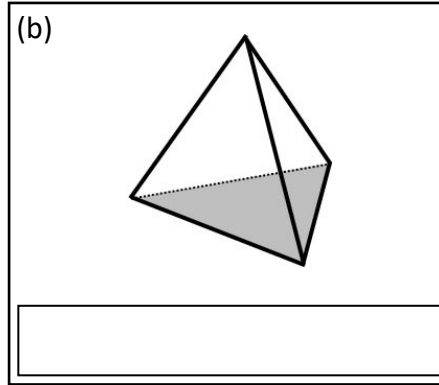
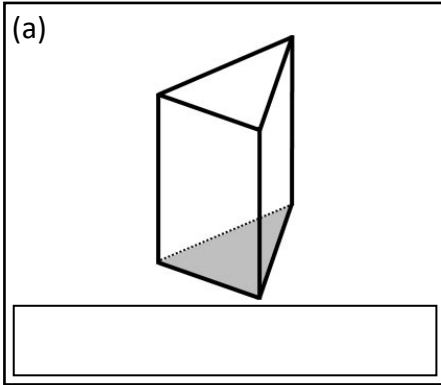
Date:

Teacher:

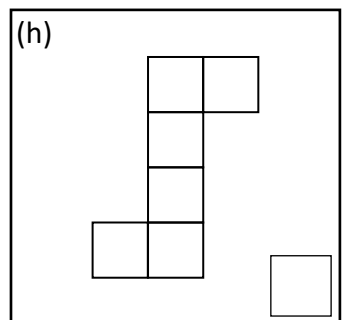
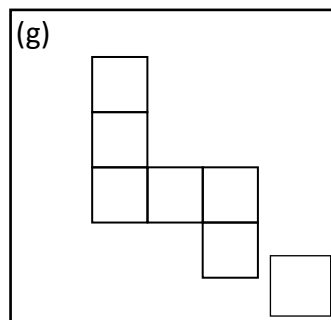
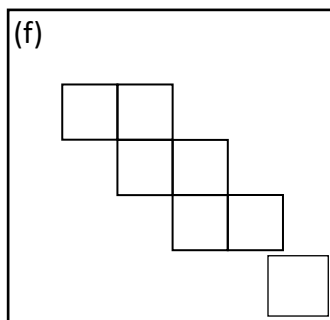
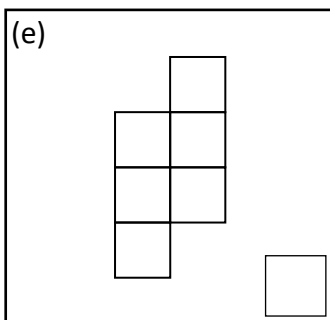
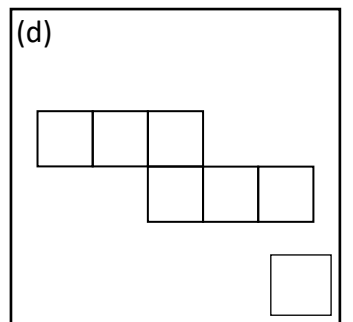
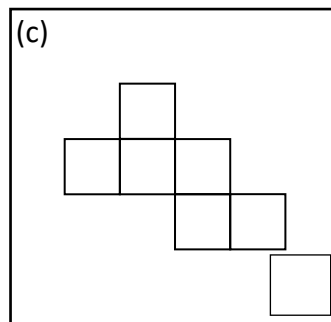
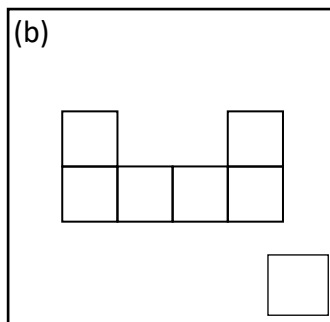
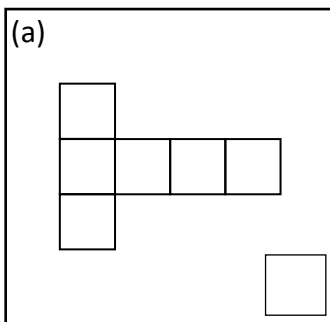
Year

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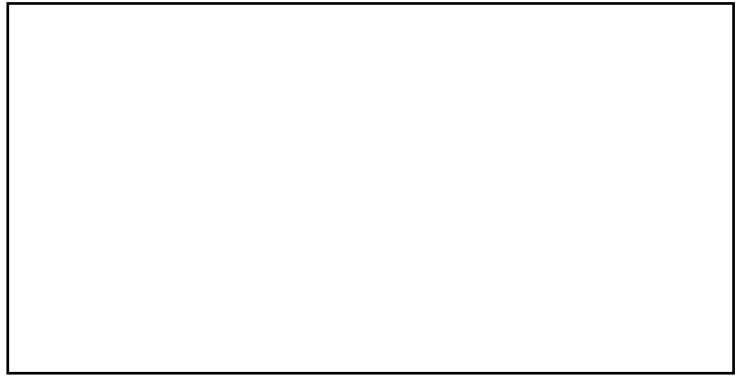
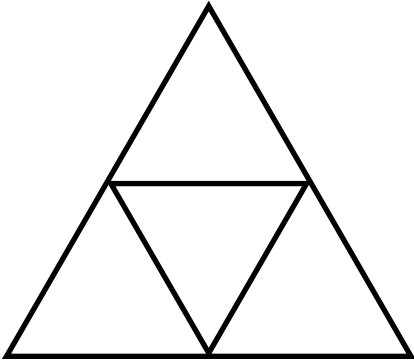
(1) Give the name of each of the following 3D shapes.



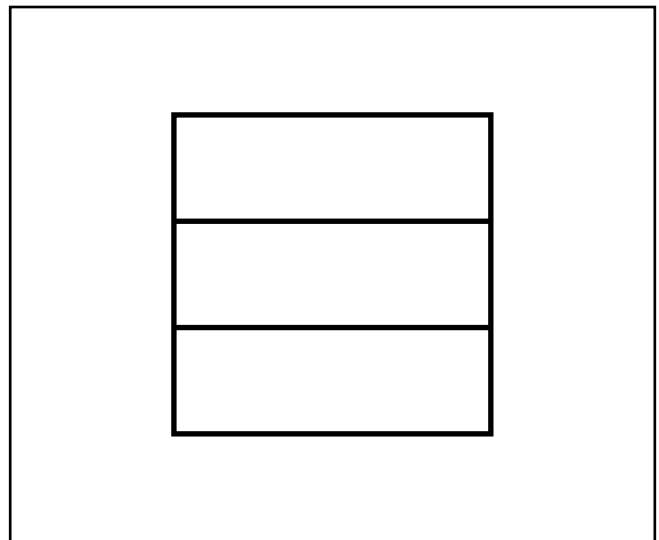
(2) Put a tick or cross next to each of these diagrams to indicate whether or not it is the net of a cube.



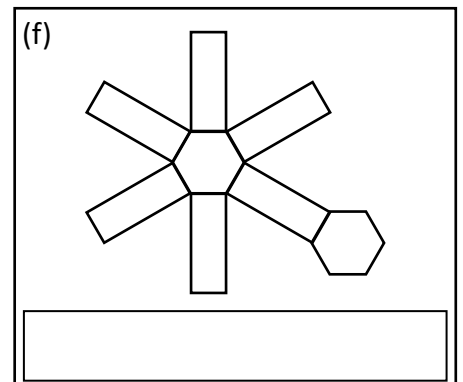
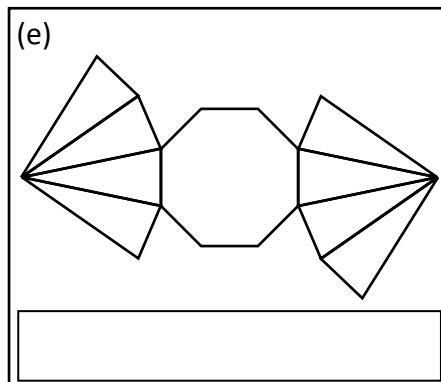
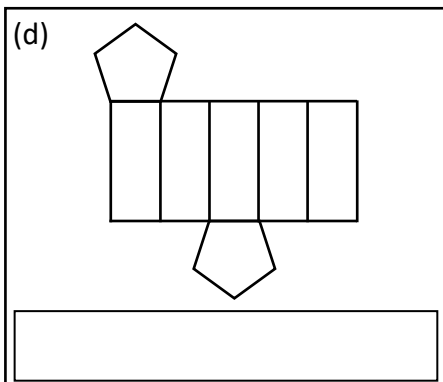
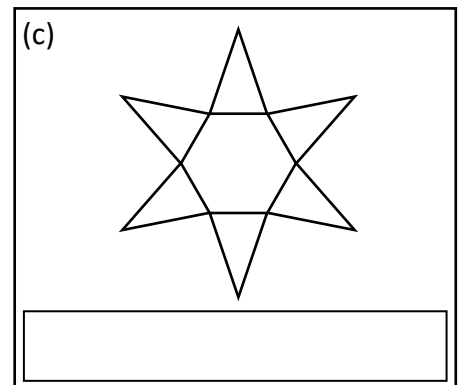
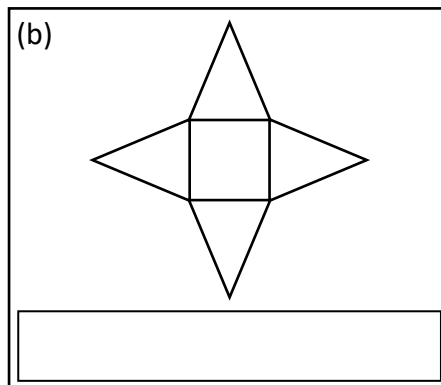
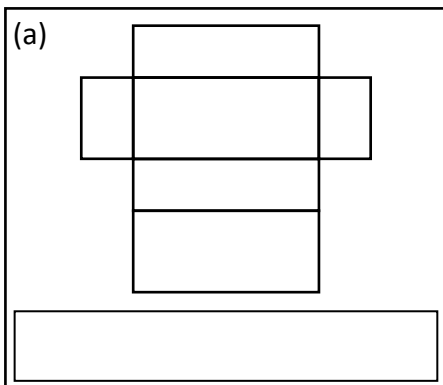
(3) Here is one possible net for a tetrahedron. Sketch the other possible net for a tetrahedron.

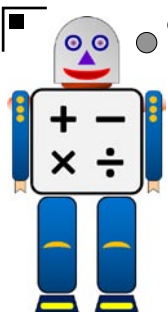


(4) Complete this net for a triangular prism.
(There are a few different ways you could do this).



(5) Name the solid which can be made from each of the following nets.





Maths Homework
this week is about:
**Angles in Triangles,
Quadrilaterals and
Polygons**

Name:

Date:

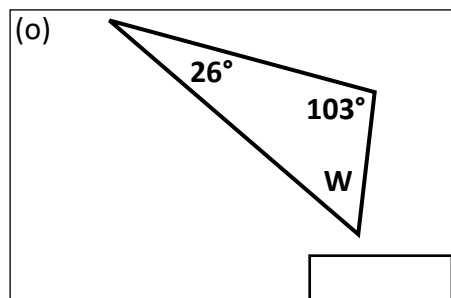
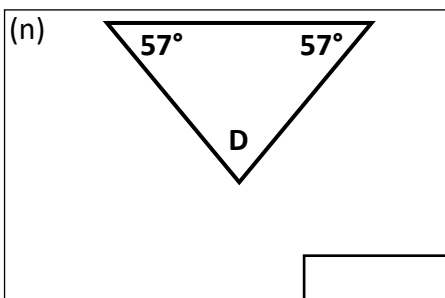
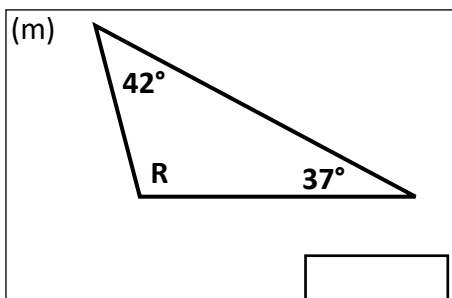
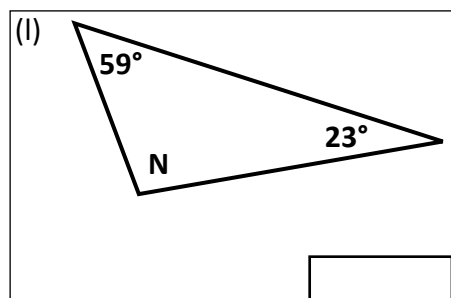
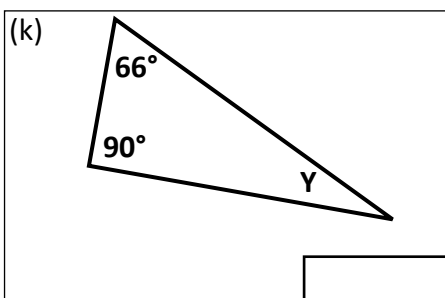
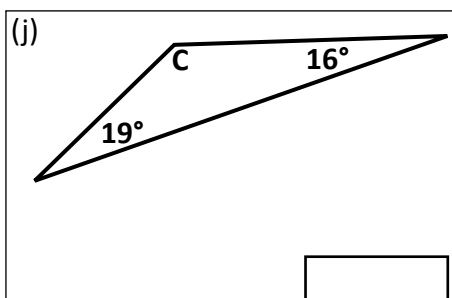
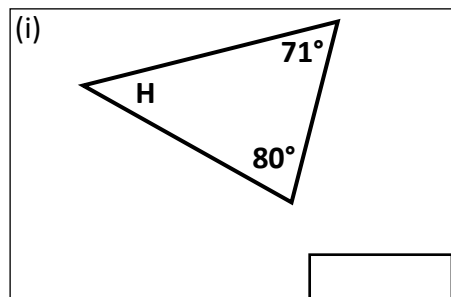
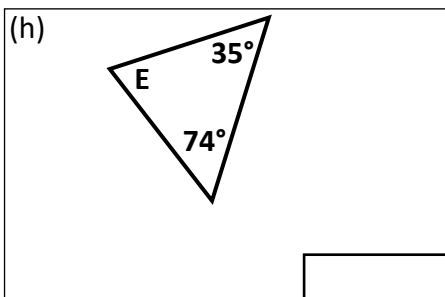
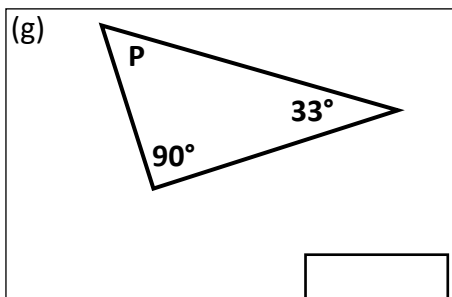
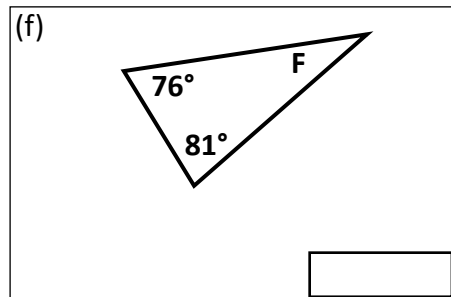
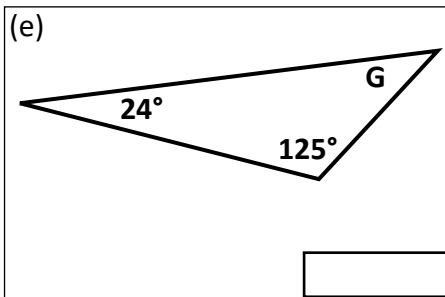
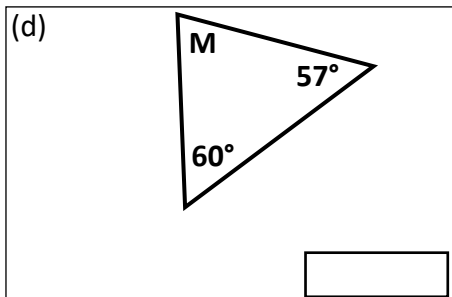
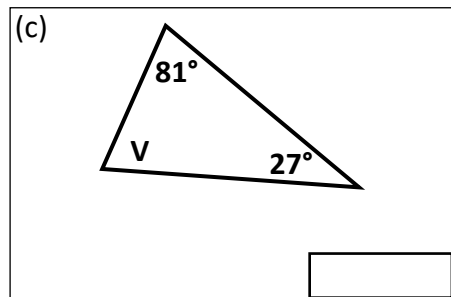
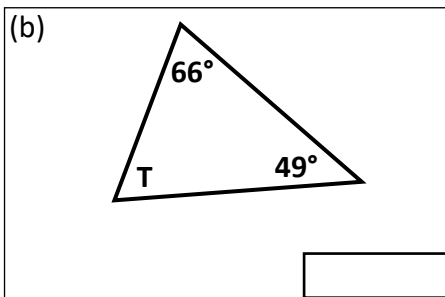
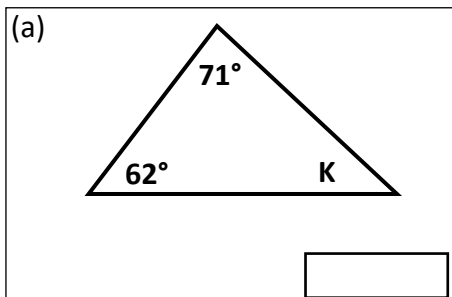
Teacher:

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Angles in a Triangle add up to 180°

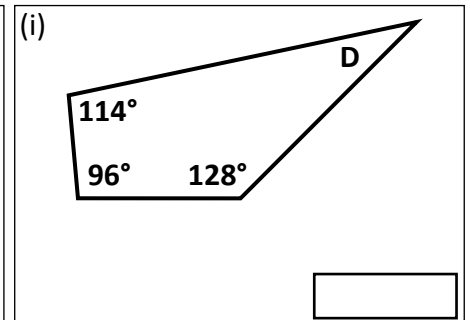
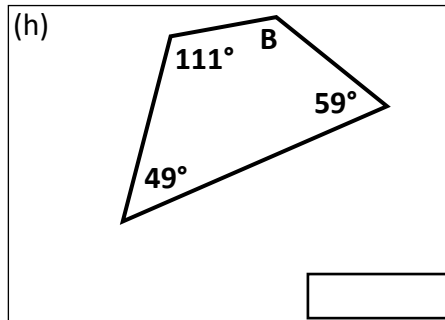
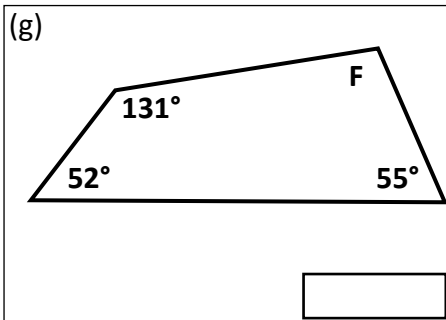
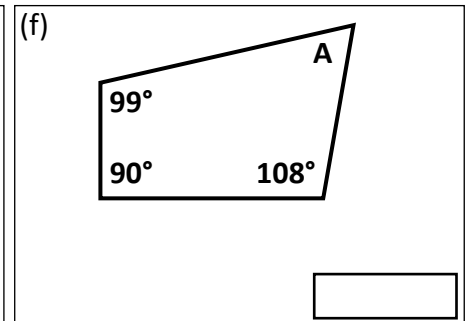
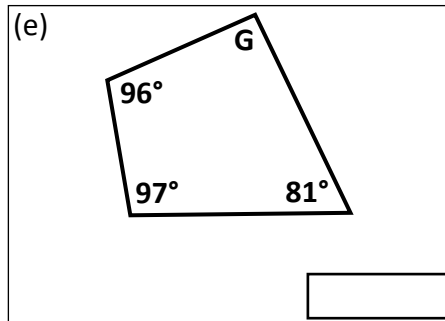
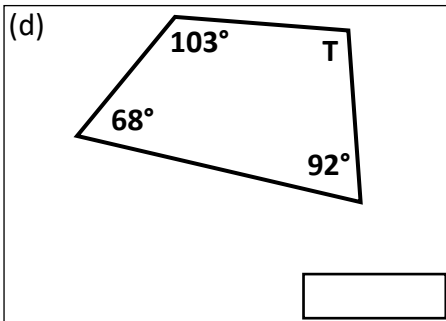
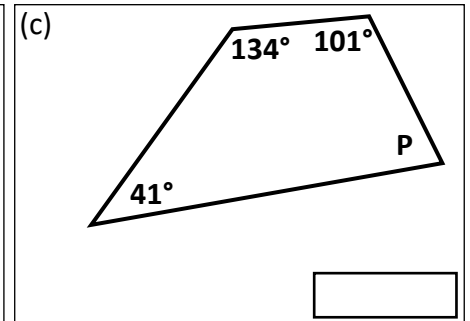
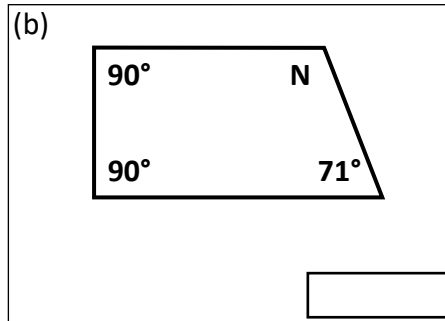
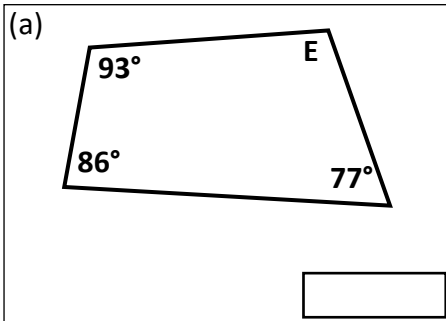
The diagrams on this sheet
are not drawn to scale.

(1) Find the missing angle in each of the following triangles.

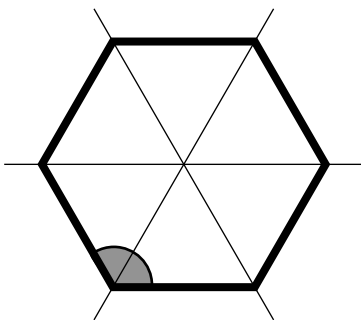


Angles in a Quadrilateral add up to 360°

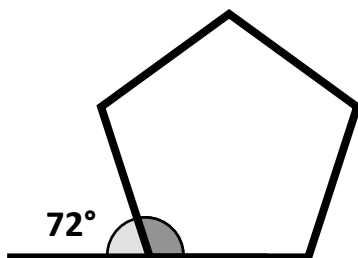
(2) Find the missing angle in each of the following quadrilaterals.



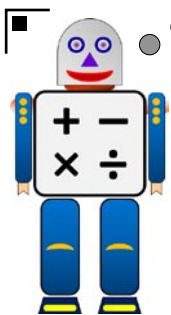
(3) This regular hexagon can be split into six equilateral triangles.
What is the size of each angle inside the regular hexagon?



(4) The exterior angle of a regular pentagon is 72° .
What is the size of each angle inside the regular pentagon?







Maths Homework
this week is about:

Circles

Name:

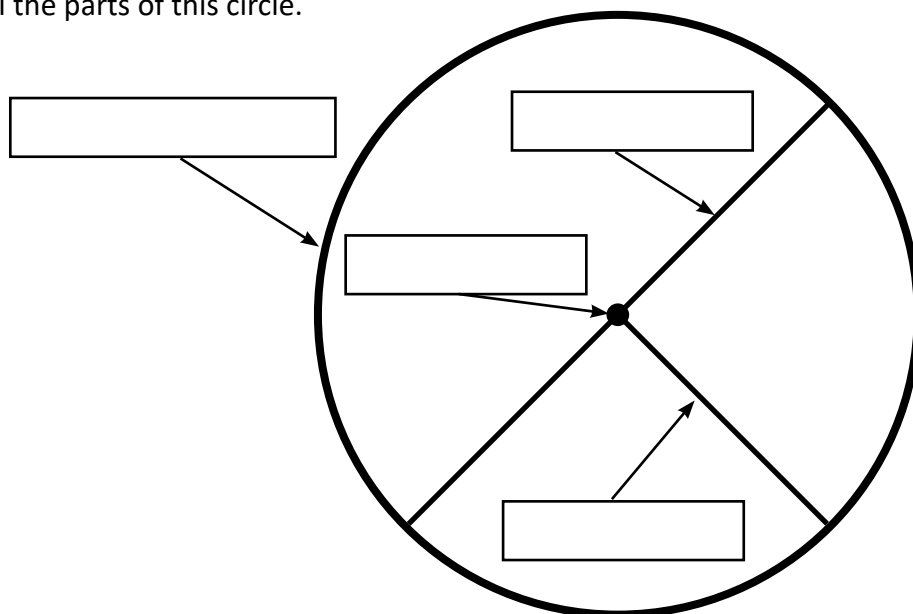
Date:

Teacher:

Year

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(1) Label the parts of this circle.



(2) Find the diameter for circles with each radius in the following table.

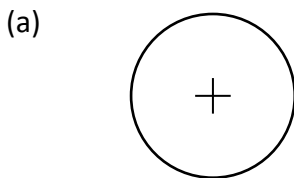
	Radius	Diameter
(a)	3 cm	<input type="text"/>
(b)	12 mm	<input type="text"/>
(c)	20 mm	<input type="text"/>
(d)	17 cm	<input type="text"/>
(e)	4.2 cm	<input type="text"/>
(f)	7.7 m	<input type="text"/>
(g)	29 mm	<input type="text"/>
(h)	2.25 cm	<input type="text"/>
(i)	0.9 m	<input type="text"/>
(j)	78.7 cm	<input type="text"/>
(k)	0.83 m	<input type="text"/>
(l)	139 cm	<input type="text"/>



(3) Find the radius for circles with each diameter in the following table.

	Diameter	Radius
(a)	4 m	<input type="text"/>
(b)	94 m	<input type="text"/>
(c)	132 cm	<input type="text"/>
(d)	174 mm	<input type="text"/>
(e)	218 cm	<input type="text"/>
(f)	848 cm	<input type="text"/>
(g)	19.6 m	<input type="text"/>
(h)	39.4 cm	<input type="text"/>
(i)	752 mm	<input type="text"/>
(j)	15.4 cm	<input type="text"/>
(k)	0.94 m	<input type="text"/>
(l)	19.2 cm	<input type="text"/>

(4) Measure the diameter and radius of each of the following circles. Give your answers in millimetres.



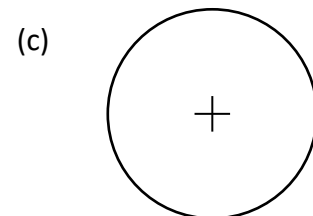
Diameter:

Radius:



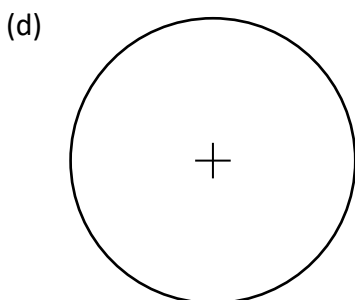
Diameter:

Radius:



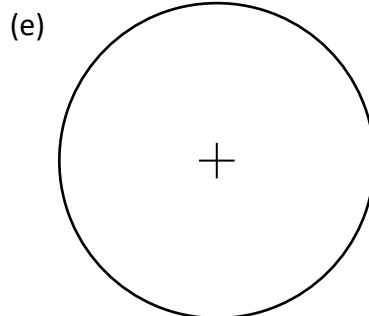
Diameter:

Radius:



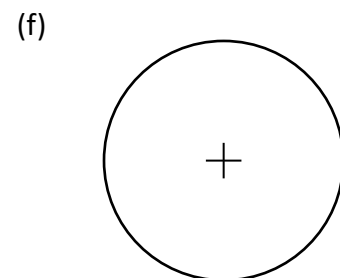
Diameter:

Radius:



Diameter:

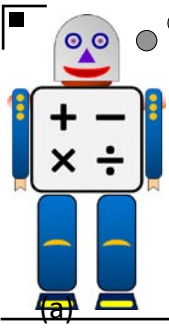
Radius:



Diameter:

Radius:





Maths Homework
this week is about:

Angles and Lines

Name:

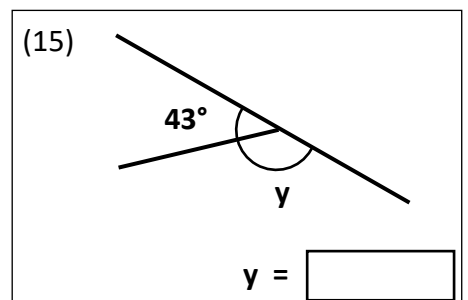
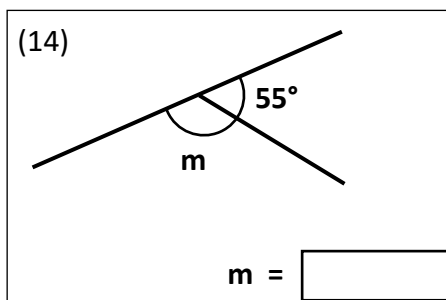
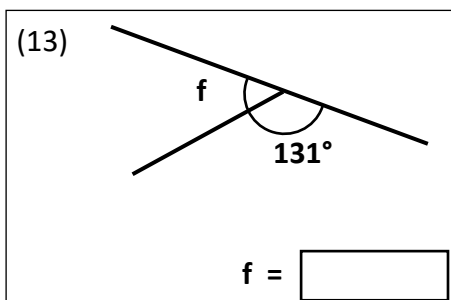
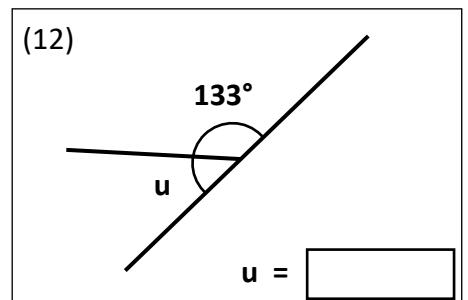
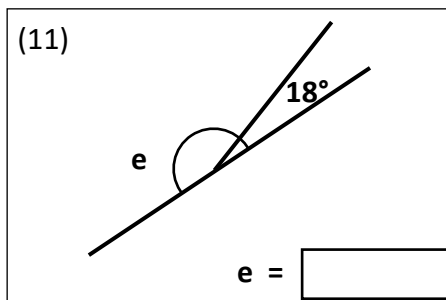
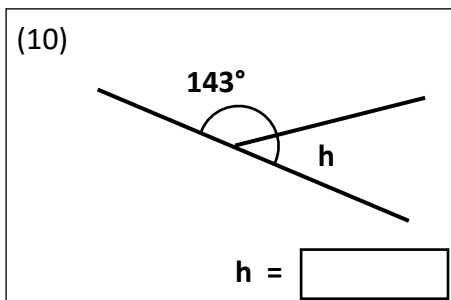
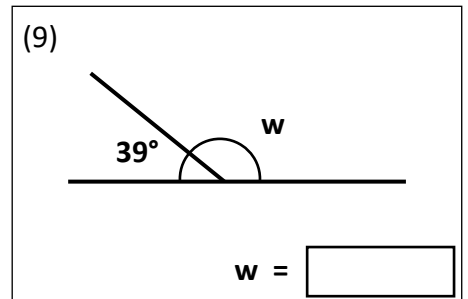
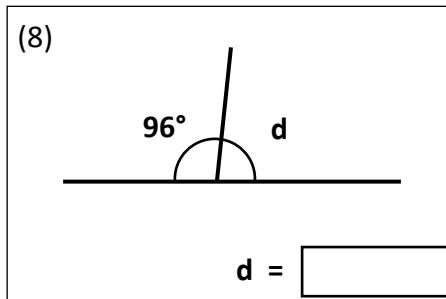
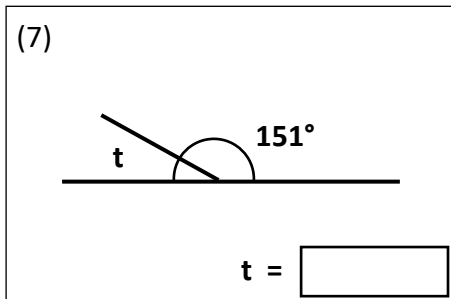
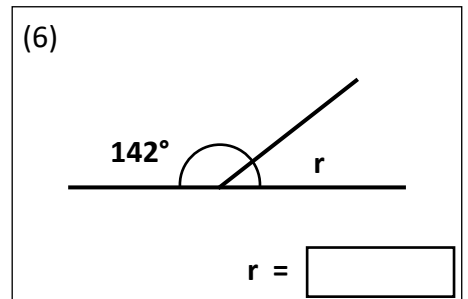
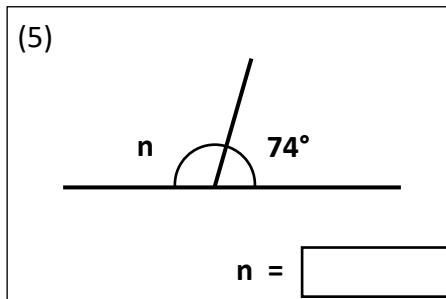
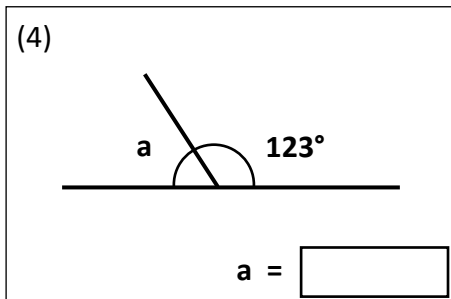
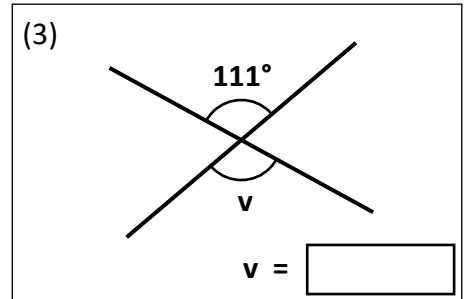
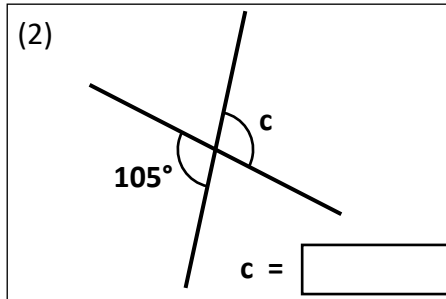
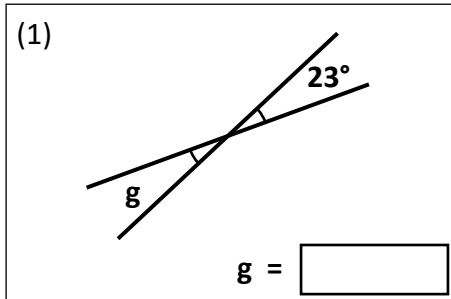
Date:

Teacher:

Year

6

For all the questions on this sheet, find the angles labelled with the letters.



(16)

$k = \boxed{}$

(17)

$d = \boxed{}$

(18)

$p = \boxed{}$

(19)

$c = \boxed{}$

(20)

$r = \boxed{}$

(21)

$v = \boxed{}$

(22)

$a = \boxed{}$

(23)

$y = \boxed{}$

(24)

$e = \boxed{}$

(25)

$p = \boxed{}$

(26)

$u = \boxed{}$

(27)

$w = \boxed{}$

(28)

$n = \boxed{}$

(29)

$r = \boxed{}$

(30)

$h = \boxed{}$

(31)

$f = \boxed{}$

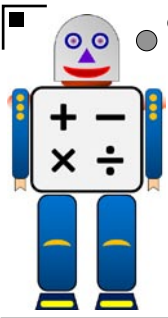
(32)

$b = \boxed{}$

(33)

$g = \boxed{}$





Maths Homework
this week is about:

Co-ordinates

Name: _____

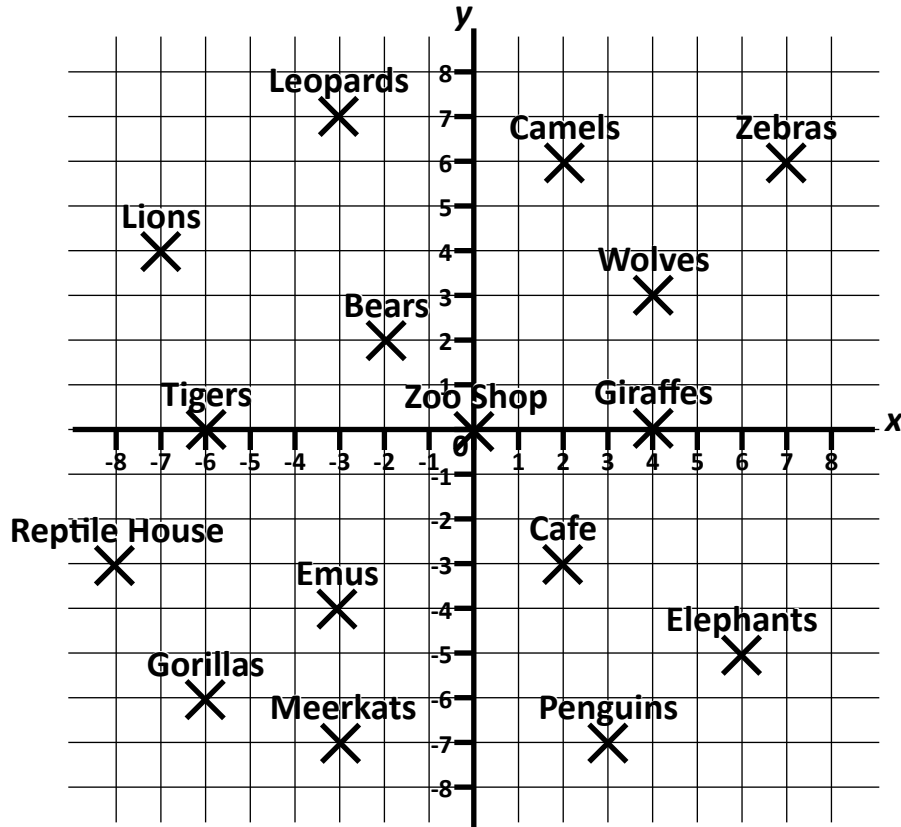
Date: _____

Teacher: _____

Year

6

(1) Give the co-ordinates of each place on this zoo plan.



	Location	Co-ordinates
(a)	Zoo Shop	
(b)	Elephants	
(c)	Lions	
(d)	Cafe	
(e)	Zebras	
(f)	Gorillas	
(g)	Camels	
(h)	Penguins	

	Location	Co-ordinates
(i)	Tigers	
(j)	Leopards	
(k)	Wolves	
(l)	Emus	
(m)	Giraffes	
(n)	Bears	
(o)	Reptile House	
(p)	Meerkats	



- (2) Plot each of the following co-ordinates, in order, on the set of axes below, and join them in the order you plotted them to make a shape.

(-3, 3)

(1, 4)

(1, 2)

(4, 2)

(1, -1)

(3, -2)

(-3, -4)

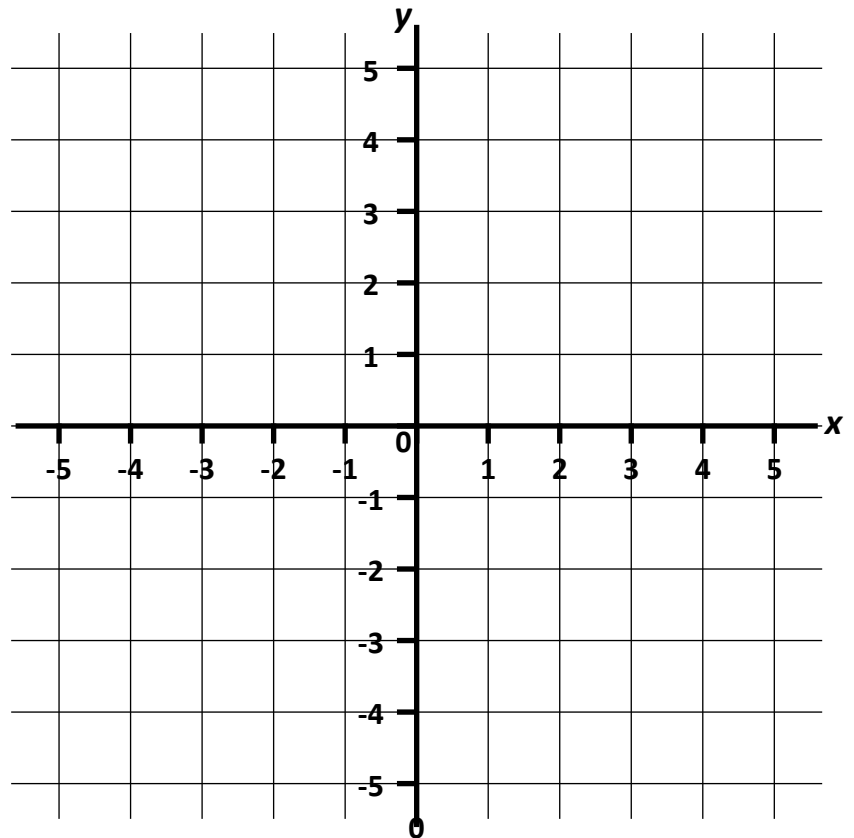
(-2, -2)

(-4, 1)

(-5, 3)

then back to

(-3, 3)



- (3) Plot each of the following co-ordinates, in order, on the set of axes below, and join them in the order you plotted them to make a shape.

(-4, 4)

(-2, 4)

(-1, 2)

(0, 4)

(2, 4)

(1, 1)

(2, -2)

(0, -2)

(-1, 0)

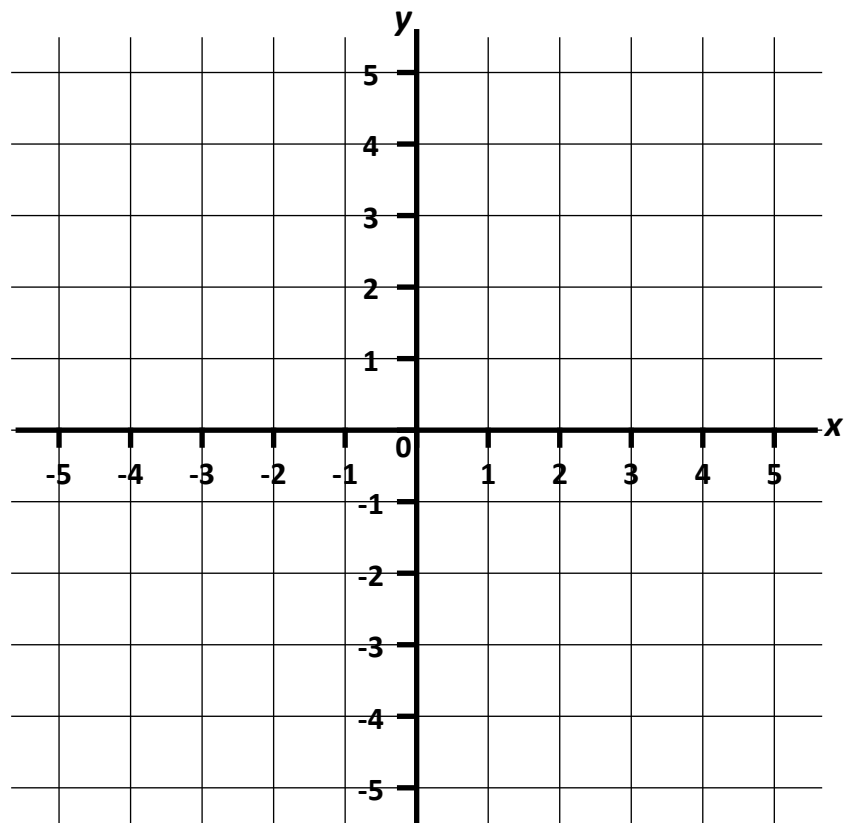
(-2, -2)

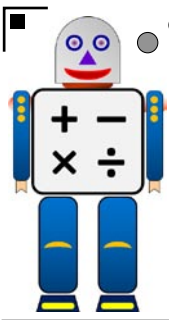
(-4, -2)

(3, 1)

then back to

(-4, 4)





Maths Homework
this week is about:

Translating and Reflecting Shapes

Name: _____

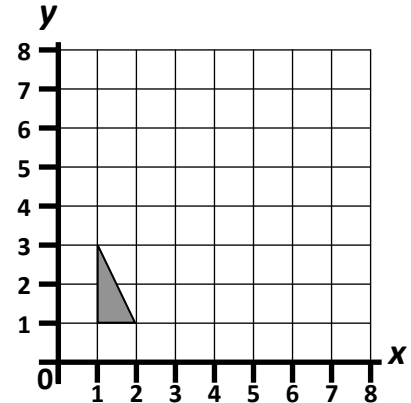
Date: _____

Teacher: _____

Year
6

(1) (a) Translate this shape

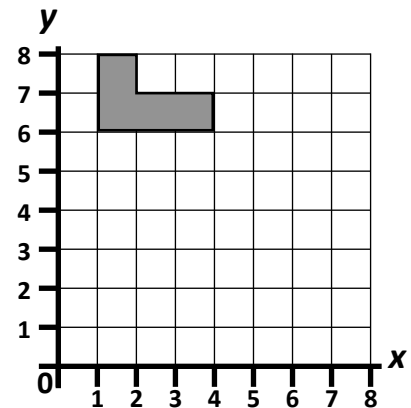
**6 RIGHT
5 UP**



(b) Give the translation which would get from
your answer back to the starting shape.

(2) (a) Translate this shape

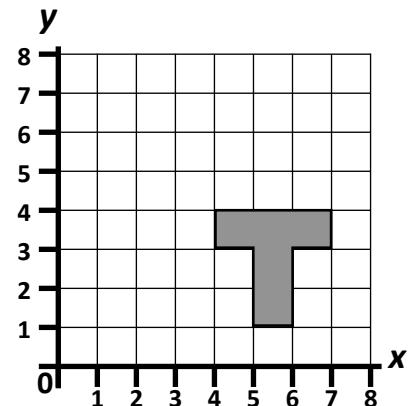
**4 RIGHT
2 DOWN**



(b) Give the translation which would get from
your answer back to the starting shape.

(3) (a) Translate this shape

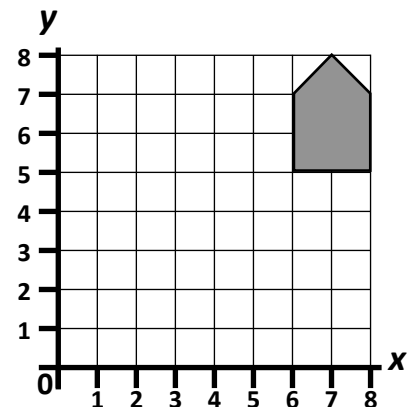
**3 LEFT
4 UP**



(b) Give the translation which would get from
your answer back to the starting shape.

(4) (a) Translate this shape

**5 LEFT
5 DOWN**

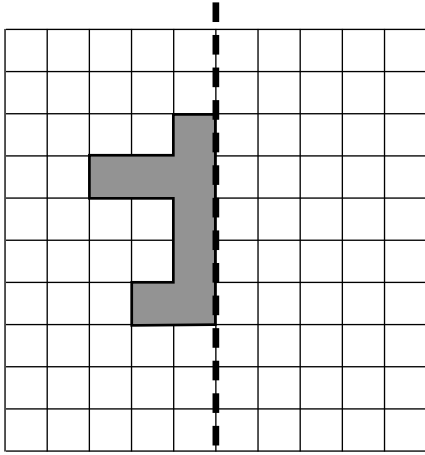


(b) Give the translation which would get from
your answer back to the starting shape.

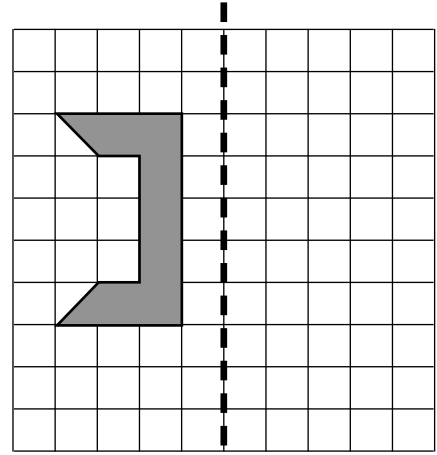


(5) Reflect each shape in the dotted mirror line given

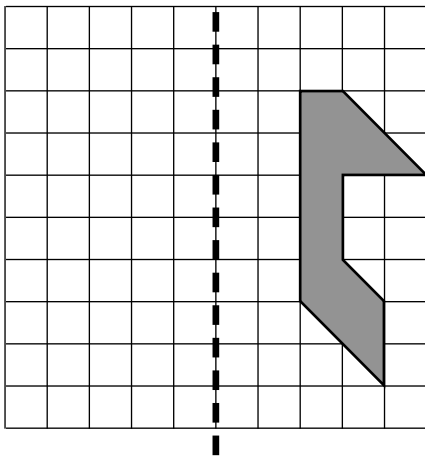
(a)



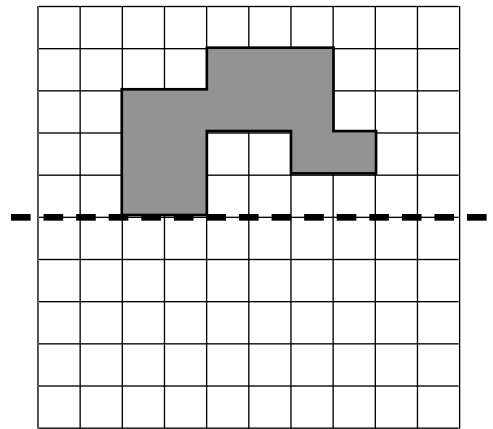
(b)



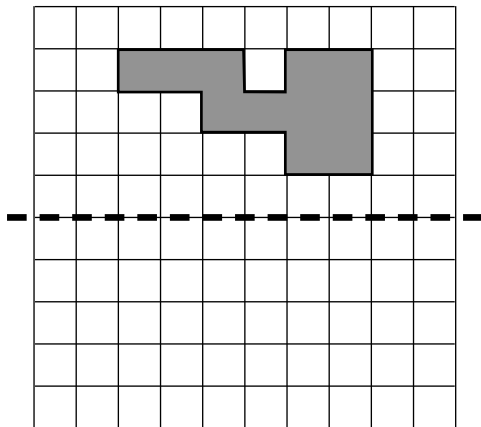
(c)



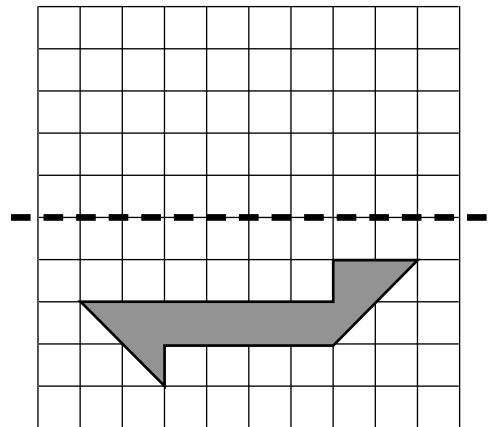
(d)



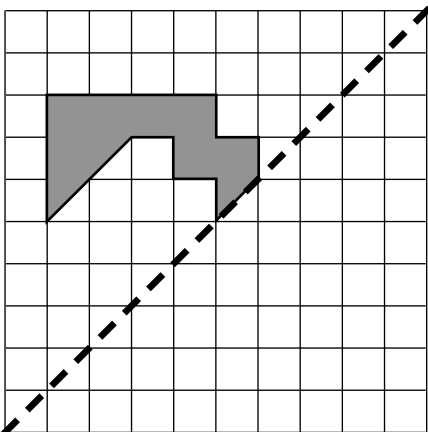
(e)



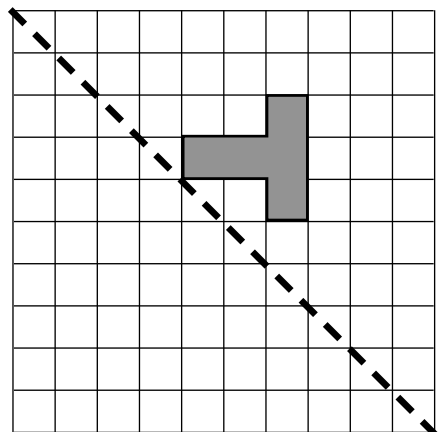
(f)

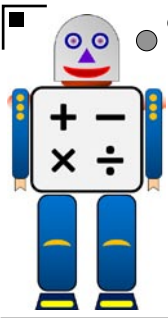


(g)



(h)





Maths Homework
this week is about:

**Pie Charts
and
Line Graphs**

Name:

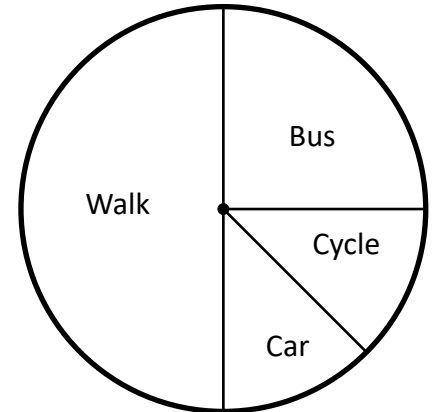
Date:

Teacher:

Year
6

(1) This pie chart shows the method used by 40 pupils to get to school.

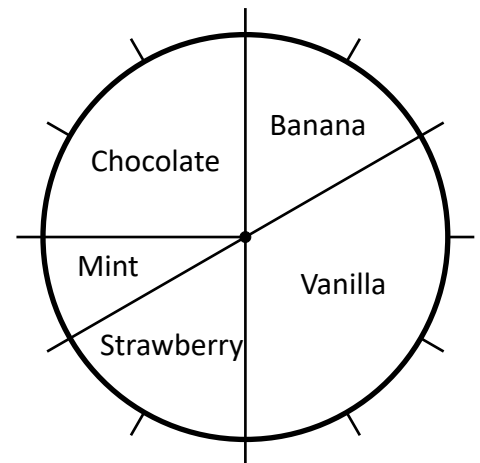
- (a) How many pupils walked?
- (b) How many pupils came by bus?
- (c) How many pupils cycled?
- (d) How many pupils came by car?



(2) This pie chart shows the favourite ice cream flavour of 60 pupils.

Use the information in the pie chart to fill in this table to show the number of people who chose each flavour.

Flavour	Number of People
Chocolate	
Mint	
Strawberry	
Vanilla	
Banana	

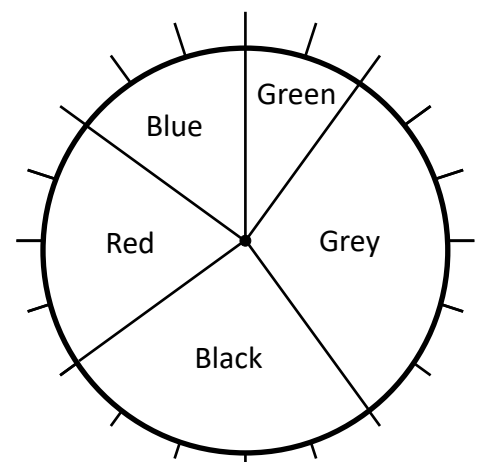


(3) Here is a pie chart to show the number of different colours of cars in a car park.

There were 100 cars altogether.

Use the information in the pie chart to fill in this table to show the number of cars of each colour.

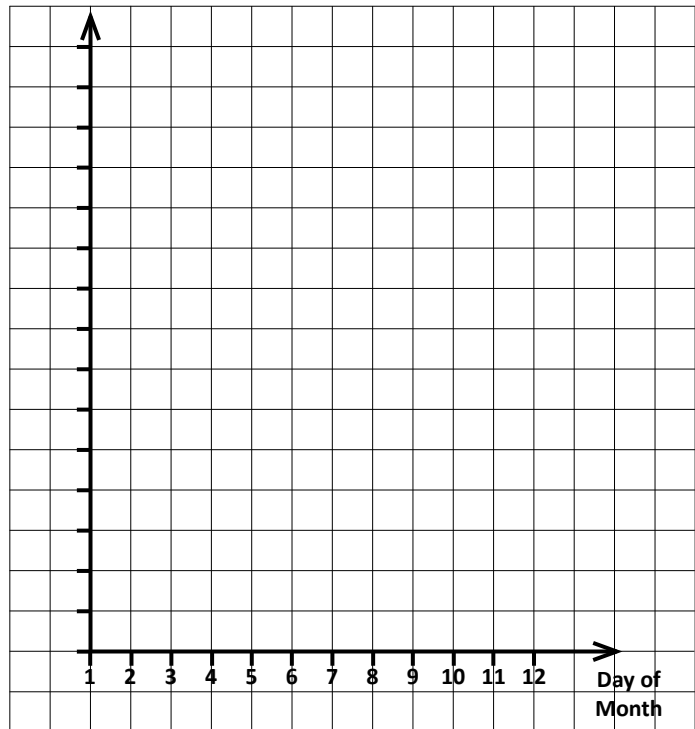
Colour	Number of Cars
Green	
Grey	
Black	
Red	
Blue	



- (4) The table below shows the number of people who visited a museum on the first 12 days of one month.

Draw a line graph to show this data.

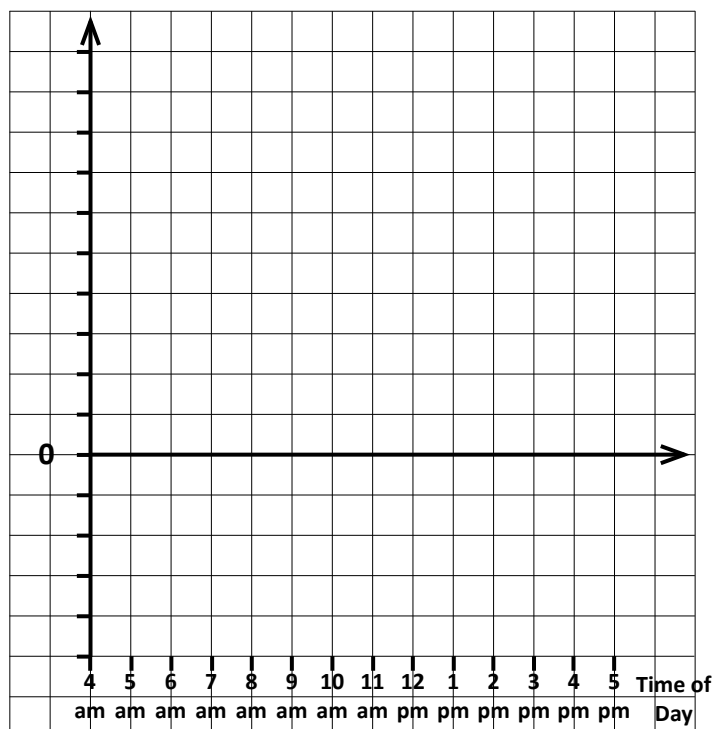
Day of Month	Number of People
1	140
2	110
3	80
4	40
5	60
6	70
7	50
8	90
9	120
10	110
11	130
12	100

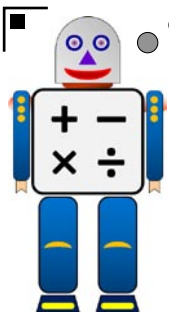


- (5) The table below shows the temperature at various times during one winter day.

Draw a line graph to show this data.

Time of Day	Temperature ($^{\circ}\text{C}$)
4 am	-5
5 am	-5
6 am	-4
7 am	-3
8 am	-3
9 am	-1
10 am	0
11 am	1
12 pm	3
1 pm	4
2 pm	6
3 pm	6
4 pm	7
5 pm	9





Maths Homework
this week is about:

Mean Averages

Name:

Date:

Teacher:

Year

6

(1) The time, in minutes, a pupil spent on homework during five nights were:

20 minutes, 22 minutes, 18 minutes, 36 minutes, 24 minutes

Find the mean number of minutes spent on homework for the five nights.

Mean time:

(2) A runner ran four 400 m races one week. The times in seconds for each race were:

58 seconds, 62 seconds, 65 seconds, 59 seconds

Find the mean time in seconds for the four races.

Mean time:

(3) A pupil scored the following scores out of 20 on their last six maths tests:

18, 14, 17, 19, 13, 15

Find the mean score for these six tests.

Mean score:

(4) The height and weight of five friends are given below:

Height:	146 cm	152 cm	139 kg	144 kg	154 kg
Weight:	32 kg	39 kg	41 kg	37 kg	46 kg

Find the mean height and mean weight for this group of friends.

Mean Height:

Mean Weight:



- (5) The temperatures at midday for each day of one week were as follows:

14°C, 17°C, 16°C, 19°C, 13°C, 12°C, 14°C

Find the mean temperature for the week.

Mean temperature:

- (6) Six friends get the following amounts of pocket money per week:

£4.50, £5.50, £6.00, £4.00, £2.50, £7.50

Find the mean amount of pocket money.

Mean amount:

- (7) The heights of four trees in a garden are:

1.5 m, 1.25 m, 1.36 m, 1.13 m

Find the mean height of these four trees.

Mean height:

- (8) The number of sweets in eight boxes of sweets are:

36, 33, 38, 36, 39, 31, 32, 35

Find the mean number of sweets per box.

Mean number:

- (9) The mean of three numbers is **15**. Two of the numbers are **12** and **19**.

What is the third number?

Third number:

- (10) Three of the four test scores (out of 10) for a pupil are **7**, **9** and **6**. The mean score for all four tests is **8**.

What score did the pupil get in the fourth test?

Fourth score:



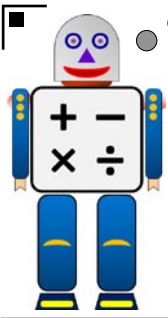
Maths Topics Homework Sheets

for Year 6

Version 1.0



Answers



Maths Homework
this week is about:

Numbers and Digit Values

Answers

Date:

Teacher:

Year

6

(1) Fill in the missing boxes in this table.

	Number in Digits	Number in Words
(a)	948	Nine hundred and forty eight
(b)	3 126	Three thousand, one hundred and twenty six
(c)	5 092	Four thousand and ninety two
(d)	16 487	Sixteen thousand, four hundred and eighty seven
(e)	10 375	Ten thousand, three hundred and seventy five
(f)	126 429	One hundred and twenty six thousand, four hundred and twenty nine
(g)	792 043	Seven hundred and ninety two thousand and forty three
(h)	6 824 356	Six million, eight hundred and twenty four thousand, three hundred and fifty six
(i)	4 106 038	Four million, one hundred and six thousand and thirty eight
(j)	9 210 040	Nine million, two hundred and ten thousand and forty

(2) (a) Put these numbers in order, starting with the lowest.

7 016	28 956	1 486	27 272	3 914
1 486	3 914	7 016	27 272	28 956

(b) Put these numbers in order, starting with the highest.

11 026	28 534	30 106	9 487	12 009
30 106	28 534	12 009	11 026	9 487

(3) Circle the largest number in each box.

(a)	(b)	(c)																		
<table border="1"><tbody><tr><td>89 463</td><td>80 009</td></tr><tr><td>24 631</td><td>72 106</td></tr><tr><td>9 746</td><td>16 438</td></tr></tbody></table>	89 463	80 009	24 631	72 106	9 746	16 438	<table border="1"><tbody><tr><td>260 497</td><td>263 999</td></tr><tr><td>264 387</td><td>39 465</td></tr><tr><td>128 437</td><td>90 909</td></tr></tbody></table>	260 497	263 999	264 387	39 465	128 437	90 909	<table border="1"><tbody><tr><td>98 463</td><td>806 438</td></tr><tr><td>809 899</td><td>384 627</td></tr><tr><td>725 476</td><td>819 364</td></tr></tbody></table>	98 463	806 438	809 899	384 627	725 476	819 364
89 463	80 009																			
24 631	72 106																			
9 746	16 438																			
260 497	263 999																			
264 387	39 465																			
128 437	90 909																			
98 463	806 438																			
809 899	384 627																			
725 476	819 364																			



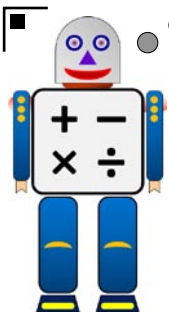
(4) Give, in words, the value of the underlined digit in each number below.

	Number	Value of Underlined Digit
eg:	638 <u>4</u> 97	Four hundred
(a)	2 <u>7</u> 38	Thirty
(b)	56 <u>9</u> 21	Nine hundred
(c)	308 <u>1</u> 78	Seventy
(d)	39 <u>5</u> 206	Five thousand
(e)	902 <u>1</u> 46	One hundred
(f)	<u>2</u> 62 049	Sixty thousand
(g)	<u>5</u> 28 463	Five hundred thousand
(h)	1 <u>7</u> 40 395	Seven hundred thousand
(i)	<u>6</u> 284 127	Six million
(j)	<u>9</u> 035 268	Nine million

(5) Put the correct symbol (<, > or =) into each box.

(a)	86 523	>	9 896
(b)	38 026	>	30 945
(c)	62 748	<	316 284
(d)	102 040	>	30 204
(e)	95 627	<	96 527
(f)	1 074 623	=	1 074 623
(g)	3 864 251	>	3 764 251
(h)	1 204 627	<	1 240 627
(i)	6 972 003	>	6 970 203
(j)	4 639 526	<	6 439 526





Maths Homework
this week is about:

Rounding Numbers

Answers

Date:

Teacher:

Year
6

- (1) The distances, in miles, on these signposts have been given too accurately. Round each distance to the nearest mile.

(a)	Adderley	56.34	Adderley	56
(b)	Fractionham	84.83	Fractionham	85
(c)	Squareton	124.54	Squareton	125
(d)	Graphdon	137.61	Graphdon	138
(e)	Dividingtry	209.48	Dividingtry	209

- (2) Circle the closest number to each number in the box.

(a)	38	37.5	38.12	37.49	37.99	38.04
(b)	4.6	4.7	4.69	4.61	4.55	4.05
(c)	127	127.05	126.85	127.15	127.5	126.9
(d)	19.3	19.25	19.35	19.29	19.39	19.4
(e)	0.7	0.07	0.77	0.06	0.8	0.72

- (3) Round each of these numbers to the nearest 100.

(a)	565	=	600	to the nearest 100
(b)	1 047	=	1 000	to the nearest 100
(c)	2 613	=	2 600	to the nearest 100
(d)	5 284	=	5 300	to the nearest 100
(e)	3 976	=	4 000	to the nearest 100



(4) Round 73 528

- | | | |
|-----|----------------------|---------------|
| (a) | to the nearest 10 | 73 530 |
| (b) | to the nearest 100 | 73 500 |
| (c) | to the nearest 1 000 | 74 000 |

(5) Round 68 459

- | | | |
|-----|----------------------|---------------|
| (a) | to the nearest 10 | 68 460 |
| (b) | to the nearest 100 | 68 500 |
| (c) | to the nearest 1 000 | 68 000 |

(6) Round each of these numbers to the nearest whole number.

	Number	Nearest whole number
(a)	6.05	6
(b)	8.66	9
(c)	3.49	3
(d)	5.84	6
(e)	9.38	9
(f)	9.72	10
(g)	12.48	12
(h)	18.61	19
(i)	26.83	27
(j)	125.39	125

(7) Round each of these numbers to one decimal place.

	Number	to one decimal place		Number	to one decimal place
(a)	18.73	18.7	(b)	148.65	148.7
(c)	13.68	13.7	(d)	293.38	293.4
(e)	27.93	27.9	(f)	643.24	643.2

(8) Sam said that there were 30 sweets in a bag to the nearest 10.

Give the smallest and largest number of sweets which could have been in the bag.

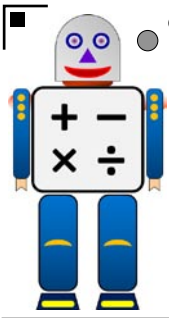
Smallest:

25

Largest:

34





Maths Homework
this week is about:

Negative Numbers and Number Patterns

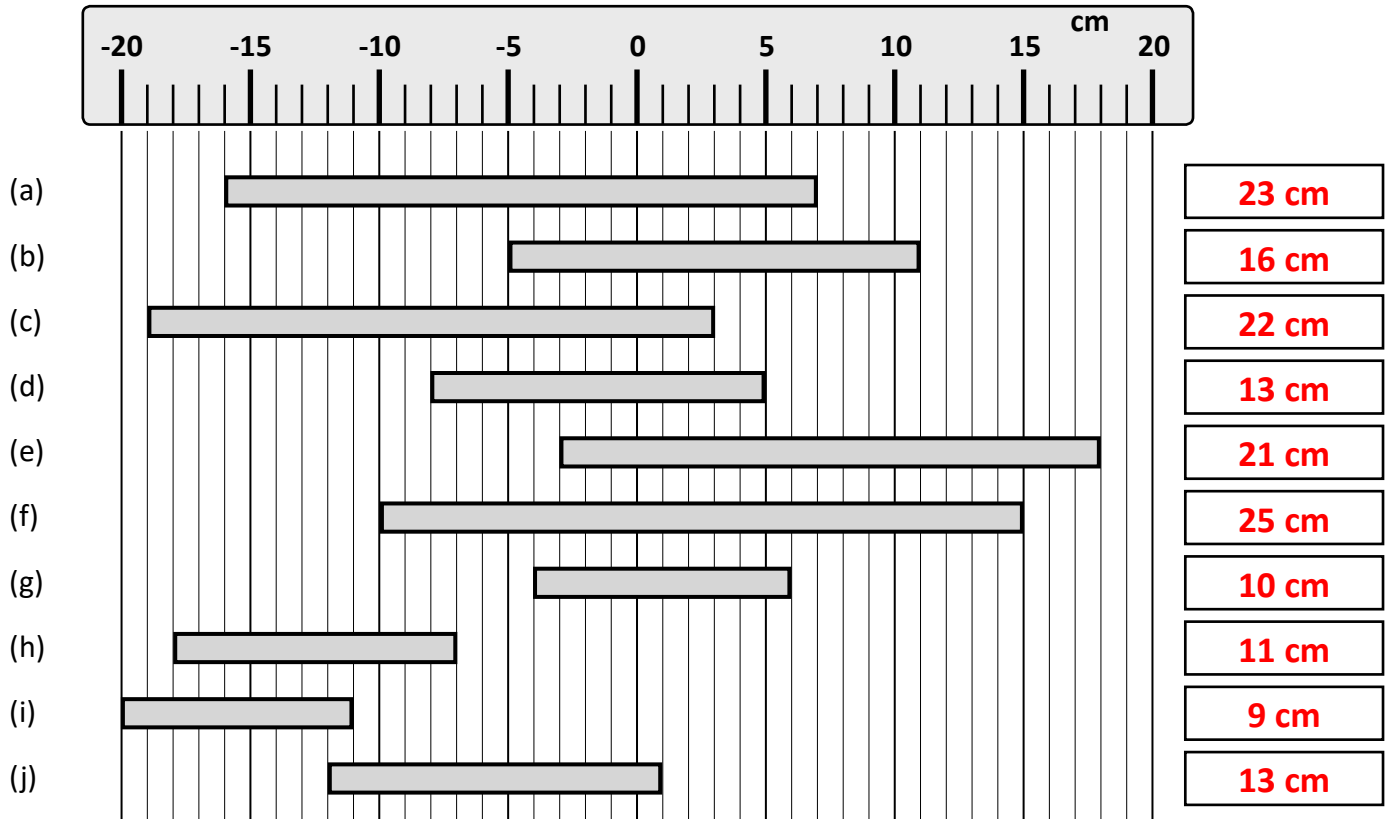
Answers

Date:

Teacher:

Year
6

(1) Use the negative number ruler to find the length of each rectangle.



(2) Circle the two numbers which have a difference of 3.

-5 6 4 0 **-8** -10

(3) Circle the two numbers which have a difference of 7.

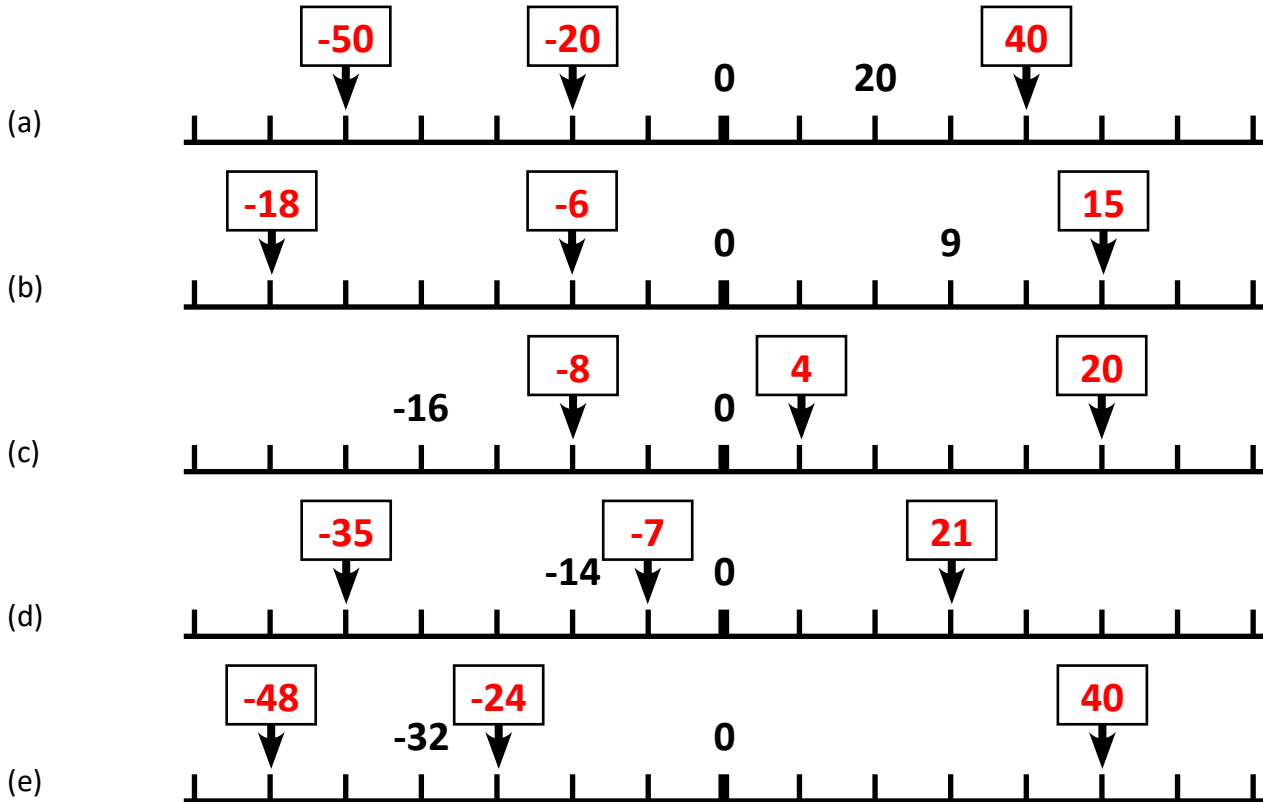
-1 **3** 9 -12 **-4** -7

(4) Put each list of numbers in order, lowest to highest.

(a)	4	-8	0	-11	-3	-11	-8	-3	0	4
(b)	-10	3	-4	-17	-2	-17	-10	-4	-2	3
(c)	12	-22	18	-9	21	-22	-9	12	18	21
(d)	-1	-31	-2	-26	-5	-31	-26	-5	-2	-1
(e)	-9	22	-48	36	-37	-48	-37	-9	22	36



(5) For each of these number lines, put the missing numbers in the boxes.



(6) The temperature one evening was 3°C . By the next morning it had dropped by 8°C . What temperature was it the next morning?

-5°C

(7) The temperature dropped during one day from 1.5°C to -3.2°C . What was the overall drop in temperature?

4.7°C

(8) The temperature at the start of one day was 4.8°C . If the temperature dropped by 7.6°C during the day, what was the new temperature?

-2.8°C

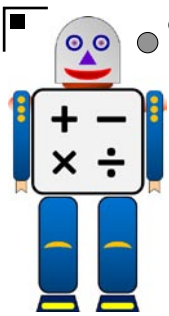
(9) One day the temperature rose from -3.9°C to 6.6°C . By how many degrees did the temperature rise?

10.5°C

(10) Find the temperature at the start of one day if it had risen during the day by 5.7°C to reach a temperature of 2.3°C

-3.4°C





Maths Homework
this week is about:

Long Multiplication

Answers

Date:

Teacher:

Year

6

For each of these questions, use the traditional method of long multiplication.

(1)

$$\begin{array}{r} 46 \\ \times 34 \\ \hline 184 \\ 1380 \\ \hline 1564 \end{array}$$

(2)

$$\begin{array}{r} 67 \\ \times 29 \\ \hline 603 \\ 1340 \\ \hline 1943 \end{array}$$

(3)

$$\begin{array}{r} 85 \\ \times 47 \\ \hline 595 \\ 3400 \\ \hline 3995 \end{array}$$

(4)

$$\begin{array}{r} 29 \\ \times 86 \\ \hline 174 \\ 2320 \\ \hline 2494 \end{array}$$

(5)

$$\begin{array}{r} 76 \\ \times 57 \\ \hline 532 \\ 3800 \\ \hline 4332 \end{array}$$

(6)

$$\begin{array}{r} 58 \\ \times 98 \\ \hline 464 \\ 5220 \\ \hline 5684 \end{array}$$

(7)

$$\begin{array}{r} 253 \\ \times 84 \\ \hline 1012 \\ 20240 \\ \hline 21252 \end{array}$$

(8)

$$\begin{array}{r} 694 \\ \times 36 \\ \hline 4164 \\ 20820 \\ \hline 24984 \end{array}$$

(9)

$$\begin{array}{r} 827 \\ \times 57 \\ \hline 5789 \\ 41350 \\ \hline 47139 \end{array}$$

(10)

$$\begin{array}{r} 1345 \\ \times 27 \\ \hline 9415 \\ 26900 \\ \hline 36315 \end{array}$$

(11)

$$\begin{array}{r} 2894 \\ \times 65 \\ \hline 14470 \\ 173640 \\ \hline 188110 \end{array}$$

(12)

$$\begin{array}{r} 7623 \\ \times 87 \\ \hline 53361 \\ 609840 \\ \hline 663201 \end{array}$$



For each of these questions, use the grid method of long multiplication.

(13) 37×46

	30	7	1200
40	1200	280	280
6	180	42	180
			42
			1702
			2

Answer: 1702

(14) 59×83

	50	9	4000
80	4000	720	720
3	150	27	150
			27
			4897

Answer: 4897

(15) 78×65

	70	8	4200
60	4200	480	480
5	350	40	350
			40
			5070
			11

Answer: 5070

(16) 92×48

	90	2	3600
40	3600	80	80
8	720	16	720
			16
			4416
			11

Answer: 4416

(17) 125×38

	100	20	5	3000
30	3000	600	150	600
8	800	160	40	150
				40
				4750
				11

Answer: 4750

(18) 274×63

	200	70	4	12000
60	12000	4200	240	4200
3	600	210	12	240
				600
				210
				12
				17262
				1

Answer: 17262

(19) 652×47

	600	50	2	24000
40	24000	2000	80	2000
7	4200	350	14	80
				4200
				350
				14
				30644
				1 1

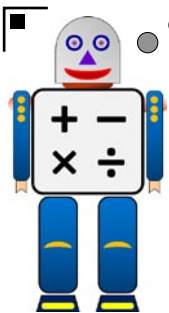
Answer: 30644

(20) 829×75

	800	20	9	56000
70	56000	1400	630	1400
5	4000	100	45	630
				4000
				100
				45
				62175
				11

Answer: 62175





Maths Homework
this week is about:

Long Division

Answers

Date:

Teacher:

Year

6

Use long division, showing your working, to find the answer to each question.

(1) $672 \div 12$

$$\begin{array}{r} 56 \\ 12 \overline{) 672} \\ \underline{60} \\ 72 \\ \underline{72} \\ 0 \end{array}$$

(2) $948 \div 12$

$$\begin{array}{r} 79 \\ 12 \overline{) 948} \\ \underline{84} \\ 108 \\ \underline{108} \\ 0 \end{array}$$

(3) $882 \div 14$

$$\begin{array}{r} 63 \\ 14 \overline{) 882} \\ \underline{84} \\ 42 \\ \underline{42} \\ 0 \end{array}$$

(4) $684 \div 18$

$$\begin{array}{r} 38 \\ 18 \overline{) 684} \\ \underline{54} \\ 144 \\ \underline{144} \\ 0 \end{array}$$

(5) $735 \div 15$

$$\begin{array}{r} 49 \\ 15 \overline{) 735} \\ \underline{60} \\ 135 \\ \underline{135} \\ 0 \end{array}$$

(6) $768 \div 24$

$$\begin{array}{r} 32 \\ 24 \overline{) 768} \\ \underline{72} \\ 48 \\ \underline{48} \\ 0 \end{array}$$

(7) $855 \div 19$

$$\begin{array}{r} 45 \\ 19 \overline{) 855} \\ \underline{76} \\ 95 \\ \underline{95} \\ 0 \end{array}$$

(8) $864 \div 32$

$$\begin{array}{r} 27 \\ 32 \overline{) 864} \\ \underline{64} \\ 224 \\ \underline{224} \\ 0 \end{array}$$

(9) $949 \div 13$

$$\begin{array}{r} 73 \\ 13 \overline{) 949} \\ \underline{91} \\ 39 \\ \underline{39} \\ 0 \end{array}$$

(10) $945 \div 45$

$$\begin{array}{r} 21 \\ 45 \overline{) 945} \\ \underline{90} \\ 45 \\ \underline{45} \\ 0 \end{array}$$



(11) $4176 \div 12$

$$\begin{array}{r} 348 \\ 12 \overline{) 4176} \\ \underline{36} \\ 57 \\ \underline{48} \\ 96 \\ \underline{96} \\ 0 \end{array}$$

(12) $5838 \div 14$

$$\begin{array}{r} 417 \\ 14 \overline{) 5838} \\ \underline{56} \\ 23 \\ \underline{14} \\ 98 \\ \underline{98} \\ 0 \end{array}$$

(13) $8874 \div 17$

$$\begin{array}{r} 522 \\ 17 \overline{) 8874} \\ \underline{85} \\ 37 \\ \underline{34} \\ 34 \\ \underline{34} \\ 0 \end{array}$$

(14) $7353 \div 19$

$$\begin{array}{r} 387 \\ 19 \overline{) 7353} \\ \underline{57} \\ 165 \\ \underline{152} \\ 133 \\ \underline{133} \\ 0 \end{array}$$

(15) $5229 \div 21$

$$\begin{array}{r} 249 \\ 21 \overline{) 5229} \\ \underline{42} \\ 102 \\ \underline{84} \\ 189 \\ \underline{189} \\ 0 \end{array}$$

(16) $5226 \div 26$

$$\begin{array}{r} 201 \\ 26 \overline{) 5226} \\ \underline{52} \\ 02 \\ \underline{00} \\ 26 \\ \underline{26} \\ 0 \end{array}$$

(17) $5910 \div 15$

$$\begin{array}{r} 394 \\ 15 \overline{) 5910} \\ \underline{45} \\ 141 \\ \underline{135} \\ 60 \\ \underline{60} \\ 0 \end{array}$$

(18) $9262 \div 22$

$$\begin{array}{r} 421 \\ 22 \overline{) 9262} \\ \underline{88} \\ 46 \\ \underline{44} \\ 22 \\ \underline{22} \\ 0 \end{array}$$

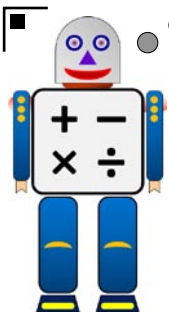
(19) $8277 \div 31$

$$\begin{array}{r} 267 \\ 31 \overline{) 8277} \\ \underline{62} \\ 207 \\ \underline{186} \\ 217 \\ \underline{217} \\ 0 \end{array}$$

(20) $8964 \div 18$

$$\begin{array}{r} 498 \\ 18 \overline{) 8964} \\ \underline{72} \\ 176 \\ \underline{162} \\ 144 \\ \underline{144} \\ 0 \end{array}$$





Maths Homework
this week is about:

Mental Calculations

Answers

Date:

Teacher:

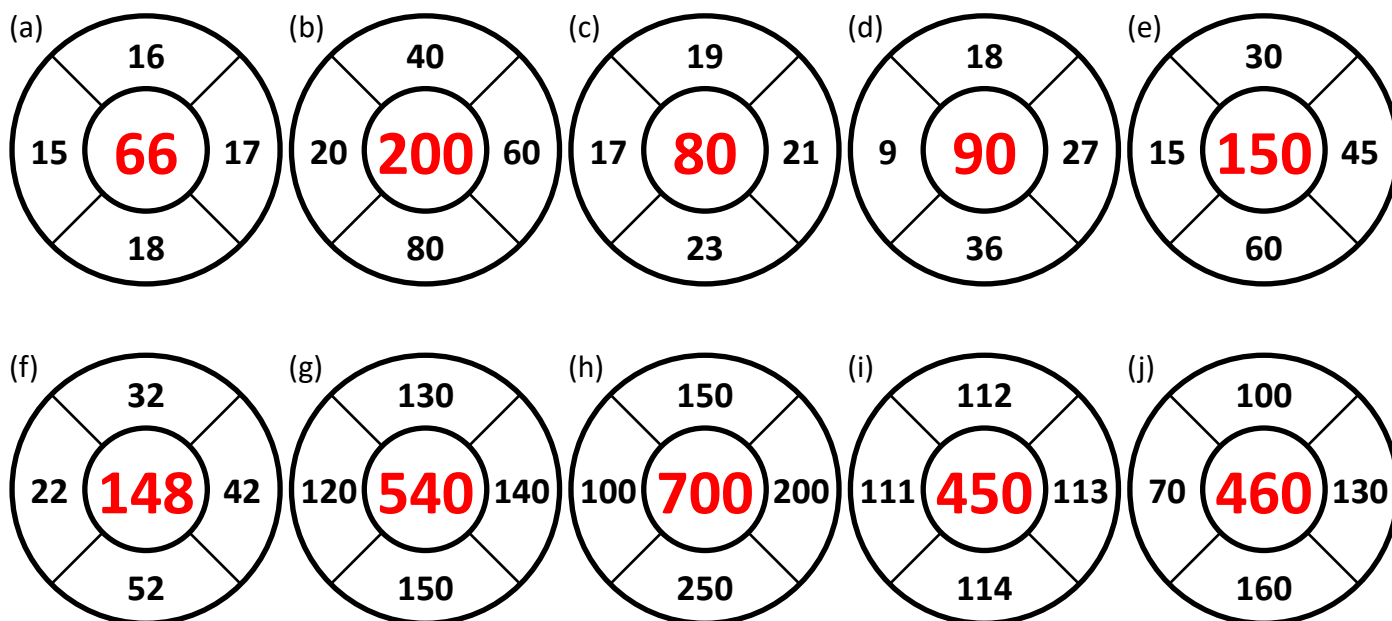
Year

6

For all the questions on this sheet, you should try to work out the answer in your head without writing down any working.

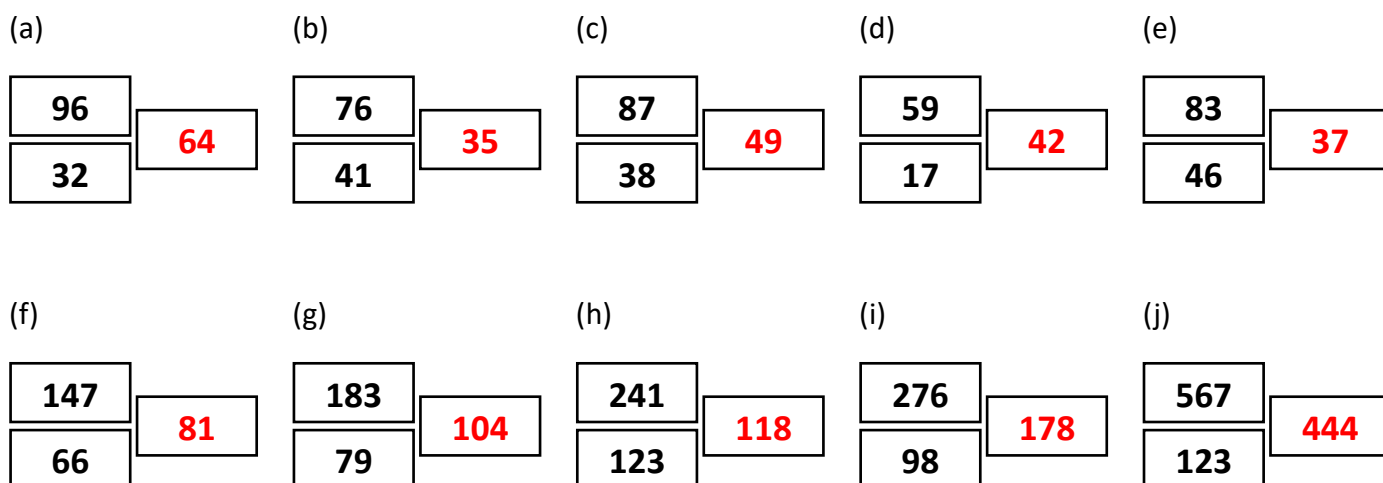
(1) Addition Circles.

Add together the numbers around each circle and write your answer in the centre circle.



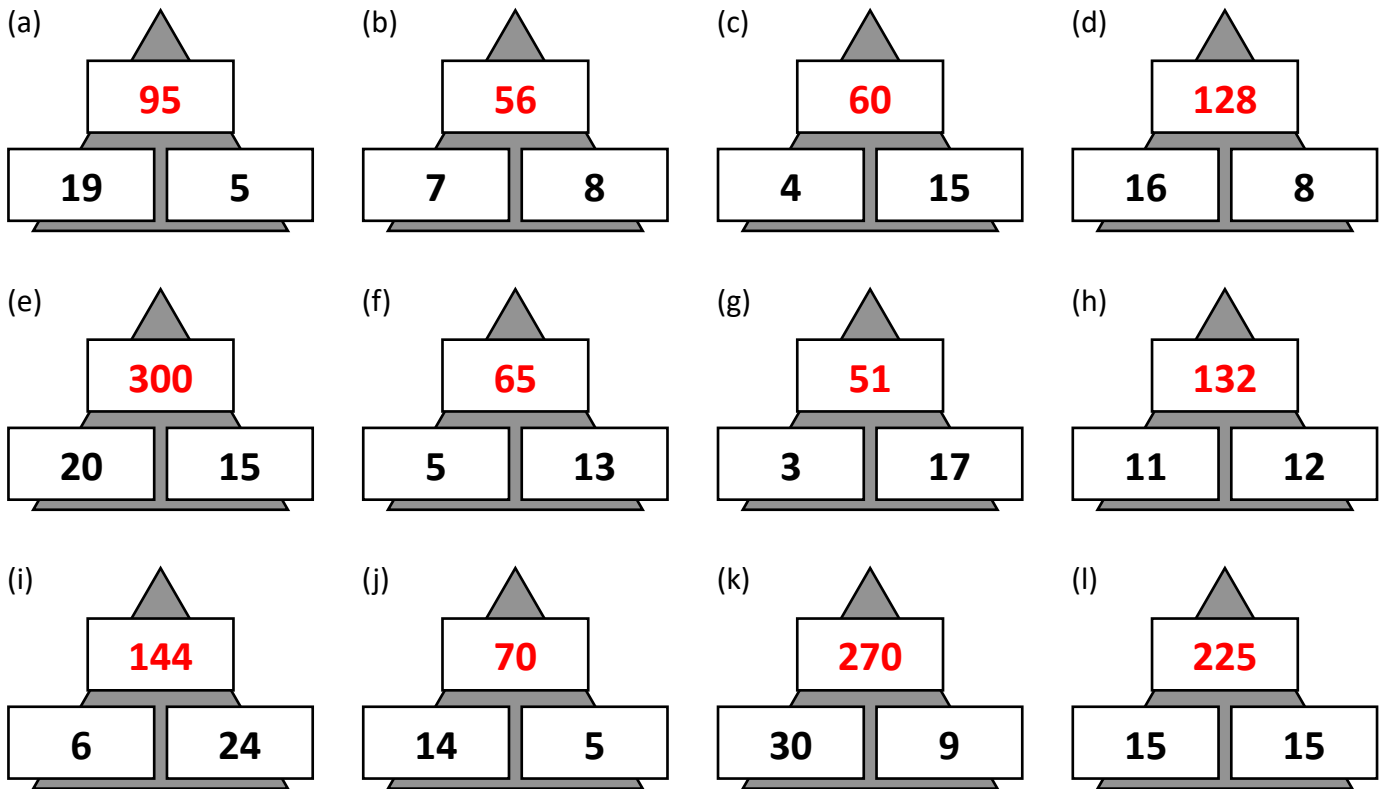
(2) Subtraction Blocks.

Subtract each pair of numbers and write your answer in the box.



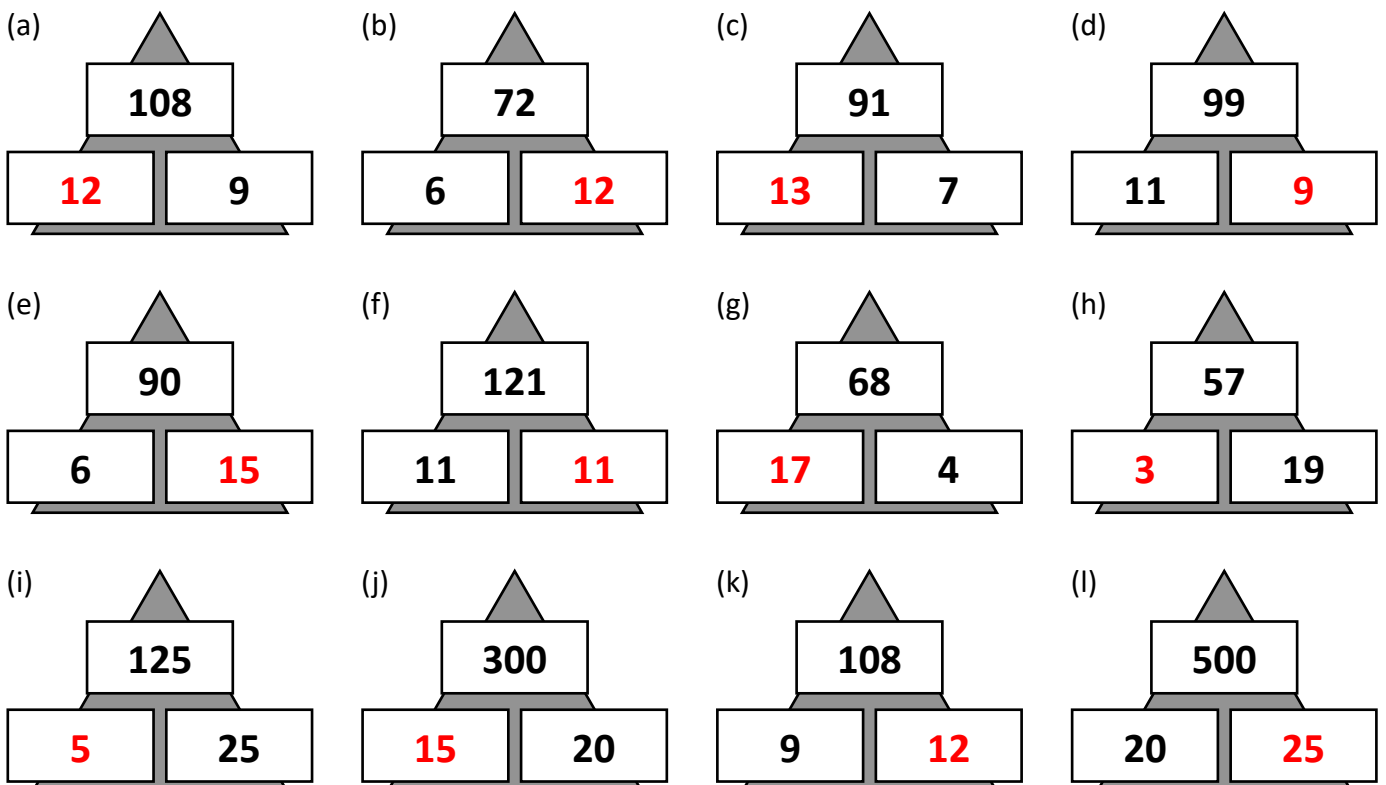
(3) Multiplication Pyramids.

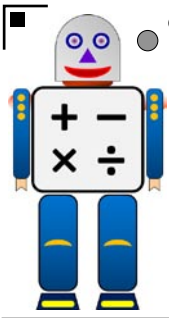
Multiply each pair of numbers and write your answer at the top of the pyramid.



(4) Division Pyramids.

Divide the number at the top of the pyramid by the number at the bottom and write your answer in the empty space in the pyramid.





Maths Homework
this week is about:

Factors, Multiples and Primes

Answers

Date:

Teacher:

Year
6

(1) Circle all the prime numbers in this list.

1 **2** **3** 4 **5** 6 **7** 8 9 10

(2) What is the next prime number after 29?

31

(3) Give the next prime number after 47?

53

(4) Give the next five multiples of each of the following numbers.

(a)	7	14	21	28	35	42
(b)	11	22	33	44	55	66
(c)	13	26	39	52	65	78
(d)	35	70	105	140	175	210
(e)	46	92	138	184	230	276

(5) For each pair of numbers, circle the number in the box which is a common multiple of both.

(a)	<table border="1"><tr><td>3</td><td>5</td></tr><tr><td>8</td><td>15</td></tr><tr><td>16</td><td>35</td></tr></table>	3	5	8	15	16	35	(b)	<table border="1"><tr><td>2</td><td>7</td></tr><tr><td>5</td><td>11</td></tr><tr><td>27</td><td>28</td></tr></table>	2	7	5	11	27	28	(c)	<table border="1"><tr><td>4</td><td>5</td></tr><tr><td>1</td><td>4</td></tr><tr><td>20</td><td>24</td></tr></table>	4	5	1	4	20	24
3	5																						
8	15																						
16	35																						
2	7																						
5	11																						
27	28																						
4	5																						
1	4																						
20	24																						
(d)	<table border="1"><tr><td>6</td><td>7</td></tr><tr><td>6</td><td>19</td></tr><tr><td>21</td><td>42</td></tr></table>	6	7	6	19	21	42	(e)	<table border="1"><tr><td>5</td><td>8</td></tr><tr><td>5</td><td>40</td></tr><tr><td>50</td><td>88</td></tr></table>	5	8	5	40	50	88	(f)	<table border="1"><tr><td>2</td><td>17</td></tr><tr><td>2</td><td>15</td></tr><tr><td>34</td><td>217</td></tr></table>	2	17	2	15	34	217
6	7																						
6	19																						
21	42																						
5	8																						
5	40																						
50	88																						
2	17																						
2	15																						
34	217																						



(6) Give the factors of each of these numbers.

- (a) **7** has factors **1** and **7**
- (b) **11** has factors **1** and **11**
- (c) **13** has factors **1** and **13**
- (d) **19** has factors **1** and **19**

(e) Fill in the missing word in this sentence:

Because each of the above numbers have exactly TWO FACTORS,

they are called **prime** numbers.

(7) Give all the pairs of factors for each of these numbers:

- (a) Factors of **10**
 1×10
 2×5
- (b) Factors of **20**
 1×20
 2×10
 4×5
- (c) Factors of **16**
 1×16
 2×8
 4×4
- (d) Factors of **32**
 1×32
 2×16
 4×8
- (e) Factors of **42**
 1×42
 2×21
 3×14
 6×7
- (f) Factors of **50**
 1×50
 2×25
 5×10
- (g) Factors of **70**
 1×70
 2×35
 5×14
 7×10
- (h) Factors of **100**
 1×100
 2×50
 4×25
 5×20
 10×10

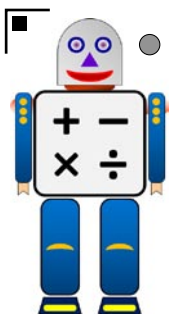
(8) (a) Give the common factors of 10 and 16:

1, 2

(b) Give the common factors of 20 and 50:

1, 2, 5, 10





Maths Homework
this week is about:

Order of Operations Calculations

Answers

Date:

Teacher:

Year

6

(1) Find the answer to each calculation.

(a)	$5 \times 2 + 6$	=	16
(b)	$8 \times 7 - 9$	=	47
(c)	$20 \div 4 + 6$	=	11
(d)	$50 \div 5 - 3$	=	7
(e)	$8 + 5 \times 4$	=	28
(f)	$7 + 6 \times 8$	=	55
(g)	$9 + 15 \div 3$	=	14
(h)	$28 - 3 \times 2$	=	22
(i)	$40 - 8 \times 3$	=	16
(j)	$50 - 21 \div 7$	=	47

(2) Find the answer to each calculation.

(a)	$4 + 2 \times 3 + 1$	=	11
(b)	$1 + 6 \times 5 + 3$	=	34
(c)	$5 + 5 \times 8 + 4$	=	49
(d)	$8 + 3 \times 7 - 2$	=	27
(e)	$12 + 9 \times 2 - 12$	=	18
(f)	$50 - 3 \times 4 - 8$	=	30
(g)	$7 + 10 \div 2 + 3$	=	15
(h)	$6 + 8 \div 4 + 10$	=	18
(i)	$15 + 20 \div 4 - 10$	=	10
(j)	$40 - 30 \div 6 + 1$	=	36



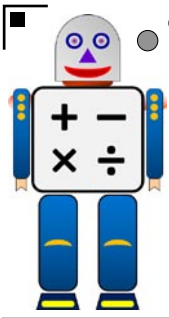
(3) Find the answer to each calculation. Remember to find the value inside the brackets first.

(a)	$(4 + 8) \times 5$	=	60
(b)	$(3 + 4) \times 11$	=	77
(c)	$6 \times (9 + 3)$	=	72
(d)	$(9 - 2) \times 6$	=	42
(e)	$28 \div (4 + 3)$	=	4
(f)	$60 \div (16 - 4)$	=	5
(g)	$(31 - 3) \div 7$	=	4
(h)	$(28 + 8) \div 12$	=	3
(i)	$9 \times (22 - 10)$	=	108
(j)	$(32 - 22) \times 8$	=	80

(4) Find the answer to each calculation. Again, the value inside each pair of brackets needs to be found first.

(a)	$(3 + 5) \times (2 + 4)$	=	48
(b)	$(2 + 7) \times (3 + 4)$	=	63
(c)	$(3 + 9) \times (17 - 9)$	=	96
(d)	$(19 - 16) \times (8 + 6)$	=	42
(e)	$(49 - 47) \times (2 + 9)$	=	22
(f)	$(82 - 62) \times (64 - 59)$	=	100
(g)	$(88 - 28) \div (1 + 4)$	=	12
(h)	$(49 + 14) \div (17 - 10)$	=	9
(i)	$(22 + 23) \div (51 - 48)$	=	15
(j)	$(40 + 44) \div (28 - 22)$	=	14





Maths Homework
this week is about:

**Various
Maths Problems**

Answers

Date:

Teacher:

Year

6

- (1) A shop sold packets of crisps at 45p each. How much would five packets of crisps cost?

$$45 \times 5 = 225$$

£2.25

- (2) Find the total of the spots on all faces of three regular dice.

$$1 + 2 + 3 + 4 + 5 + 6 = 21$$

$$21 \times 3 = 63$$

63

- (3) A grandmother shared £25.80 equally between her three grandchildren. How much money did each grandchild receive?

$$25.80 \div 3 = 8.60$$

£8.60

- (4) Pine trees were planted in neat rows in a field. If there were 12 rows with 18 trees in each row, how many trees were there altogether?

$$12 \times 18 = 216$$

216

- (5) The number of minutes spent on homework by a pupil on five nights of one week were: 23 mins, 28 mins, 36 mins, 18 mins, 22 mins. Find the total time spent, in hours and minutes

$$23 + 28 + 36 + 18 + 22 = 127$$

$$127 \div 60 = 2 \text{ remainder } 7$$

2 hrs 7 mins

- (6) A computer was priced at £645. If it was reduced in a sale by £137, what was the sale price?

$$645 - 137 = 508$$

£508

- (7) There are 656 car parking spaces in a large car park. All the spaces are arranged in rows with the same number of spaces in each row. If there are 16 rows, how many spaces are there in each row?

$$656 \div 16 = 41$$

41

- (8) How many hours are there in total in one week?

$$24 \times 7 = 168$$

168

- (9) Find the sum of all the whole numbers from 1 to 20.

$$1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 + 15 + 16 + 17 + 18 + 19 + 20 = 210$$

or, pair up numbers from each end of this list, working in, to make 10 pairs of 21, and $10 \times 21 = 210$

210

- (10) A box of dog biscuits contains 96 biscuits. If the dog is given 8 biscuits per day, for how many days will the box last?

$$96 \div 8 = 12$$

12 days



(11) Use this menu to answer the questions below.

Menu	
Tea	£0.80
Coffee	£1.10
Orange Juice	£1.25
Ham Sandwich	£1.80
Cheese Sandwich	£1.75
Fruit Salad	£1.40
Flapjack	£0.90
Frozen Yoghurt	£0.70

(a) Find the cost of seven cups of tea.

$$7 \times 0.80 = 5.60$$

£5.60

(b) What is the cost of a coffee and a cheese sandwich?

$$1.10 + 1.75 = 2.85$$

£2.85

(c) Give the total cost of two glasses of orange juice and two flapjacks.

$$1.25 + 1.25 + 0.90 + 0.90$$

£4.30

(d) How much would twelve frozen yogurts cost?

$$12 \times 0.70 = 8.40$$

£8.40

(e) Calculate the total price of four cheese sandwiches and two fruit salads.

$$1.75 \times 4 = 7.00 \quad 1.40 \times 2 = 2.80$$

$$7.00 + 2.80 = 9.80$$

£9.80

(f) Work out the cost of six coffees and three ham sandwiches.

$$1.10 \times 6 = 6.60 \quad 1.80 \times 3 = 5.40$$

$$6.60 + 5.40 = 12$$

£12

(g) What is the total cost of eight fruit salads?

$$1.40 \times 8 = 11.20$$

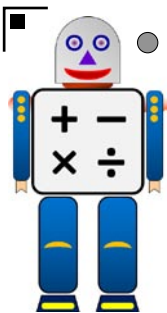
£11.20

(h) Find the total cost of one of each item on the menu.

$$0.80 + 1.10 + 1.25 + 1.80 + 1.75 + 1.40 + 0.90 + 0.70 = 9.70$$

£9.70





Maths Homework
this week is about:

Checking Answers using Estimation

Answers

Date:

Teacher:

Year
6

- (1) Sue said that $4.9 \times 12.1 = 59.29$

By rounding each of the numbers to the nearest whole number, find an approximate answer to see whether Sue could be correct.

$$5 \times 12 = 60$$

This is close to 59.29, so Sue could be correct

- (2) Sam said that $29.7 \times 41.3 = 12266.1$

By rounding each of the numbers to the nearest ten, find an approximate answer to see whether Sam could be correct.

$$30 \times 40 = 1200$$

This is a long way from 12266.1, so Sam is incorrect

- (3) Helen said that $80.94 \div 1.9 = 42.6$

By rounding each of the numbers to an appropriate value, find an approximate answer to see whether Helen could be correct.

$$80 \div 2 = 40$$

This is close to 42.6, so Helen could be correct

- (4) By rounding each of the numbers to the nearest whole number, find an approximate answer to each of these calculations.

	Calculation	Approximate Values	Approximate Answer
(a)	12.4×9.7	12×10	120
(b)	13.1×4.3	13×4	52
(c)	5.2×17.9	5×18	90
(d)	19.7×15.2	20×15	300
(e)	44.8×3.8	45×4	180
(f)	29.7×30.3	30×30	900
(g)	$39.6 \div 4.7$	$40 \div 5$	8
(h)	$99.9 \div 19.9$	$100 \div 20$	5
(i)	$79.5 \div 3.9$	$80 \div 4$	20
(j)	$65.7 \div 5.6$	$66 \div 6$	11



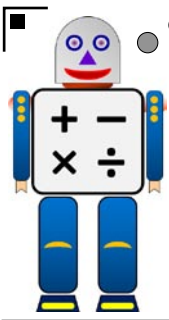
- (5) Use an estimate to see whether the following answers, given by a pupil, could be correct or not. Write "YES" in the last column if the answer could be correct, and "NO" if it cannot be correct.

	Calculation	Pupil's Answer	Your Estimate	YES / NO
(eg)	46 + 11	57	50 + 10 = 60	YES
(a)	89 + 122	311	90 + 120 = 210	NO
(b)	71 + 202	273	70 + 200 = 270	YES
(c)	60.3 - 19.6	20.7	60 - 20 = 40	NO
(d)	139.7 - 39.7	39.7	140 - 40 = 100	NO
(e)	259.8 - 60.4	199.4	260 - 60 = 200	YES
(f)	7.9 × 9.2	92.68	8 × 9 = 72	NO
(g)	11.9 × 9.9	117.81	12 × 10 = 120	YES
(h)	11.2 × 4.1	45.92	11 × 4 = 44	YES
(i)	70.11 ÷ 4.8	34.6	70 ÷ 5 = 14	NO
(j)	60.39 ÷ 3.3	18.3	60 ÷ 3 = 20	YES

- (6) Use a suitable estimate to see whether each of these sale price savings on the labels could be correct. Say "YES" if the sale price could be correct, and "NO" if it cannot be correct.

<p>(eg)</p> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-right: 10px;"> WAS £69 NOW £31 SAVE £38 </div> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $70 - 30 = 40$ YES </div>	<p>(c)</p> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-right: 10px;"> WAS £929 NOW £801 SAVE £128 </div> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $930 - 800 = 130$ YES </div>
<p>(a)</p> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-right: 10px;"> WAS £121 NOW £101 SAVE £10 </div> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $120 - 100 = 20$ NO </div>	<p>(d)</p> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-right: 10px;"> WAS £468 NOW £239 SAVE £229 </div> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $470 - 240 = 230$ YES </div>
<p>(b)</p> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-right: 10px;"> WAS £249 NOW £151 SAVE £50 </div> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $250 - 150 = 100$ NO </div>	<p>(e)</p> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-right: 10px;"> WAS £861 NOW £459 SAVE £202 </div> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $860 - 460 = 400$ NO </div>





Maths Homework
this week is about:

Ordering and Simplifying Fractions

Answers

Date:

Teacher:

Year
6

(1) Put a circle around the largest fraction in each box.

(a) $\frac{2}{3}$ $\frac{2}{5}$	(b) $\frac{4}{9}$ $\frac{4}{11}$	(c) $\frac{7}{18}$ $\frac{7}{15}$	(d) $\frac{12}{19}$ $\frac{12}{21}$
(e) $\frac{2}{9}$ $\frac{4}{9}$	(f) $\frac{11}{14}$ $\frac{9}{14}$	(g) $\frac{11}{18}$ $\frac{13}{18}$	(h) $\frac{14}{23}$ $\frac{19}{23}$

(2) Put the correct symbol in each box. Choose from <, > or =.

(a) $\frac{3}{11}$ < $\frac{4}{11}$	(b) $\frac{7}{16}$ > $\frac{5}{16}$	(c) $\frac{5}{15}$ = $\frac{2}{6}$	(d) $\frac{6}{17}$ > $\frac{6}{19}$
(e) $\frac{1}{4}$ < $\frac{1}{3}$	(f) $\frac{3}{4}$ > $\frac{2}{3}$	(g) $\frac{3}{17}$ = $\frac{9}{51}$	(h) $\frac{19}{20}$ > $\frac{9}{10}$
(i) $\frac{83}{100}$ < $\frac{43}{50}$	(j) $\frac{3}{5}$ < $\frac{17}{20}$	(k) $\frac{6}{8}$ = $\frac{3}{4}$	(l) $\frac{17}{24}$ > $\frac{13}{25}$

(3) Put each of these sets of fractions in order, from lowest to highest.

(a) $\frac{3}{11}$ $\frac{10}{11}$ $\frac{2}{11}$ $\frac{7}{11}$	→	$\frac{2}{11}$	$\frac{3}{11}$	$\frac{7}{11}$	$\frac{10}{11}$
(b) $\frac{6}{13}$ $\frac{6}{17}$ $\frac{6}{7}$ $\frac{6}{11}$	→	$\frac{6}{17}$	$\frac{6}{13}$	$\frac{6}{11}$	$\frac{6}{7}$
(c) $\frac{10}{19}$ $\frac{4}{19}$ $\frac{13}{19}$ $\frac{7}{19}$	→	$\frac{4}{19}$	$\frac{7}{19}$	$\frac{10}{19}$	$\frac{13}{19}$
(d) $\frac{3}{14}$ $\frac{3}{13}$ $\frac{3}{20}$ $\frac{3}{16}$	→	$\frac{3}{20}$	$\frac{3}{16}$	$\frac{3}{14}$	$\frac{3}{13}$
(e) $\frac{2}{5}$ $\frac{9}{10}$ $\frac{3}{5}$ $\frac{1}{4}$	→	$\frac{1}{4}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{9}{10}$
(f) $\frac{3}{4}$ $\frac{6}{7}$ $\frac{2}{9}$ $\frac{1}{3}$	→	$\frac{2}{9}$	$\frac{1}{3}$	$\frac{3}{4}$	$\frac{6}{7}$



(4) Write each of these fractions as simply as possible.

(a) $\frac{4}{6} = \frac{2}{3}$

(b) $\frac{6}{8} = \frac{3}{4}$

(c) $\frac{8}{14} = \frac{4}{7}$

(d) $\frac{10}{18} = \frac{5}{9}$

(e) $\frac{12}{14} = \frac{6}{7}$

(f) $\frac{4}{10} = \frac{2}{5}$

(g) $\frac{14}{24} = \frac{7}{12}$

(h) $\frac{4}{30} = \frac{2}{15}$

(i) $\frac{18}{34} = \frac{9}{17}$

(5) Write each of these fractions as simply as possible.

(a) $\frac{12}{15} = \frac{4}{5}$

(b) $\frac{40}{55} = \frac{8}{11}$

(c) $\frac{8}{84} = \frac{2}{21}$

(d) $\frac{25}{45} = \frac{5}{9}$

(e) $\frac{30}{96} = \frac{5}{16}$

(f) $\frac{18}{21} = \frac{6}{7}$

(g) $\frac{20}{68} = \frac{5}{17}$

(h) $\frac{56}{91} = \frac{8}{13}$

(i) $\frac{27}{72} = \frac{3}{8}$

(6) Say which number was used to simplify each of these fractions.

(a) $\frac{36}{44} = \frac{9}{11}$
 Simplified by $\div 4$

(b) $\frac{35}{84} = \frac{5}{12}$
 Simplified by $\div 7$

(c) $\frac{21}{48} = \frac{7}{16}$
 Simplified by $\div 3$

(d) $\frac{40}{45} = \frac{8}{9}$
 Simplified by $\div 5$

(e) $\frac{36}{66} = \frac{6}{11}$
 Simplified by $\div 6$

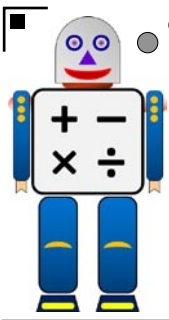
(f) $\frac{16}{152} = \frac{2}{19}$
 Simplified by $\div 8$

(g) $\frac{36}{264} = \frac{3}{22}$
 Simplified by $\div 12$

(h) $\frac{54}{126} = \frac{6}{14}$
 Simplified by $\div 9$

(i) $\frac{33}{88} = \frac{3}{8}$
 Simplified by $\div 11$





Maths Homework
this week is about:

Adding and Subtracting Fractions

Answers

Date:

Teacher:


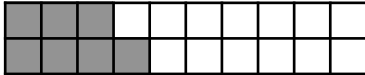
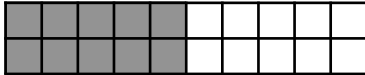
Year
6

(1) Add each pair of fractions.




$$\begin{array}{l} \text{(a)} \quad \frac{2}{7} + \frac{3}{7} = \frac{5}{7} \\ \text{(d)} \quad \frac{8}{23} + \frac{11}{23} = \frac{19}{23} \end{array} \quad \begin{array}{l} \text{(b)} \quad \frac{3}{11} + \frac{5}{11} = \frac{8}{11} \\ \text{(e)} \quad \frac{7}{19} + \frac{7}{19} = \frac{14}{19} \end{array} \quad \begin{array}{l} \text{(c)} \quad \frac{6}{15} + \frac{7}{15} = \frac{13}{15} \\ \text{(f)} \quad \frac{18}{29} + \frac{8}{29} = \frac{26}{29} \end{array}$$

(2) Use the strips to add each pair of fractions.




Give each missing fraction, and give the answer as simply as possible.

(a)  +  = 

$$\frac{3}{20} + \frac{7}{20} = \frac{10}{20} = \frac{1}{2}$$

(b)  +  = 

$$\frac{7}{20} + \frac{9}{20} = \frac{16}{20} = \frac{4}{5}$$

(c)  +  = 

$$\frac{9}{20} + \frac{9}{20} = \frac{18}{20} = \frac{9}{10}$$

(3) Change to fractions with the same denominator, and then add each pair of fractions.

$$\begin{array}{l} \text{(a)} \quad \frac{1}{2} + \frac{1}{3} = \frac{3}{6} + \frac{2}{6} = \frac{5}{6} \\ \text{(c)} \quad \frac{1}{4} + \frac{2}{5} = \frac{5}{20} + \frac{8}{20} = \frac{13}{20} \\ \text{(e)} \quad \frac{1}{8} + \frac{3}{5} = \frac{5}{40} + \frac{24}{40} = \frac{29}{40} \end{array} \quad \begin{array}{l} \text{(b)} \quad \frac{2}{7} + \frac{2}{5} = \frac{10}{35} + \frac{14}{35} = \frac{24}{35} \\ \text{(d)} \quad \frac{3}{8} + \frac{4}{9} = \frac{27}{72} + \frac{32}{72} = \frac{59}{72} \\ \text{(f)} \quad \frac{2}{3} + \frac{1}{7} = \frac{14}{21} + \frac{3}{21} = \frac{17}{21} \end{array}$$

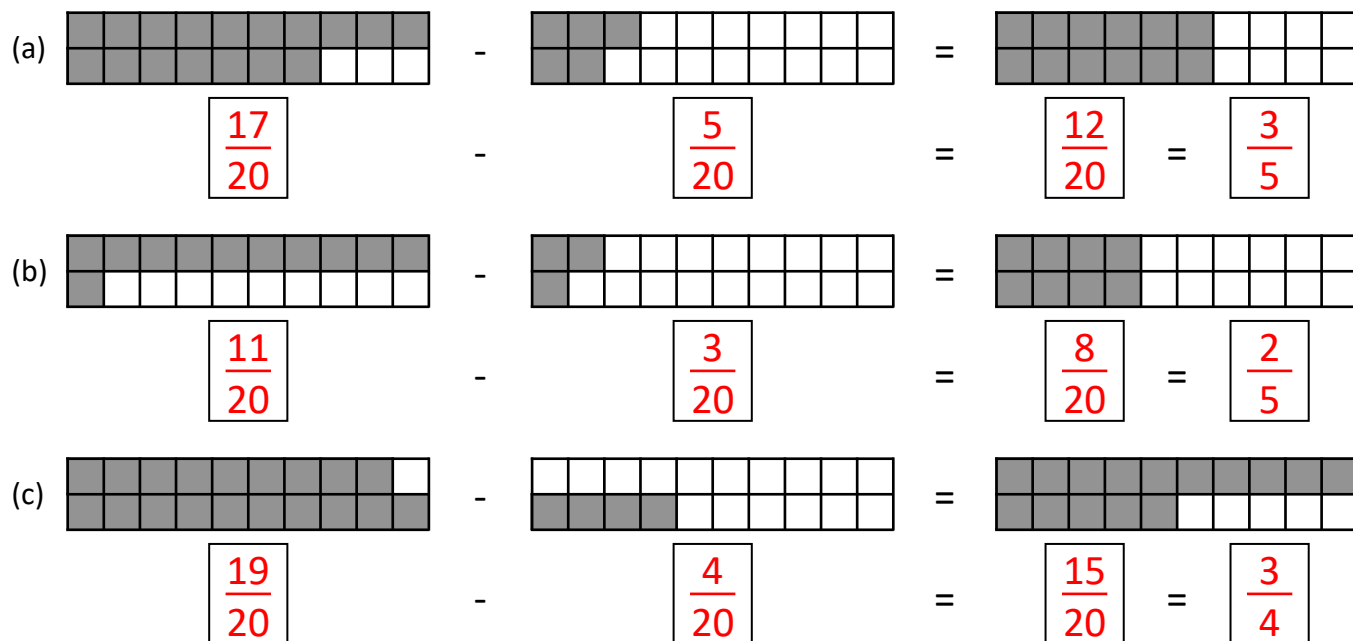


(4) Subtract each pair of fractions.

(a) $\frac{5}{9} - \frac{1}{9} = \frac{4}{9}$	(b) $\frac{12}{13} - \frac{6}{13} = \frac{6}{13}$	(c) $\frac{17}{19} - \frac{16}{19} = \frac{1}{19}$
(d) $\frac{19}{30} - \frac{8}{30} = \frac{11}{30}$	(e) $\frac{14}{27} - \frac{7}{27} = \frac{7}{27}$	(f) $\frac{30}{31} - \frac{17}{31} = \frac{13}{31}$

(5) Use the strips to subtract each pair of fractions.

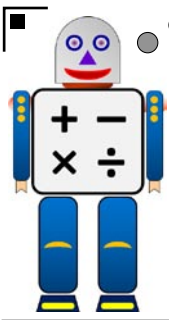
Give each missing fraction, and give the answer as simply as possible.



(6) Change to fractions with the same denominator, and then subtract each pair of fractions.

(a) $\frac{2}{3} - \frac{1}{2} = \frac{4}{6} - \frac{3}{6} = \frac{1}{6}$	(b) $\frac{4}{5} - \frac{2}{3} = \frac{12}{15} - \frac{10}{15} = \frac{2}{15}$
(c) $\frac{3}{4} - \frac{2}{3} = \frac{9}{12} - \frac{8}{12} = \frac{1}{12}$	(d) $\frac{5}{6} - \frac{2}{5} = \frac{25}{30} - \frac{12}{30} = \frac{13}{30}$
(e) $\frac{6}{7} - \frac{1}{2} = \frac{12}{14} - \frac{7}{14} = \frac{5}{14}$	(f) $\frac{3}{5} - \frac{2}{7} = \frac{21}{35} - \frac{10}{35} = \frac{11}{35}$
(g) $\frac{5}{8} - \frac{1}{5} = \frac{25}{40} - \frac{8}{40} = \frac{17}{40}$	(h) $\frac{7}{8} - \frac{2}{3} = \frac{21}{24} - \frac{16}{24} = \frac{5}{24}$
(i) $\frac{9}{10} - \frac{3}{7} = \frac{63}{70} - \frac{30}{70} = \frac{33}{70}$	(j) $\frac{13}{15} - \frac{1}{2} = \frac{26}{30} - \frac{15}{30} = \frac{11}{30}$





Maths Homework
this week is about:

Multiplying Fractions

Answers

Date:

Teacher:

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(1) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{1}{2}$).

(a) $\frac{1}{2} \times \frac{3}{7} = \frac{3}{14}$	(b) $\frac{1}{2} \times \frac{5}{8} = \frac{5}{16}$	(c) $\frac{1}{2} \times \frac{3}{7} = \frac{3}{14}$
(d) $\frac{1}{2} \times \frac{7}{9} = \frac{7}{18}$	(e) $\frac{1}{2} \times \frac{9}{11} = \frac{9}{22}$	(f) $\frac{1}{2} \times \frac{15}{17} = \frac{15}{34}$

(g) What do you notice? Numerator stays the same
Denominator doubles

(2) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{1}{3}$).

(a) $\frac{1}{3} \times \frac{5}{7} = \frac{5}{21}$	(b) $\frac{1}{3} \times \frac{4}{9} = \frac{4}{27}$	(c) $\frac{1}{3} \times \frac{2}{5} = \frac{2}{15}$
(d) $\frac{1}{3} \times \frac{7}{8} = \frac{7}{24}$	(e) $\frac{1}{3} \times \frac{8}{11} = \frac{8}{33}$	(f) $\frac{1}{3} \times \frac{1}{22} = \frac{1}{66}$

(g) What do you notice? Numerator stays the same
Denominator trebles

(3) Multiply each pair of fractions.

(In this question you are multiplying by $\frac{2}{5}$).

(a) $\frac{2}{5} \times \frac{3}{4} = \frac{6}{20}$	(b) $\frac{2}{5} \times \frac{4}{5} = \frac{8}{25}$	(c) $\frac{2}{5} \times \frac{4}{7} = \frac{8}{35}$
(d) $\frac{2}{5} \times \frac{6}{7} = \frac{12}{35}$	(e) $\frac{2}{5} \times \frac{9}{11} = \frac{18}{55}$	(f) $\frac{2}{5} \times \frac{8}{15} = \frac{16}{75}$

(g) What do you notice? Numerator doubles
Denominator is multiplied by 5



(4) Find the answer to each of these fraction multiplications.

$$(a) \frac{5}{8} \times \frac{3}{4} = \frac{15}{32}$$

$$(b) \frac{2}{9} \times \frac{4}{5} = \frac{8}{45}$$

$$(c) \frac{7}{11} \times \frac{12}{15} = \frac{84}{165}$$

$$(d) \frac{6}{7} \times \frac{8}{11} = \frac{48}{77}$$

$$(e) \frac{1}{3} \times \frac{11}{14} = \frac{11}{42}$$

$$(f) \frac{5}{7} \times \frac{8}{9} = \frac{40}{63}$$

$$(g) \frac{11}{12} \times \frac{5}{8} = \frac{55}{96}$$

$$(h) \frac{9}{10} \times \frac{7}{13} = \frac{63}{130}$$

$$(i) \frac{2}{17} \times \frac{3}{11} = \frac{6}{187}$$

(5) Find the answer to each of these fraction multiplications.
In these questions you are multiplying each fraction by itself.

$$(a) \frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$$

$$(b) \frac{2}{3} \times \frac{2}{3} = \frac{4}{9}$$

$$(c) \frac{3}{4} \times \frac{3}{4} = \frac{9}{16}$$

$$(d) \frac{4}{5} \times \frac{4}{5} = \frac{16}{25}$$

$$(e) \frac{5}{6} \times \frac{5}{6} = \frac{25}{36}$$

$$(f) \frac{6}{7} \times \frac{6}{7} = \frac{36}{49}$$

$$(g) \frac{7}{8} \times \frac{7}{8} = \frac{49}{64}$$

$$(h) \frac{8}{9} \times \frac{8}{9} = \frac{64}{81}$$

$$(i) \frac{9}{10} \times \frac{9}{10} = \frac{81}{100}$$

(6) In these questions, multiply each pair of fractions, then simplify the answer.

$$(a) \frac{3}{5} \times \frac{1}{6} = \frac{3}{30} = \frac{1}{10}$$

$$(b) \frac{4}{7} \times \frac{5}{6} = \frac{20}{42} = \frac{10}{21}$$

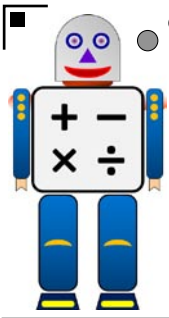
$$(c) \frac{5}{8} \times \frac{7}{15} = \frac{35}{120} = \frac{7}{24}$$

$$(d) \frac{9}{10} \times \frac{7}{12} = \frac{63}{120} = \frac{21}{40}$$

$$(e) \frac{7}{8} \times \frac{3}{14} = \frac{21}{112} = \frac{3}{16}$$

$$(f) \frac{4}{9} \times \frac{3}{8} = \frac{12}{72} = \frac{1}{6}$$





Maths Homework
this week is about:

Dividing Fractions by Whole Numbers

Answers

Date:

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Year
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(1) Circle the correct answer for each of these divisions.

(a) $\frac{2}{3} \div 5$
 $\frac{10}{3}$ $\frac{2}{15}$ $\frac{10}{15}$

(b) $\frac{4}{5} \div 2$
 $\frac{4}{10}$ $\frac{5}{6}$ $\frac{2}{5}$

(c) $\frac{3}{8} \div 3$
 $\frac{9}{8}$ $\frac{9}{24}$ $\frac{3}{24}$

(d) $\frac{5}{6} \div 3$
 $\frac{5}{18}$ $\frac{15}{18}$ $\frac{5}{2}$

(e) $\frac{2}{7} \div 6$
 $\frac{2}{42}$ $\frac{12}{7}$ $\frac{3}{42}$

(f) $\frac{7}{9} \div 4$
 $\frac{28}{36}$ $\frac{7}{36}$ $\frac{28}{9}$

(g) $\frac{9}{10} \div 5$
 $\frac{45}{10}$ $\frac{9}{2}$ $\frac{9}{50}$

(h) $\frac{9}{11} \div 8$
 $\frac{72}{88}$ $\frac{72}{11}$ $\frac{9}{88}$

(i) $\frac{7}{9} \div 9$
 $\frac{7}{1}$ $\frac{7}{81}$ $\frac{63}{9}$

(j) $\frac{3}{7} \div 10$
 $\frac{30}{70}$ $\frac{30}{7}$ $\frac{3}{70}$

(k) $\frac{1}{8} \div 8$
 $\frac{1}{64}$ $\frac{8}{64}$ $\frac{1}{1}$

(l) $\frac{5}{8} \div 6$
 $\frac{30}{8}$ $\frac{5}{48}$ $\frac{30}{48}$

(2) Divide each of these fractions by 2.

(a) $\frac{5}{9} \div 2 = \frac{5}{18}$

(b) $\frac{13}{15} \div 2 = \frac{13}{30}$

(c) $\frac{9}{13} \div 2 = \frac{9}{26}$

(d) $\frac{11}{12} \div 2 = \frac{11}{24}$

(e) $\frac{7}{11} \div 2 = \frac{7}{22}$

(f) $\frac{15}{17} \div 2 = \frac{15}{34}$

(g) $\frac{7}{17} \div 2 = \frac{7}{34}$

(h) $\frac{3}{19} \div 2 = \frac{3}{38}$

(i) $\frac{17}{19} \div 2 = \frac{17}{38}$



(3) Divide each of these fractions by 3.

(a) $\frac{2}{7} \div 3 = \frac{2}{21}$	(b) $\frac{8}{11} \div 3 = \frac{8}{33}$	(c) $\frac{1}{5} \div 3 = \frac{1}{15}$
(d) $\frac{7}{10} \div 3 = \frac{7}{30}$	(e) $\frac{5}{14} \div 3 = \frac{5}{42}$	(f) $\frac{5}{8} \div 3 = \frac{5}{24}$
(g) $\frac{2}{5} \div 3 = \frac{2}{15}$	(h) $\frac{5}{9} \div 3 = \frac{5}{27}$	(i) $\frac{10}{11} \div 3 = \frac{10}{33}$

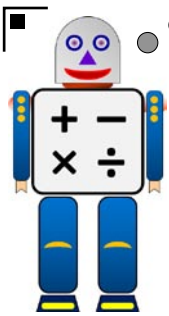
(4) Fill in the missing boxes in these calculations.

(a) $\frac{3}{4} \div 5 = \frac{3}{20}$	(b) $\frac{2}{5} \div 3 = \frac{2}{15}$	(c) $\frac{4}{7} \div 5 = \frac{4}{35}$
(d) $\frac{5}{7} \div 4 = \frac{5}{28}$	(e) $\frac{5}{8} \div 6 = \frac{5}{48}$	(f) $\frac{2}{9} \div 7 = \frac{2}{63}$
(g) $\frac{5}{6} \div 2 = \frac{5}{12}$	(h) $\frac{7}{9} \div 4 = \frac{7}{36}$	(i) $\frac{5}{11} \div 6 = \frac{5}{66}$
(j) $\frac{1}{9} \div 8 = \frac{1}{72}$	(k) $\frac{3}{11} \div 7 = \frac{3}{77}$	(l) $\frac{5}{6} \div 9 = \frac{5}{54}$

(5) For each of these questions, divide the fraction by the whole number, and then simplify your answer.

(a) $\frac{10}{11} \div 5 = \frac{10}{55} = \frac{2}{11}$	(b) $\frac{18}{19} \div 3 = \frac{18}{57} = \frac{6}{19}$
(c) $\frac{12}{13} \div 3 = \frac{12}{39} = \frac{4}{13}$	(d) $\frac{9}{10} \div 6 = \frac{9}{60} = \frac{3}{20}$
(e) $\frac{10}{17} \div 4 = \frac{10}{68} = \frac{5}{34}$	(f) $\frac{21}{22} \div 7 = \frac{21}{154} = \frac{3}{22}$





Maths Homework
this week is about:

Fractions to Decimals

Answers

Date:

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(1) Fill in the missing values for these fractions and decimals.

(a) $\boxed{0.7} = \frac{7}{10}$

(b) $0.3 = \boxed{\frac{3}{10}}$

(c) $0.4 = \boxed{\frac{4}{10}}$

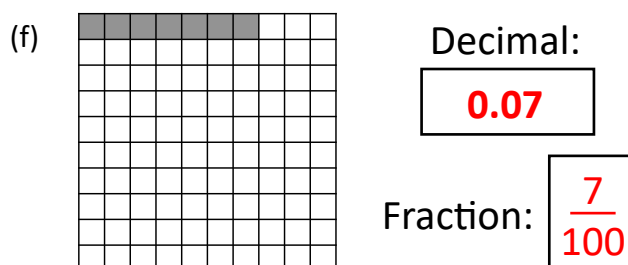
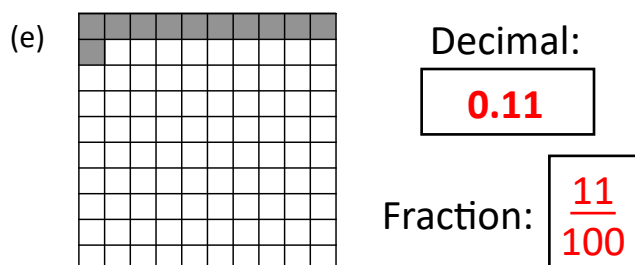
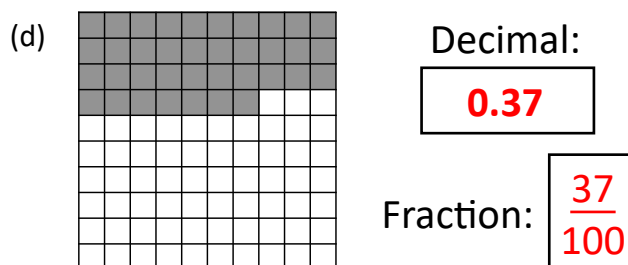
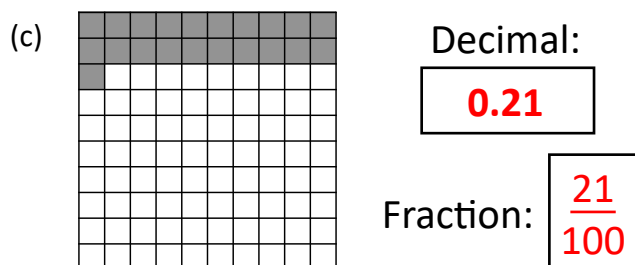
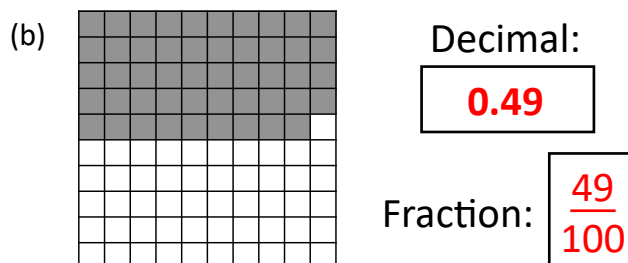
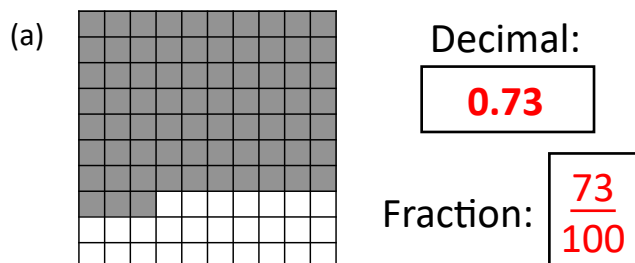
(d) $\boxed{0.1} = \frac{1}{10}$

(2) Write each of these decimals as tenths, and then write the fraction as simply as possible.

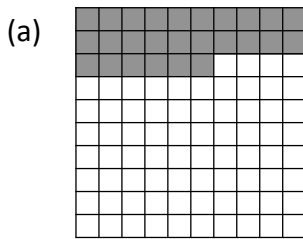
(a) $0.2 = \frac{2}{10} = \frac{1}{5}$ (b) $0.4 = \frac{4}{10} = \frac{2}{5}$ (c) $0.6 = \frac{6}{10} = \frac{3}{5}$

(d) $0.8 = \frac{8}{10} = \frac{4}{5}$ (e) $0.5 = \frac{5}{10} = \frac{1}{2}$

(3) For each of these diagrams, find the shaded area, both as a decimal and as a fraction.



(4) For each of these diagrams, give the shaded area as a decimal and a fraction out of 100, then work out the fraction as simply as possible.



Decimal:

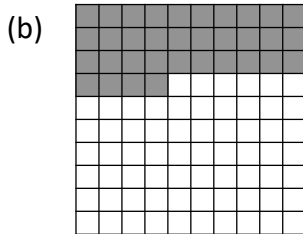
0.26

Fraction of 100:

$\frac{26}{100}$

Simplest Fraction:

$\frac{13}{50}$



Decimal:

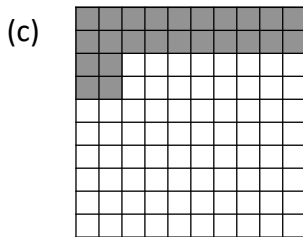
0.34

Fraction of 100:

$\frac{34}{100}$

Simplest Fraction:

$\frac{17}{50}$



Decimal:

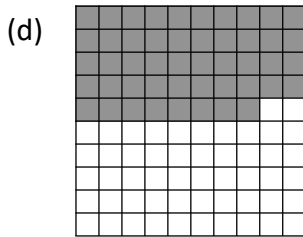
0.24

Fraction of 100:

$\frac{24}{100}$

Simplest Fraction:

$\frac{6}{25}$



Decimal:

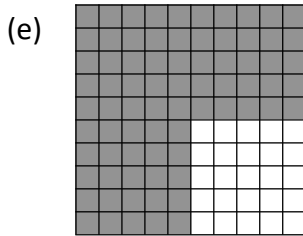
0.48

Fraction of 100:

$\frac{48}{100}$

Simplest Fraction:

$\frac{12}{25}$



Decimal:

0.75

Fraction of 100:

$\frac{75}{100}$

Simplest Fraction:

$\frac{3}{4}$

(5) Write these fractions as decimals.

(a) $\frac{1}{5} = \mathbf{0.2}$

(b) $\frac{2}{5} = \mathbf{0.4}$

(c) $\frac{3}{5} = \mathbf{0.6}$

(d) $\frac{4}{5} = \mathbf{0.8}$

(e) $\frac{1}{8} = \mathbf{0.125}$

(f) $\frac{3}{8} = \mathbf{0.375}$

(g) $\frac{5}{8} = \mathbf{0.625}$

(h) $\frac{7}{8} = \mathbf{0.875}$

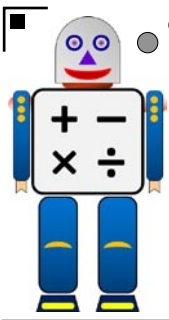
(i) $\frac{1}{20} = \mathbf{0.05}$

(j) $\frac{3}{20} = \mathbf{0.15}$

(k) $\frac{7}{20} = \mathbf{0.35}$

(l) $\frac{11}{20} = \mathbf{0.55}$





Maths Homework
this week is about:
**Digit Values and Multiplying
and Dividing by 10, 100,
1000 etc**

Answers

Date:

Teacher:

Year
6

(1) Give the value, in words, of the digit indicated by the arrow in each of these numbers.

(a) ↓ 46	Forty	(b) ↓ 387	Three hundred
(c) ↓ 642	Two	(d) ↓ 12 463	Two thousand
(e) ↓ 31 648	Thirty thousand	(f) ↓ 49 613	Nine thousand
(g) ↓ 613 825	Six hundred thousand	(h) ↓ 1 725 384	Seven hundred thousand
(i) ↓ 9 256 327	Fifty thousand	(j) ↓ 3 426 574	Three million

(2) In each number, circle the digit equal to the value asked for.

(a) Circle the digit equal to Two thousand .	12 282
(b) Circle the digit equal to Four hundred .	49 494
(c) Circle the digit equal to Eighty thousand .	88 787
(d) Circle the digit equal to Three thousand .	633 633
(e) Circle the digit equal to Four hundred thousand .	448 844
(f) Circle the digit equal to Seventy thousand .	7 776 777
(g) Circle the digit equal to Nine million .	9 999 339
(h) Circle the digit equal to Twenty thousand .	2 121 212
(i) Circle the digit equal to Three thousand .	5 533 355
(j) Circle the digit equal to Two Million .	2 222 222

(3) Give the value, in words, of each of the digits indicated by the arrows.

(a) ↓ 3.476	Four tenths	(b) ↓ 19.73	Three hundredths
(c) ↓ 26.453	Three thousandths	(d) ↓ 18.576	Seven hundredths



(4) Write the answer to each multiplication in the box.

$$(a) 56 \times 10 = \boxed{560}$$

$$(c) 103 \times 10 = \boxed{1\ 030}$$

$$(e) 3\ 030 \times 100 = \boxed{803\ 000}$$

$$(g) 129 \times 1\ 000 = \boxed{129\ 000}$$

$$(i) 200 \times 1\ 000 = \boxed{200\ 000}$$

$$(k) 9\ 203 \times 1\ 000 = \boxed{9\ 203\ 000}$$

$$(b) 29 \times 10 = \boxed{290}$$

$$(d) 421 \times 100 = \boxed{42\ 100}$$

$$(f) 5\ 902 \times 100 = \boxed{590\ 200}$$

$$(h) 390 \times 1\ 000 = \boxed{390\ 000}$$

$$(j) 1\ 683 \times 1\ 000 = \boxed{1\ 683\ 000}$$

$$(l) 586 \times 10\ 000 = \boxed{5\ 860\ 000}$$

(5) Write the answer to each division in the box.

$$(a) 420 \div 10 = \boxed{42}$$

$$(c) 2\ 900 \div 10 = \boxed{290}$$

$$(e) 8\ 300 \div 100 = \boxed{83}$$

$$(g) 3\ 000 \div 100 = \boxed{30}$$

$$(i) 2\ 640\ 000 \div 1\ 000 = \boxed{2\ 640}$$

$$(k) 126\ 000 \div 1\ 000 = \boxed{126}$$

$$(b) 1\ 380 \div 10 = \boxed{138}$$

$$(d) 1\ 700 \div 10 = \boxed{170}$$

$$(f) 12\ 600 \div 100 = \boxed{126}$$

$$(h) 19\ 000 \div 1\ 000 = \boxed{19}$$

$$(j) 1\ 130\ 000 \div 1\ 000 = \boxed{1\ 130}$$

$$(l) 330\ 000 \div 10\ 000 = \boxed{33}$$

(6) Write the missing values for these calculations in the boxes.

$$(a) 99 \times \boxed{10} = 990$$

$$(c) 1600 \div 10 = \boxed{160}$$

$$(e) \boxed{22} \times 100 = 2\ 200$$

$$(g) 6\ 000 \div 100 = \boxed{60}$$

$$(i) 11 \times \boxed{1\ 000} = 11\ 000$$

$$(k) \boxed{2\ 600} \times 100 = 260\ 000$$

$$(b) \boxed{39\ 000} \div 100 = 390$$

$$(d) 5 \times \boxed{1\ 000} = 5\ 000$$

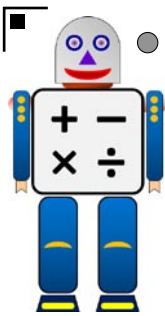
$$(f) 800 \times 1\ 000 = \boxed{800\ 000}$$

$$(h) 9\ 100 \div \boxed{10} = 910$$

$$(j) 301\ 000 \div 100 = \boxed{3\ 010}$$

$$(l) \boxed{8\ 300} \div 10 = 830$$





Maths Homework
this week is about:

Multiplying Decimals by Whole Numbers

Answers

Date:

Teacher:

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(1) Try to work out these multiplications in your head. (You can use paper if you need to).

(a)

1.2	$\times 3$	3.6
2.5		7.5
0.9		2.7
4.5		13.5

(b)

1.4	$\times 5$	7
2.6		13
1.1		5.5
3.3		16.5

(c)

0.3	$\times 7$	2.1
1.4		9.8
2.5		17.5
0.8		5.6

(2) Find the answer to each decimal multiplication.

(a)

$$\begin{array}{r} 3.9 \\ \times 8 \\ \hline 31.2 \\ \underline{7} \end{array}$$

(b)

$$\begin{array}{r} 9.6 \\ \times 4 \\ \hline 38.4 \\ \underline{2} \end{array}$$

(c)

$$\begin{array}{r} 8.2 \\ \times 3 \\ \hline 24.6 \\ \underline{4} \end{array}$$

(d)

$$\begin{array}{r} 5.8 \\ \times 7 \\ \hline 40.6 \\ \underline{5} \end{array}$$

(e)

$$\begin{array}{r} 7.5 \\ \times 9 \\ \hline 67.5 \\ \underline{4} \end{array}$$

(f)

$$\begin{array}{r} 6.3 \\ \times 5 \\ \hline 31.5 \\ \underline{1} \end{array}$$

(g)

$$\begin{array}{r} 2.7 \\ \times 6 \\ \hline 16.2 \\ \underline{4} \end{array}$$

(h)

$$\begin{array}{r} 9.9 \\ \times 2 \\ \hline 19.8 \\ \underline{1} \end{array}$$

(i)

$$\begin{array}{r} 3.6 \\ \times 7 \\ \hline 25.2 \\ \underline{4} \end{array}$$

(j)

$$\begin{array}{r} 9.2 \\ \times 6 \\ \hline 55.2 \\ \underline{1} \end{array}$$

(k)

$$\begin{array}{r} 5.4 \\ \times 9 \\ \hline 48.6 \\ \underline{3} \end{array}$$

(l)

$$\begin{array}{r} 4.9 \\ \times 8 \\ \hline 39.2 \\ \underline{7} \end{array}$$



(3) Find the answer to each decimal multiplication.

$$\begin{array}{r} (a) \quad 12.4 \\ \times \quad 5 \\ \hline 62.0 \\ \hline \end{array}$$

1 2

$$\begin{array}{r} (b) \quad 36.3 \\ \times \quad 4 \\ \hline 145.2 \\ \hline \end{array}$$

2 1

$$\begin{array}{r} (c) \quad 23.7 \\ \times \quad 6 \\ \hline 142.2 \\ \hline \end{array}$$

2 4

$$\begin{array}{r} (d) \quad 65.5 \\ \times \quad 7 \\ \hline 458.5 \\ \hline \end{array}$$

3 3

$$\begin{array}{r} (e) \quad 17.6 \\ \times \quad 9 \\ \hline 158.4 \\ \hline \end{array}$$

6 5

$$\begin{array}{r} (f) \quad 39.9 \\ \times \quad 3 \\ \hline 119.7 \\ \hline \end{array}$$

2 2

$$\begin{array}{r} (g) \quad 28.2 \\ \times \quad 8 \\ \hline 225.6 \\ \hline \end{array}$$

6 1

$$\begin{array}{r} (h) \quad 52.8 \\ \times \quad 4 \\ \hline 211.2 \\ \hline \end{array}$$

1 3

$$\begin{array}{r} (i) \quad 47.3 \\ \times \quad 7 \\ \hline 331.1 \\ \hline \end{array}$$

5 2

(4) Multiply each decimal by the two digit whole number.

$$\begin{array}{r} (a) \quad 8.7 \\ \times 32 \\ \hline 174 \\ 1 \\ 2610 \\ 2 \\ \hline 278.4 \\ \hline \end{array}$$

$$\begin{array}{r} (b) \quad 4.5 \\ \times 29 \\ \hline 405 \\ 4 \\ 900 \\ 1 \\ \hline 130.5 \\ \hline \end{array}$$

$$\begin{array}{r} (c) \quad 6.7 \\ \times 45 \\ \hline 335 \\ 3 \\ 2680 \\ 2 \\ \hline 301.5 \\ \hline \end{array}$$

1 1

$$\begin{array}{r} (d) \quad 9.3 \\ \times 26 \\ \hline 558 \\ 1 \\ 1860 \\ 1 \\ \hline 241.8 \\ \hline \end{array}$$

1 1

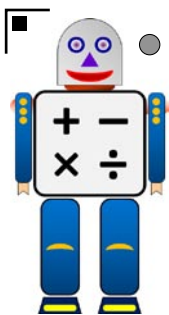
$$\begin{array}{r} (e) \quad 7.8 \\ \times 57 \\ \hline 546 \\ 5 \\ 3900 \\ 4 \\ \hline 444.6 \\ \hline \end{array}$$

1

$$\begin{array}{r} (f) \quad 8.4 \\ \times 92 \\ \hline 168 \\ 1 \\ 7560 \\ 3 \\ \hline 772.8 \\ \hline \end{array}$$

1





Maths Homework
this week is about:
**Divisions with Decimal
Answers and Rounding
Problems**

Answers

Date:

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Year
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All of the division questions here have decimal answers.
By showing your working, find the answer to each question.

(1) Find the answer if 24 is divided by 5.

$$\begin{array}{r} 4.8 \\ 5 \overline{) 24.0} \end{array}$$

Answer

4.8

(2) How many times does 8 go into 62.

$$\begin{array}{r} 7.75 \\ 8 \overline{) 62.00} \end{array}$$

Answer

7.75

(3) Divide 38 by 4.

$$\begin{array}{r} 9.5 \\ 4 \overline{) 38.0} \end{array}$$

Answer

9.5

(4) Calculate the answer if 82 is divided by 8.

$$\begin{array}{r} 10.25 \\ 8 \overline{) 82.00} \end{array}$$

Answer

10.25

(5) A pile of sand weighing 93 kg was divided into five equal piles.
Give the weight of each pile.

$$\begin{array}{r} 18.6 \\ 5 \overline{) 93.0} \end{array}$$

Answer

18.6 kg

(6) £62 was shared equally between four children.
How much did each child get?

$$\begin{array}{r} 15.5 \\ 4 \overline{) 62.0} \end{array}$$

Answer

£15.50

(7) A ribbon of length 98 cm was cut into eight equal pieces.
How long was each piece?

$$\begin{array}{r} 12.25 \\ 8 \overline{) 98.00} \end{array}$$

Answer

12.25 cm

(8) 99 litres of water was divided exactly between five barrels.
How much water was in each barrel?

$$\begin{array}{r} 19.8 \\ 5 \overline{) 99.0} \end{array}$$

Answer

19.8 litres

(9) Eight items cost £110 in total. If they each cost the same amount, how much does each item cost?

$$\begin{array}{r} 13.75 \\ 8 \overline{) 110.00} \end{array}$$

Answer

£13.75

(10) A square has an area of 94 cm². If it is split into four identical smaller squares, what is the area of each one?

$$\begin{array}{r} 23.5 \\ 4 \overline{) 94.0} \end{array}$$

Answer

23.5 cm²



In these questions you should round up the answer to the accuracy asked for.

(10) The number of visitors to a zoo one week was 4793. What is this to the nearest hundred?

Answer

4 800

(11) The number of sweets in a large jar is 168. What is this number to the nearest 10?

Answer

170

(12) A school shop made £45.26 on five days. By dividing this by five, find the mean average amount taken per day. Give your answer to the nearest penny.

$$\begin{array}{r} 9.052 \\ 5 \overline{) 45.2610} \end{array}$$

Answer

£9.05

(13) Three children had a total of £34.17. Divide this by three to give the mean average amount per person. Give your answer to the nearest 10p.

$$\begin{array}{r} 11.39 \\ 3 \overline{) 34.17} \end{array}$$

Answer

£11.40

(14) A runner ran a total of 35.58 miles over six days. Divide this number by six to give the average distance ran each day. Give the answer to the nearest mile.

$$\begin{array}{r} 5.93 \\ 6 \overline{) 35.58} \end{array}$$

Answer

6 miles

(15) Divide 30.88 by eight and give your answer to the nearest whole number.

$$\begin{array}{r} 3.86 \\ 8 \overline{) 30.88} \end{array}$$

Answer

4 (to nearest whole number)

(16) A farm animal ate 34.37 kg of food in seven days. Divide this by seven to find the average weight of food eaten per day. Give your answer to the nearest kilogram.

$$\begin{array}{r} 4.91 \\ 7 \overline{) 34.37} \end{array}$$

Answer

5 kg

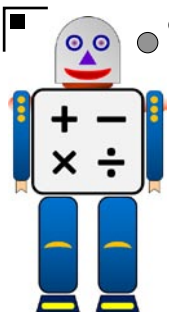
(17) Divide 77.67 by nine and give your answer to one decimal place.

$$\begin{array}{r} 8.63 \\ 9 \overline{) 77.67} \end{array}$$

Answer

8.6 (to one DP)





Maths Homework
this week is about:
**Fraction, Decimal and
Percentage
Equivalents**

Answers

Date:

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(1) Give each of these percentages as a decimal.

(a) **46 %** = **0.46**

(c) **17 %** = **0.17**

(e) **78 %** = **0.78**

(g) **30 %** = **0.3**

(i) **9 %** = **0.09**

(b) **37 %** = **0.37**

(d) **62 %** = **0.62**

(f) **99 %** = **0.99**

(h) **70 %** = **0.7**

(j) **3 %** = **0.03**

(2) Give each of these decimals as a percentage.

(a) **0.56** = **56 %**

(c) **0.88** = **88 %**

(e) **0.4** = **40 %**

(g) **0.5** = **50 %**

(i) **0.04** = **4 %**

(b) **0.19** = **19 %**

(d) **0.93** = **93 %**

(f) **0.8** = **80 %**

(h) **0.01** = **1 %**

(j) **0.06** = **6 %**

(3) Give each of these fractions as a percentage.

(a) $\frac{13}{100}$ = **13 %**

(c) $\frac{91}{100}$ = **91 %**

(e) $\frac{19}{100}$ = **19 %**

(g) $\frac{1}{100}$ = **1 %**

(i) $\frac{7}{100}$ = **7 %**

(b) $\frac{49}{100}$ = **49 %**

(d) $\frac{21}{100}$ = **21 %**

(f) $\frac{37}{100}$ = **37 %**

(h) $\frac{9}{100}$ = **9 %**

(j) $\frac{71}{100}$ = **71 %**

(4) Give each of these percentages as a fraction.

(a) **81 %** = $\frac{81}{100}$

(c) **17 %** = $\frac{17}{100}$

(e) **31 %** = $\frac{31}{100}$

(g) **99 %** = $\frac{99}{100}$

(i) **3 %** = $\frac{3}{100}$

(b) **77 %** = $\frac{77}{100}$

(d) **23 %** = $\frac{23}{100}$

(f) **11 %** = $\frac{11}{100}$

(h) **59 %** = $\frac{59}{100}$

(j) **41 %** = $\frac{41}{100}$



(5) Fill in the missing values in this table. Give fractions in the simplest form.

	Fraction	Decimal	Percentage
(a)	$\frac{1}{10}$	0.1	10 %
(b)	$\frac{2}{5}$	0.4	40 %
(c)	$\frac{7}{10}$	0.7	70 %
(d)	$\frac{1}{4}$	0.25	25 %
(e)	$\frac{3}{4}$	0.75	75 %
(f)	$\frac{4}{5}$	0.8	80 %
(g)	$\frac{1}{8}$	0.125	12.5 %
(h)	$\frac{1}{40}$	0.025	2.5 %
(i)	$\frac{7}{10}$	0.7	70 %
(j)	$\frac{3}{5}$	0.6	60 %
(k)	$\frac{1}{5}$	0.2	20 %
(l)	$\frac{16}{25}$	0.64	64 %
(m)	$\frac{22}{25}$	0.88	88 %
(n)	$\frac{7}{25}$	0.28	28 %
(o)	$\frac{3}{25}$	0.12	12 %
(p)	$\frac{5}{8}$	0.625	62.5 %
(q)	$\frac{7}{8}$	0.875	87.5 %
(r)	$\frac{9}{10}$	0.9	90 %
(s)	$\frac{24}{25}$	0.96	96 %
(t)	$\frac{3}{50}$	0.06	6 %

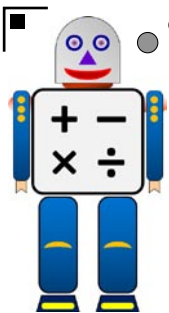
(6) (a) A pupil scored 18 out of 20 in a test.
What is this as a percentage?

90 %

(b) Another pupil scored 13 out of 20 in the test.
What is this as a percentage?

65 %





Maths Homework
this week is about:

Ratio Problems

Answers

Date:

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(1) This recipe makes 10 cup cakes. Give the quantities for the number of cakes below:

(a) 20 cakes

(b) 15 cakes

(c) 35 cakes

Flour	200 g	400 g	300 g	700 g
Butter	180 g	360 g	270 g	630 g
Sugar	160 g	320 g	240 g	560 g
Eggs	4	8	6	14

(2) Here is a recipe to make 25 lemon shortbread biscuits.

Give the quantities for the number of biscuits below:

(a) 50 biscuits

(b) 5 biscuits

(c) 80 biscuits

Flour	450g	900 g	90 g	1 440 g
Butter	300g	600 g	60 g	960 g
Sugar	150g	300 g	30 g	480 g
Lemon essence	10g	20 g	2 g	32 g

(3) The ratio for the amounts of money in each pair of boxes is given.

Find the missing amount of money in each pair of boxes.

(a) Ratio
1 : 3

£7 : £21

(b) Ratio
1 : 5

£9 : £45

(c) Ratio
1 : 2

£4.50 : £9

(d) Ratio
1 : 6

£2.50 : £15

(e) Ratio
1 : 7

£1.50 : £10.50

(f) Ratio
1 : 9

£8 : £72

(g) Ratio
1 : 12

£9 : £108

(h) Ratio
1 : 8

£1.25 : £10

(i) Ratio
1 : 4

£8.50 : £34

(j) Ratio
1 : 11

£1.11 : £12.21

(k) Ratio
1 : 10

£9.61 : £96.10

(l) Ratio
1 : 7

£0.40 : £2.80



- (4) Helen and Mark have ages in the ratio 1 : 5.
If Helen is 7 years old, how old is Mark?

$$7 \times 5 = 35$$

35 years old

- (5) Kim and Ali have ages in the ratio 1 : 3.
If Ali is 27 years old, how old is Kim?

$$27 \div 3 = 9$$

9 years old

- (6) The ratio of water to orange juice in a drink is 12 : 1.
(a) If you use 120 ml of water, how much orange juice do you need?

$$120 \div 12 = 10$$

10 ml of orange juice

- (b) If you use 15 ml of orange juice, how much water must you add to this?

$$15 \times 12 = 180$$

180 ml of water

- (7) The ratio of oak trees to ash trees in a wood is 1 : 6.
If there are 72 ash trees, how many oak trees are there?

$$72 \div 6 = 12$$

12 oak trees

- (8) The ratio of staff to pupils in a small school is 1 : 5.
If there are 17 members of staff, how many pupils are there?

$$17 \times 5 = 85$$

85 pupils

- (9) The ratio of cows to sheep on a farm is 1 : 16.
There are 112 sheep. How many cows are there?

$$112 \div 16 = 7$$

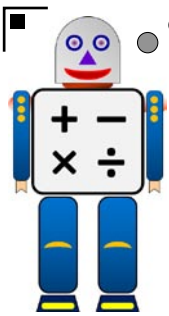
7 cows

- (10) The ratio of books to CDs in a library is 9 : 2.
If there are 2700 books, how many CDs are there?

$$2700 \div 9 = 300$$

$$300 \times 2 = 600$$

600 CDs



Maths Homework
this week is about:

Percentages

Answers

Date:

Teacher:

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(1) (a) Find 10% of 240

$$240 \div 10 = 24$$

24

(c) Find 20% of 150

$$10\% \text{ is } 150 \div 10 = 15$$

$$20\% \text{ is } 15 \times 2 = 30$$

30

(e) Find 40% of £70

$$10\% \text{ is } 70 \div 10 = 7$$

$$40\% \text{ is } 7 \times 4 = 28$$

£28

(b) Find 10% of 143

$$143 \div 10 = 14.3$$

14.3

(d) Find 20% of 44

$$10\% \text{ is } 44 \div 10 = 4.4$$

$$20\% \text{ is } 4.4 \times 2 = 8.8$$

8.8

(f) Find 60% of 55m.

$$10\% \text{ is } 55 \div 10 = 5.5$$

$$60\% \text{ is } 5.5 \times 6 = 33$$

33 m

(2)



For each of the following prices, find 15%,
and then subtract this to find the sale value.

(a)

Price £50	10% is £5	Sale Price 50 - 7.50
	5% is £2.50	
	15% is £7.50	
	£42.50	

(b)

Price £80	10% is £8	Sale Price 80 - 12
	5% is £4	
	15% is £12	
	£68	

(c)

Price £12	10% is £1.20	Sale Price 12 - 1.80
	5% is £0.60	
	15% is £1.80	
	£10.20	

(d)

Price £160	10% is £16	Sale Price 160 - 24
	5% is £8	
	15% is £24	
	£136	

(e)

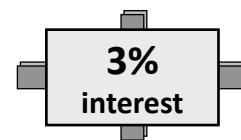
Price £36	10% is £3.60	Sale Price 36 - 5.40
	5% is £1.80	
	15% is £5.40	
	£30.60	

(f)

Price £14	10% is £1.40	Sale Price 14 - 2.10
	5% is £0.70	
	15% is £2.10	
	£11.90	



- (3) A bank offers 3% interest per year on savings.
For each of these values, find 3%, and then add this to the amount in the account to find the total in the account after the interest has been added.



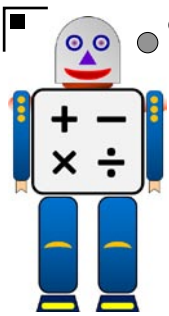
	Amount in account	3% interest	Total after interest is added
(a)	£200	1% is <u>£2</u> 3% is <u>£6</u>	200 + 6 £206
(b)	£500	1% is <u>£5</u> 3% is <u>£15</u>	500 + 15 £515
(c)	£450	1% is <u>£4.50</u> 3% is <u>£13.50</u>	450 + 13.50 £463.50
(d)	£75	1% is <u>£0.75</u> 3% is <u>£2.25</u>	75 + 2.25 £77.25
(e)	£3000	1% is <u>£30</u> 3% is <u>£90</u>	3000 + 90 £3090
(f)	£6750	1% is <u>£67.50</u> 3% is <u>£202.50</u>	6750 + 202.50 £6952.50

- (4) To find 17.5%, we can find 10% + 5% + 2.5%.

Find 17.5% of each of these amounts.

(a)	40	(b)	88	(c)	180	(d)	900
10% is	<u>4</u>	10% is	<u>8.8</u>	10% is	<u>18</u>	10% is	<u>90</u>
5% is	<u>2</u>	5% is	<u>4.4</u>	5% is	<u>9</u>	5% is	<u>45</u>
2.5% is	<u>1</u>	2.5% is	<u>2.2</u>	2.5% is	<u>4.5</u>	2.5% is	<u>22.5</u>
17.5% is	<u>7</u>	17.5% is	<u>15.4</u>	17.5% is	<u>31.5</u>	17.5% is	<u>157.5</u>





Maths Homework
this week is about:

Similar Shapes

Answers

Date:

Teacher:

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- (1) Each pair of rectangles is similar. For each pair, find the scale factor for the lengths, and then find the missing length, indicated by the box. (The diagrams are not drawn to scale).

(a)

Scale Factor

2

(b)

Scale Factor

4

(c)

Scale Factor

3

(d)

Scale Factor

1.5

- (2) These pairs of triangles are similar. Find the scale factor and missing length, indicated by the box, for each one.

(a)

Scale Factor

3

(b)

Scale Factor

4

(c)

Scale Factor

1.5

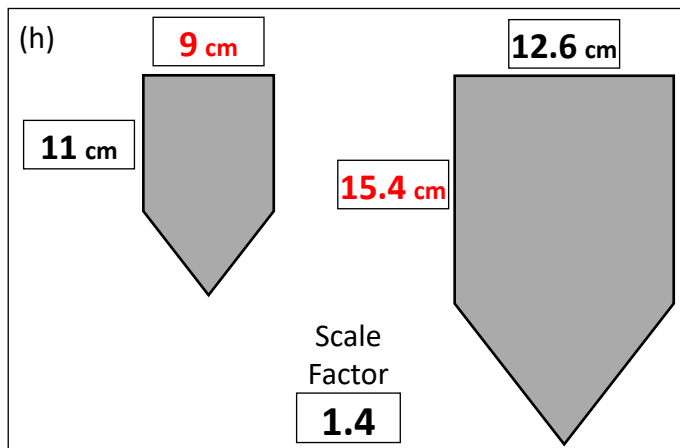
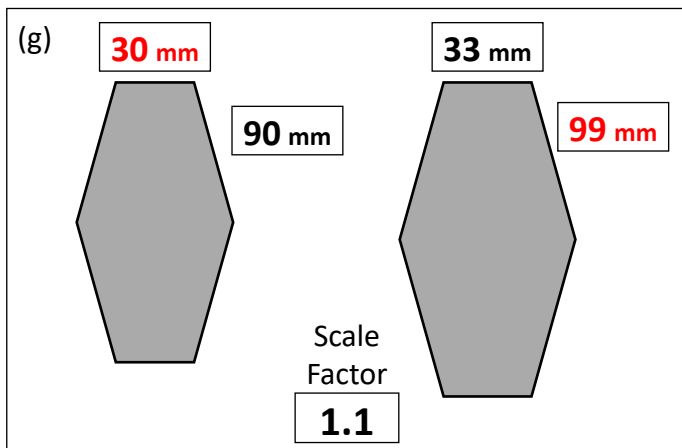
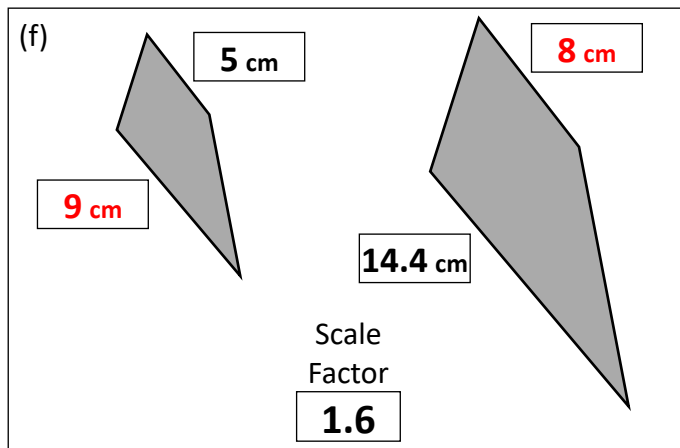
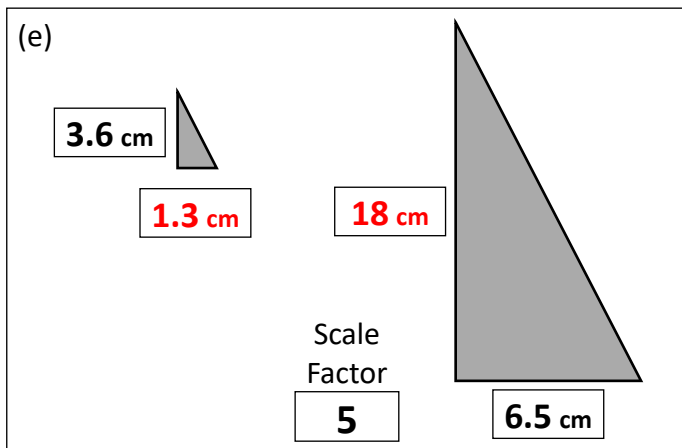
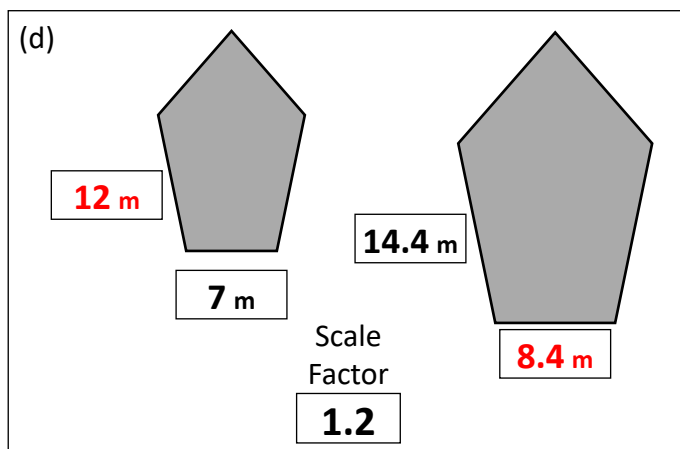
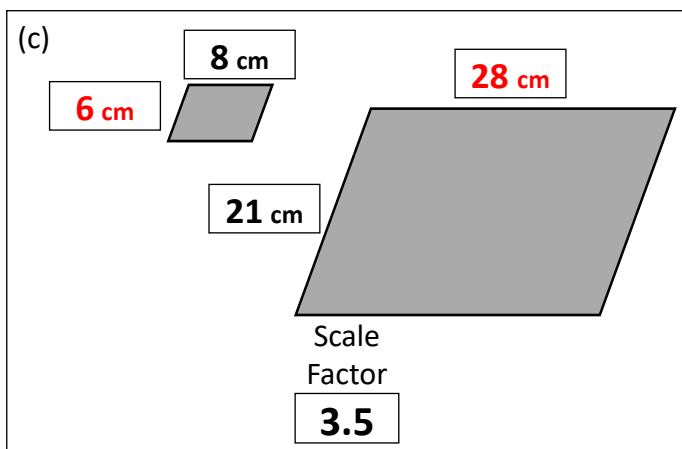
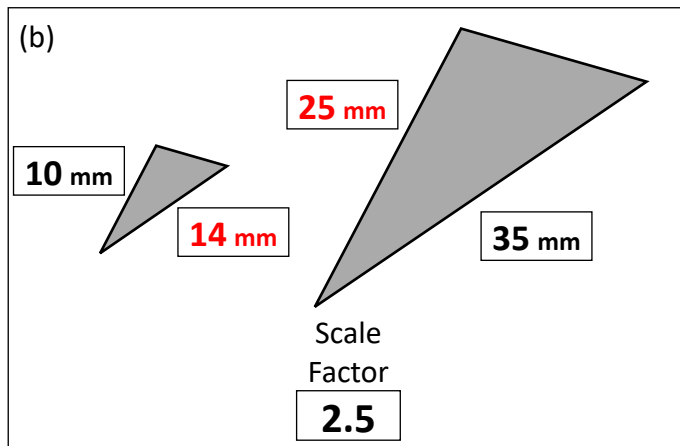
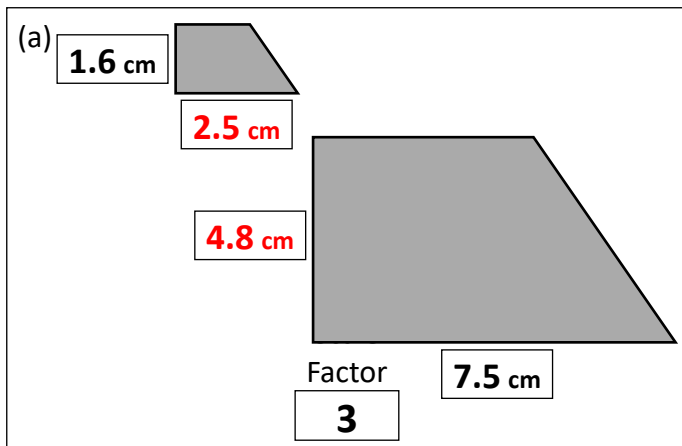
(d)

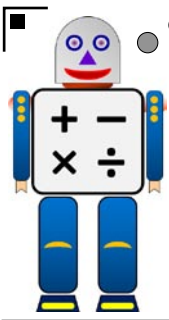
Scale Factor

5



(3) Use the given scale factor to find the missing side lengths in each pair of similar shapes.
(The diagrams are not drawn to scale).





Maths Homework
this week is about:

Unequal Sharing

Answers

Date:

Teacher:

Year

6

- (1) A running track is 400m long. A runner tripped up $\frac{2}{5}$ of the way around the track. How far had the runner ran when they tripped up?

$$400 \div 5 = 80$$

$$80 \times 2 = 160$$

Distance: **160 m**

- (2) A box contained 36 sweets. Sue ate $\frac{5}{9}$ of the sweets and Joe ate the rest.

How many sweets did they each eat?

$$36 \div 9 = 4$$

$$\text{Sue: } 5 \times 4 = 20$$

Sue: **20**

$$\text{Joe: } 4 \times 4 = 16$$

Joe: **16**

- (3) Sasha and Kai share £50. If Sasha gets £6 more than Kai, how much do they each get?

$$50 - 6 = 44$$

$$\text{Kai gets } \pounds 22$$

Kai: **22**

$$44 \div 2 = 22$$

$$\text{Sasha gets } \pounds 22 + 6$$

Sasha: **28**

- (4) The total area of a field is 24 m². The area planted with carrots is 9 m² more than the area planted with potatoes. Find the area for each crop.

$$24 - 9 = 15$$

$$\text{Potatoes: } 7.5$$

Potatoes: **7.5 m²**

$$15 \div 2 = 7.5$$

$$\text{Carrots: } 7.5 + 9$$

Carrots: **16.5 m²**

- (5) The total height of an elm tree and a birch tree is 18 m. The elm tree is 4 m taller than the birch tree. Find the height of both trees.

$$18 - 4 = 14$$

$$\text{Birch: } 7$$

Birch: **7 m**

$$14 \div 2 = 7$$

$$\text{Elm: } 7 + 4$$

Elm: **11 m**

- (6) Karen spent 70 minutes watching TV. She watched a drama and a comedy. If the drama lasted for $\frac{3}{7}$ of the time, give the length of both programmes.

$$70 \div 7 = 10$$

$$\text{Drama: } 3 \times 10 = 30$$

Drama: **30**

$$\text{Comedy: } 4 \times 10 = 40$$

Comedy: **40**



- (7) A parent and a child paid a total of £30 to visit a museum. The child price was £8 cheaper than the parent price. Find the price for each.

$$30 - 8 = 22$$

Child: 11

Child: **£11**

$$22 \div 2 = 11$$

Parent: 11 + 8

Parent: **£19**

- (8) Sheba ate $\frac{2}{11}$ of the dog biscuits from her bowl. She ate 6 biscuits.

How many biscuits were in the bowl at the beginning?

$\frac{2}{11}$ is 6 biscuits, so

$\frac{1}{11}$ is 3 biscuits

Therefore $\frac{11}{11} = 11 \times 3 = 33$ biscuits

Number of biscuits: **33**

- (9) A field has an area of 56 m². $\frac{3}{8}$ of the field has been planted with oats and the rest has been planted with wheat.

What area of the field has been planted with each?

$$56 \div 8 = 7$$

Oats: 7 × 3

Oats: **21 m²**

Wheat: 7 × 5

Wheat: **35 m²**

- (10) Two lighthouses have a total height of 22 m. The tall lighthouse is 5 m taller than the short lighthouse. Find the height of each.

$$22 - 5 = 17$$

Short lighthouse: 8.5

Short lighthouse: **8.5 m**

$$17 \div 2 = 8.5$$

Tall lighthouse: 8.5 + 5

Tall lighthouse: **13.5 m**

- (11) A red money box and a yellow money box have a total of £12.50 in them. If the red money box has £1.50 more than the yellow money box, find out how much money is in each box.

$$12.50 - 1.50 = 11$$

Yellow box: 5.50

Yellow box: **£5.50**

$$11 \div 2 = 5.50$$

Red box: 5.50 + 1.50

Red box: **£7.00**

- (12) Paul and Bob built a wall. There are a total of 27 rows of bricks in the wall. If Paul built 3 more rows than Bob, how many rows did each build?

$$27 - 3 = 24$$

Bob: 12

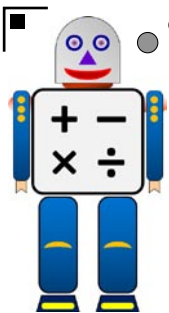
Bob: **12**

$$24 \div 2 = 12$$

Paul: 12 + 3

Paul: **15**





Maths Homework
this week is about:

Simple Formulae

Answers

Date:

Teacher:

Year

6

(1) Find the value of $3m + 8$ when:

(a) $m = 2$

$$3 \times 2 + 8 = 6 + 8 = 14$$

(b) $m = 5$

$$3 \times 5 + 8 = 15 + 8 = 23$$

(c) $m = 10$

$$3 \times 10 + 8 = 30 + 8 = 38$$

(d) $m = 20$

$$3 \times 20 + 8 = 60 + 8 = 68$$

(e) $m = 30$

$$3 \times 30 + 8 = 90 + 8 = 98$$

(2) Find the value of $7t + 9$ when:

(a) $t = 3$

$$7 \times 3 + 9 = 21 + 9 = 30$$

(b) $t = 6$

$$7 \times 6 + 9 = 42 + 9 = 51$$

(c) $t = 8$

$$7 \times 8 + 9 = 56 + 9 = 65$$

(d) $t = 16$

$$7 \times 16 + 9 = 112 + 9 = 121$$

(e) $t = 20$

$$7 \times 20 + 9 = 140 + 9 = 149$$

(3) Find the value of $12r + 11$ when:

(a) $r = 1$

$$12 \times 1 + 11 = 12 + 11 = 23$$

(b) $r = 0.5$

$$12 \times 0.5 + 11 = 6 + 11 = 17$$

(c) $r = 0.2$

$$12 \times 0.2 + 11 = 2.4 + 11 = 13.4$$

(d) $r = 0.7$

$$12 \times 0.7 + 11 = 8.4 + 11 = 19.4$$

(e) $r = 2$

$$12 \times 2 + 11 = 24 + 11 = 35$$



(4) Find the value of **$5e - 4$** when:

(a) $e = 5$ $5 \times 5 - 4 = 25 - 4 =$ **21**

(b) $e = 6$ $5 \times 6 - 4 = 30 - 4 =$ **26**

(c) $e = 7$ $5 \times 7 - 4 = 35 - 4 =$ **31**

(d) $e = 10$ $5 \times 10 - 4 = 50 - 4 =$ **46**

(e) $e = 20$ $5 \times 20 - 4 = 100 - 4 =$ **96**

(5) Find the value of **$9u - 7$** when:

(a) $u = 3$ $9 \times 3 - 7 = 27 - 7 =$ **20**

(b) $u = 6$ $9 \times 6 - 7 = 54 - 7 =$ **47**

(c) $u = 9$ $9 \times 9 - 7 = 81 - 7 =$ **74**

(d) $u = 12$ $9 \times 12 - 7 = 108 - 7 =$ **101**

(e) $u = 24$ $9 \times 24 - 7 = 216 - 7 =$ **209**

(6) Find the value of **$6w - 14$** when:

(a) $w = 1$ $6 \times 1 - 14 = 6 - 14 =$ **-8**

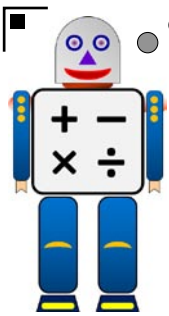
(b) $w = 2$ $6 \times 2 - 14 = 12 - 14 =$ **-2**

(c) $w = 5$ $6 \times 5 - 14 = 30 - 14 =$ **16**

(d) $w = 0.5$ $6 \times 0.5 - 14 = 3 - 14 =$ **-11**

(e) $w = 2.5$ $6 \times 2.5 - 14 = 15 - 14 =$ **1**





Maths Homework
this week is about:

Number Sequences

Answers

Date:

Teacher:

Year
6

- (1) Find the missing number in each of these number sequences and give the rule to get from one term to the next.

(a)	7	10	13	16	19	Rule: <u> Add 3 </u>
(b)	1	9	17	25	33	Rule: <u> Add 8 </u>
(c)	61	56	51	46	41	Rule: <u> Take 5 </u>
(d)	32	39	46	53	60	Rule: <u> Add 7 </u>
(e)	13	9	5	1	-3	Rule: <u> Take 4 </u>
(f)	0	12	24	36	48	Rule: <u> Add 12 </u>
(g)	27	16	5	-6	-17	Rule: <u> Take 11 </u>
(h)	-5	11	27	43	59	Rule: <u> Add 16 </u>

- (2) The first number and term to term rule for each sequence is given below. Find the next four terms in each sequence.

(a)	Rule: Add 9	7	16	25	34	43
(b)	Rule: Take 6	21	15	9	3	-3
(c)	Rule: Add 15	2	17	32	47	62
(d)	Rule: Take 13	54	41	28	15	2
(e)	Rule: Take 7	8	1	-6	-13	-20
(f)	Rule: Add 12	5	17	29	41	53
(g)	Rule: Add 21	-10	11	32	53	74
(h)	Rule: Take 21	100	79	58	37	16



(3) Find the first five terms of the sequence with the rule

$$3n + 1$$

n	1	2	3	4	5
$3n + 1$	4	7	10	13	16

(4) Find the first five terms of the sequence with the rule

$$4n + 6$$

n	1	2	3	4	5
$4n + 6$	10	14	18	22	26

(5) Find the first five terms of the sequence with the rule

$$8n - 3$$

n	1	2	3	4	5
$8n - 3$	5	13	21	29	37

(6) Find the first five terms of the sequence with the rule

$$12n - 9$$

n	1	2	3	4	5
$12n - 9$	3	15	27	39	51

(7) Give the n^{th} term rule for each of these sequences.

(a)

9	11	13	15	17
---	----	----	----	----

n^{th} term: $2n + 7$

(b)

2	6	10	14	18
---	---	----	----	----

n^{th} term: $4n - 2$

(c)

9	17	25	33	41
---	----	----	----	----

n^{th} term: $8n + 1$

(d)

3	12	21	30	39
---	----	----	----	----

n^{th} term: $9n - 6$

(e)

15	20	25	30	35
----	----	----	----	----

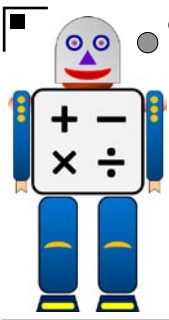
n^{th} term: $5n + 10$

(f)

1	8	15	22	29
---	---	----	----	----

n^{th} term: $7n - 6$





Maths Homework
this week is about:

Missing Number Problems

Answers

Date:

Teacher:

Year
6

- (1) In each set of boxes, the number in the top box is found by adding the two numbers in the bottom boxes. Find the missing number in each set of boxes.

(a) $\begin{array}{|c|} \hline 36 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 15 & 21 \\ \hline \end{array}$

(b) $\begin{array}{|c|} \hline 63 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 23 & 41 \\ \hline \end{array}$

(c) $\begin{array}{|c|} \hline 60 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 29 & 31 \\ \hline \end{array}$

(d) $\begin{array}{|c|} \hline 104 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 48 & 56 \\ \hline \end{array}$

(e) $\begin{array}{|c|} \hline 171 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 98 & 73 \\ \hline \end{array}$

(f) $\begin{array}{|c|} \hline 231 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 126 & 105 \\ \hline \end{array}$

(g) $\begin{array}{|c|} \hline 400 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 213 & 187 \\ \hline \end{array}$

(h) $\begin{array}{|c|} \hline 475 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 192 & 283 \\ \hline \end{array}$

(i) $\begin{array}{|c|} \hline 548 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 222 & 326 \\ \hline \end{array}$

(j) $\begin{array}{|c|} \hline 999 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 272 & 727 \\ \hline \end{array}$

(k) $\begin{array}{|c|} \hline 951 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 642 & 309 \\ \hline \end{array}$

(l) $\begin{array}{|c|} \hline 783 \\ \hline \end{array} = \begin{array}{|c|c|} \hline 461 & 322 \\ \hline \end{array}$

- (2) Find the missing number in each of the following calculations.

(a) $8 \times 9 = 72$

(c) $76 - 28 = 48$

(e) $108 \div 9 = 12$

(g) $93 + 76 = 169$

(i) $7 \times 15 = 105$

(b) $207 + 231 = 438$

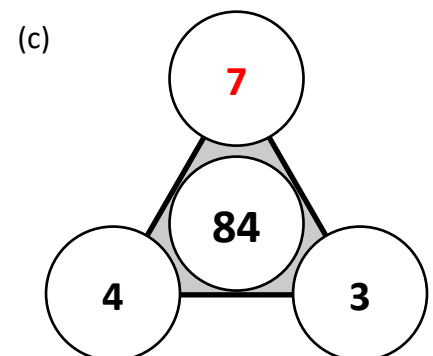
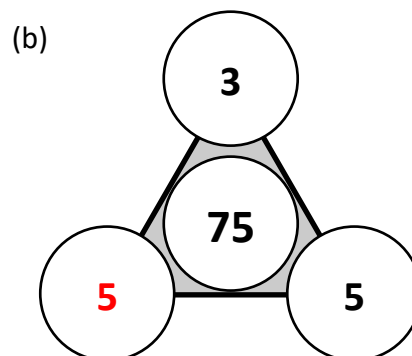
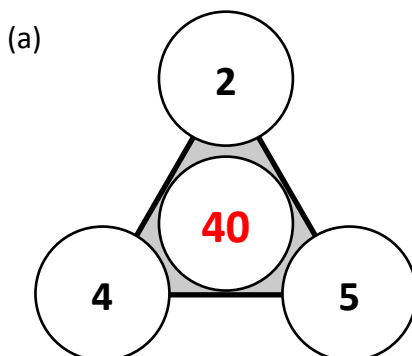
(d) $216 \div 24 = 9$

(f) $191 - 63 = 128$

(h) $280 \div 35 = 8$

(j) $942 - 429 = 513$

- (3) The three numbers at the corners of each triangle are multiplied to give the number in the centre. Find the missing number in each question.



(4) Here is a missing number problem.

$$3 \times \square + 4 = 19$$

Instead of the box, we could use a letter to stand for the missing number. For example:

$$3 \times t + 4 = 19$$

Use the letter **t** instead of the box to write each of the following missing number problems, and then for each one, find the value of **t**.

(a) $5 \times \square = 45$

$$\begin{aligned} 5 \times t &= 45 \\ t &= 45 \div 5 \\ t &= 9 \end{aligned}$$

(b) $7 \times \square = 77$

$$\begin{aligned} 7 \times t &= 77 \\ t &= 77 \div 7 \\ t &= 11 \end{aligned}$$

(c) $2 \times \square + 12 = 26$

$$\begin{aligned} 2 \times t + 12 &= 26 \\ 2 \times t &= 14 \\ t &= 14 \div 2 \\ t &= 7 \end{aligned}$$

(d) $3 \times \square + 11 = 35$

$$\begin{aligned} 3 \times t + 11 &= 35 \\ 3 \times t &= 24 \\ t &= 24 \div 3 \\ t &= 8 \end{aligned}$$

(e) $5 \times \square - 9 = 51$

$$\begin{aligned} 5 \times t - 9 &= 51 \\ 5 \times t &= 60 \\ t &= 60 \div 5 \\ t &= 12 \end{aligned}$$

(f) $4 \times \square - 7 = 13$

$$\begin{aligned} 4 \times t - 7 &= 13 \\ 4 \times t &= 20 \\ t &= 20 \div 4 \\ t &= 5 \end{aligned}$$

(g) $11 \times \square + 6 = 105$

$$\begin{aligned} 11 \times t + 6 &= 105 \\ 11 \times t &= 99 \\ t &= 99 \div 11 \\ t &= 9 \end{aligned}$$

(h) $12 \times \square - 10 = 74$

$$\begin{aligned} 12 \times t - 10 &= 74 \\ 12 \times t &= 84 \\ t &= 84 \div 12 \\ t &= 7 \end{aligned}$$

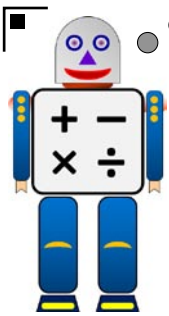
(i) $9 \times \square + 6 = 114$

$$\begin{aligned} 9 \times t + 6 &= 114 \\ 9 \times t &= 108 \\ t &= 108 \div 9 \\ t &= 12 \end{aligned}$$

(j) $14 \times \square - 8 = 62$

$$\begin{aligned} 14 \times t - 8 &= 62 \\ 14 \times t &= 70 \\ t &= 70 \div 14 \\ t &= 5 \end{aligned}$$





Maths Homework
this week is about:
**Equations with Two
Unknowns, and Two
Variable Combinations**

Answers

Date:

Teacher:

Year
6

(1) Circle the pair of values which work in each question.

(a) $3 \times \text{Hexagon} + 2 \times \text{Triangle} = 16$

Hexagon = 2 Triangle = 4	Hexagon = 5 Triangle = 1	Hexagon = 4 Triangle = 2	Hexagon = 1 Triangle = 5
-----------------------------	-----------------------------	-------------------------------------	-----------------------------

(b) $4 \times \text{Hexagon} + 3 \times \text{Triangle} = 29$

Hexagon = 7 Triangle = 1	Hexagon = 1 Triangle = 7	Hexagon = 3 Triangle = 5	Hexagon = 5 Triangle = 3
-----------------------------	-----------------------------	-----------------------------	-------------------------------------

(c) $7 \times \text{Hexagon} - 5 \times \text{Triangle} = 32$

Hexagon = 3 Triangle = 2	Hexagon = 6 Triangle = 2	Hexagon = 2 Triangle = 3	Hexagon = 2 Triangle = 6
-----------------------------	-------------------------------------	-----------------------------	-----------------------------

(d) $6 \times \text{Hexagon} + 2 \times \text{Triangle} = 44$

Hexagon = 6 Triangle = 2	Hexagon = 2 Triangle = 6	Hexagon = 7 Triangle = 1	Hexagon = 1 Triangle = 7
-----------------------------	-----------------------------	-------------------------------------	-----------------------------

(e) $9 \times \text{Hexagon} - 7 \times \text{Triangle} = 15$

Hexagon = 4 Triangle = 3	Hexagon = 7 Triangle = 5	Hexagon = 5 Triangle = 7	Hexagon = 3 Triangle = 1
-------------------------------------	-----------------------------	-----------------------------	-----------------------------

(f) $8 \times \text{Hexagon} - 4 \times \text{Triangle} = 68$

Hexagon = 9 Triangle = 4	Hexagon = 4 Triangle = 9	Hexagon = 3 Triangle = 10	Hexagon = 10 Triangle = 3
-----------------------------	-----------------------------	------------------------------	--------------------------------------

(2) Circle the pair of values which work in each equation.

(a) $6 \times a + 2 \times b = 28$

a = 4 b = 1	a = 3 b = 5	a = 1 b = 4	a = 5 b = 3
----------------	------------------------	----------------	----------------

(b) $7 \times a - 4 \times b = 6$

a = 2 b = 2	a = 3 b = 3	a = 1 b = 1	a = 3 b = 5
------------------------	----------------	----------------	----------------

(c) $4 \times a + 9 \times b = 42$

a = 4 b = 1	a = 2 b = 4	a = 6 b = 2	a = 2 b = 6
----------------	----------------	------------------------	----------------

(d) $8 \times a - 5 \times b = 46$

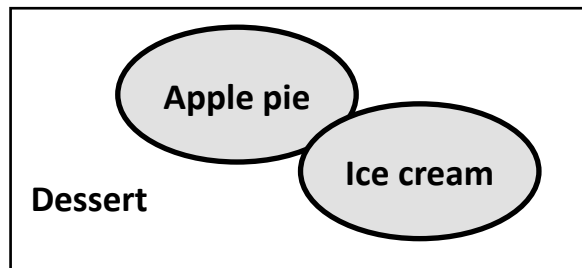
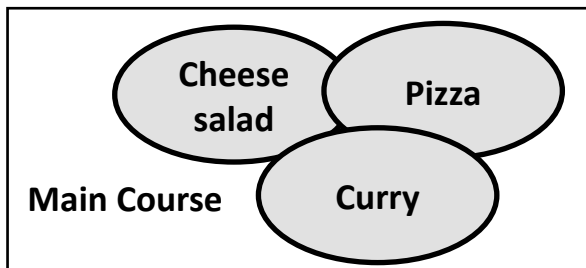
a = 10 b = 12	a = 6 b = 5	a = 5 b = 6	a = 12 b = 10
------------------	----------------	----------------	--------------------------

(e) $6 \times a + 7 \times b = 62$

a = 1 b = 8	a = 8 b = 1	a = 10 b = 2	a = 2 b = 10
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(3) A school canteen offered the following menu choices one day.



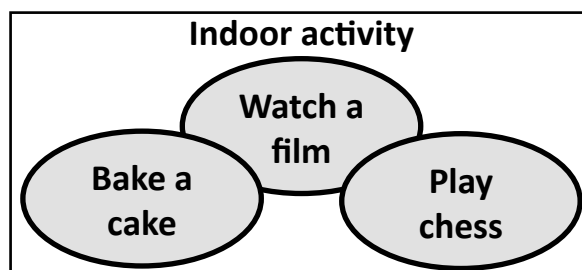
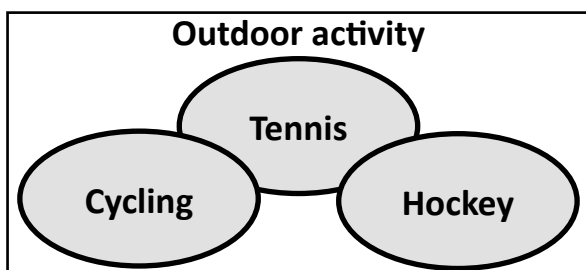
A pupil is allowed one **main course** and one **dessert**.

List, in the box on the right, all the possible combinations they could have.

- Cheese salad & Apple pie
- Cheese salad & Ice cream
- Pizza & Apple pie
- Pizza & Ice cream
- Curry & Apple pie
- Curry & Ice cream

(4) A school activity day offers pupils a choice of one **outdoor activity** followed by one **indoor activity**.

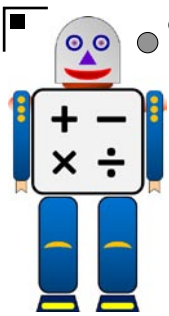
The following options are available:



List, in the box on the right, all the possible combinations of activities that a pupil could do.

- Cycling & Bake a cake
- Cycling & Watch a film
- Cycling & Play chess
- Tennis & Bake a cake
- Tennis & Watch a film
- Tennis & Play chess
- Hockey & Bake a cake
- Hockey & Watch a film
- Hockey & Play chess





Maths Homework
this week is about:

Calculating and Converting Units of Length

Answers

Date:

Teacher:

Year
6

(1) Use the conversion fact below to find the missing approximate values in the following table.

	Miles	Kilometres
(a)	15	24
(b)	25	40
(c)	40	64
(d)	10	16
(e)	0.5	0.8
(f)	2.5	4
(g)	7.5	12
(h)	100	160
(i)	5.5	8.8
(j)	27.5	44

5 miles
is approximately
8 kilometres

(2) Use these conversion facts to find the missing values in the following questions.

- | | |
|--------------------|---------------------|
| (a) 3 cm = 30 mm | (k) 16 m = 1 600 cm |
| (b) 7 cm = 70 mm | (l) 0.5 m = 50 cm |
| (c) 12 cm = 120 mm | (m) 0.36 m = 36 cm |
| (d) 26 cm = 260 mm | (n) 0.04 m = 4 cm |
| (e) 8.3 cm = 83 mm | (o) 270 cm = 2.7 m |
| (f) 7.6 cm = 76 mm | (p) 48 cm = 0.48 m |
| (g) 0.4 cm = 4 mm | (q) 8000 m = 8 km |
| (h) 6 mm = 60 cm | (r) 560 m = 0.56 km |
| (i) 58 mm = 5.8 cm | (s) 7 km = 7 000 m |
| (j) 8 m = 800 cm | (t) 0.6 km = 600 m |

10 mm = 1 cm
100 cm = 1 m
1000 m = 1 km



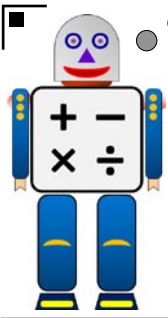
- (3) Say which would be the best metric unit to measure each of the items in the table below. (Choose from mm, cm, m, km).

	Item	Metric Unit
(a)	Length of a pencil	cm
(b)	Distance from the earth to the moon	km
(c)	Length of a room	m
(d)	Thickness of a matchstick	mm
(e)	Distance between two towns	km
(f)	Width of a book	cm
(g)	Length of a bus	m
(h)	Distance around a running track	m
(i)	Thickness of an exercise book	mm
(j)	Length of a computer keyboard	cm

- (4) This set of zoo direction signposts have accidentally had the distances to various animals given in km, cm, or mm. Convert each distance into metres.

(a)	Lions	2 500 cm	Lions	25	m
(b)	Tigers	12 500 cm	Tigers	125	m
(c)	Leopards	40 000 mm	Leopards	40	m
(d)	Cheetahs	320 000 mm	Cheetahs	320	m
(e)	Jaguars	8 200 cm	Jaguars	82	m
(f)	Elephants	620 000 mm	Elephants	620	m
(g)	Giraffes	0.5 km	Giraffes	500	m
(h)	Penguins	7 600 cm	Penguins	76	m
(i)	Sea Lions	0.095 km	Sea Lions	95	m
(j)	Gorillas	440 000 mm	Gorillas	440	m
(k)	Hyenas	0.76 km	Hyenas	760	m
(l)	Wolves	265 000 mm	Wolves	265	m





Maths Homework
this week is about:

**Using Measurements
(Mass and Volume)**

Answers

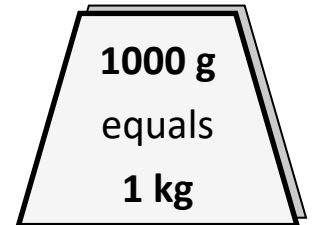
Date:

Teacher:

Year
6

(1) Find the missing values in the following table.

	Grams	Kilograms
(a)	3 000	3
(b)	5 650	5.65
(c)	360	0.36
(d)	27	0.027
(e)	86 000	86
(f)	49 300	49.3
(g)	78 240	78.24
(h)	928 000	928
(i)	3 070	3.07
(j)	60	0.06



(2) Give each of these weights as a decimal value in kilograms.

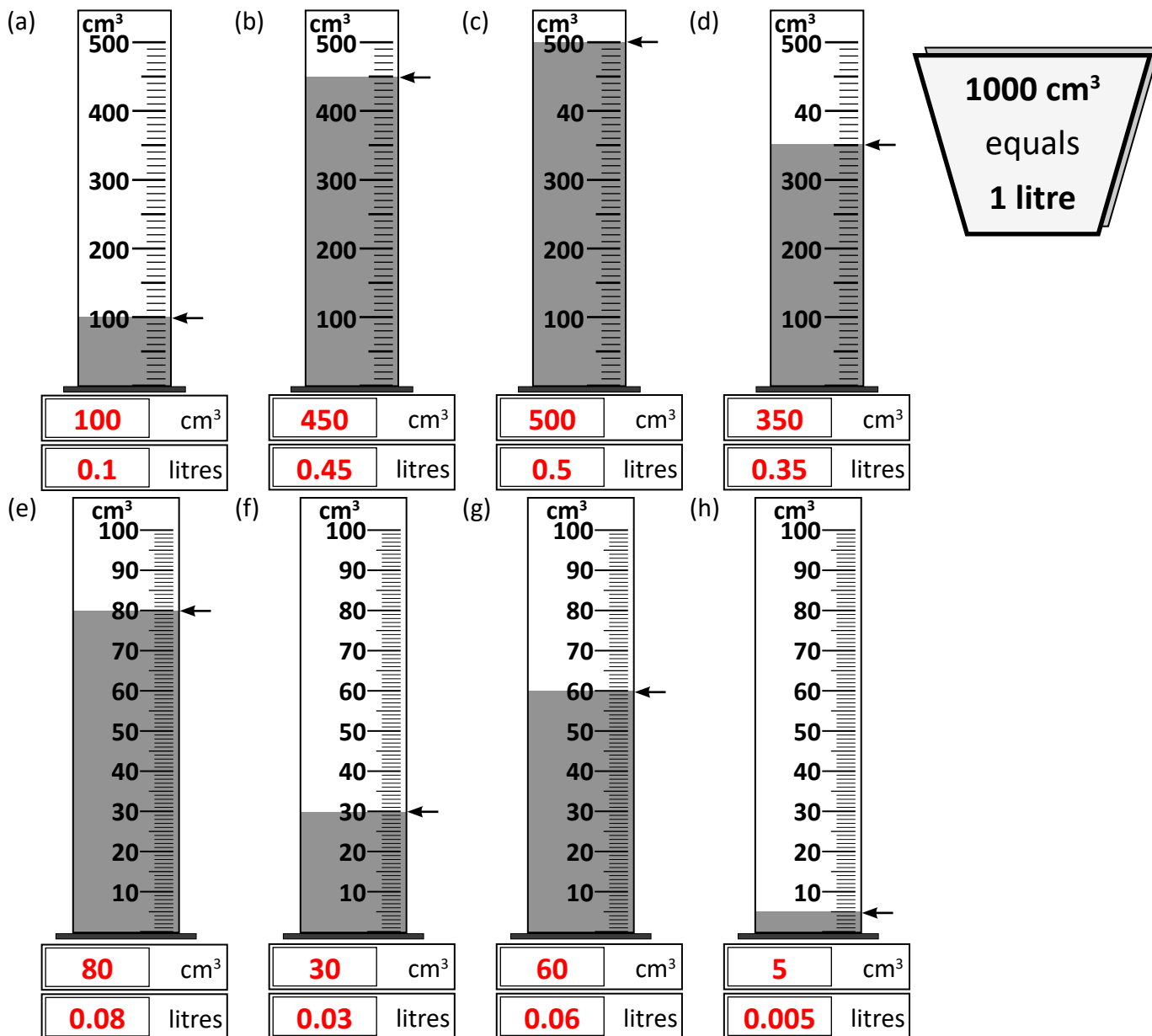
(a)	2 kilograms	460 grams	=	2.46	kg
(b)	7 kilograms	823 grams	=	7.823	kg
(c)	9 kilograms	54 grams	=	9.054	kg
(d)	14 kilograms	620 grams	=	14.62	kg
(e)	23 kilograms	756 grams	=	23.756	kg
(f)	147 kilograms	13 grams	=	147.013	kg

(3) Give each of these weights in kilograms and grams.

(a)	3.5 kg	=	3 kilograms	500 grams
(b)	8.02 kg	=	8 kilograms	20 grams
(c)	6.054 kg	=	6 kilograms	54 grams
(d)	39.08 kg	=	39 kilograms	80 grams
(e)	76.684 kg	=	76 kilograms	684 grams
(f)	235.14 kg	=	235 kilograms	140 grams



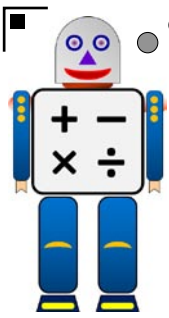
(4) Give the reading, in cm^3 , on each of these measuring cylinders, and then convert each value into litres.



(5) Find the missing values in this table.

(a)	6 000 cm^3	6 litres
(b)	11 000 cm^3	11 litres
(c)	3 700 cm^3	3.7 litres
(d)	9 400 cm^3	9.4 litres
(e)	5 260 cm^3	5.26 litres
(f)	8 103 cm^3	8.103 litres
(g)	12 060 cm^3	12.06 litres
(h)	125 000 cm^3	125 litres
(i)	800 cm^3	0.8 litres
(j)	43 cm^3	0.043 litres





Maths Homework
this week is about:
**Area and Perimeter of
Parallelograms and
Triangles**

Answers

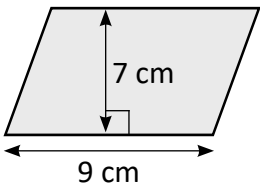
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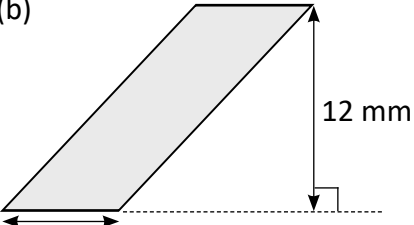
Teacher:

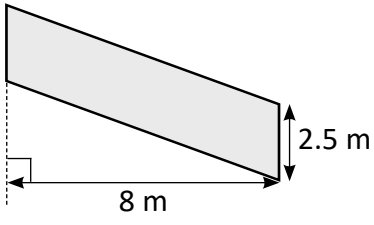
Year
6

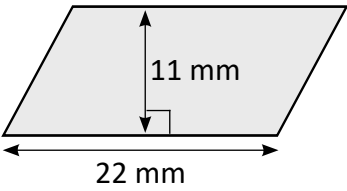
(1) Find the area of each of these parallelograms.

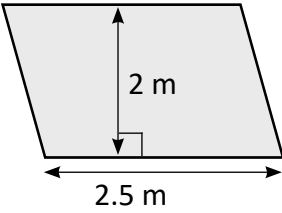
The diagrams on this sheet
are not drawn to scale.

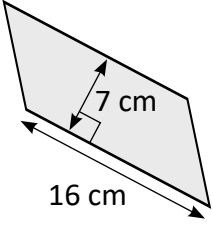
(a) 
Area = 9×7
 63 cm^2

(b) 
Area = 5×12
 60 mm^2

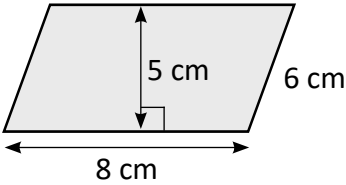
(c) 
Area = 8×2.5
 20 m^2

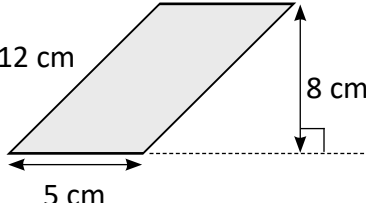
(d) 
Area = 22×11
 242 mm^2

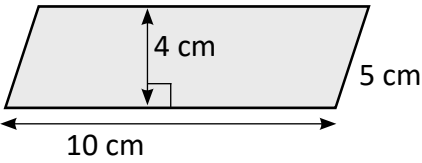
(e) 
Area = 2.5×2
 5 m^2

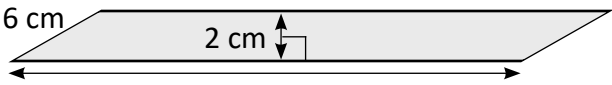
(f) 
Area = 16×7
 112 cm^2

(2) These parallelograms all have an area of 40 cm^2 , but they have different perimeters.
Find the perimeter of each one.

(a) 
Perimeter = $8 + 6 + 8 + 6$
 28 cm

(b) 
Perimeter = $5 + 12 + 5 + 12$
 34 cm

(c) 
Perimeter = $5 + 10 + 5 + 10$
 30 cm

(d) 
Perimeter = $20 + 6 + 20 + 6$
 52 cm



(3) Find the area of each of these triangles.

(a)

Area = $\frac{7 \times 12 \div 2}{42 \text{ cm}^2}$

(b)

Area = $\frac{3 \times 5 \div 2}{7.5 \text{ m}^2}$

(c)

Area = $\frac{14 \times 6 \div 2}{42 \text{ mm}^2}$

(d)

Area = $\frac{10 \times 26 \div 2}{130 \text{ mm}^2}$

(e)

Area = $\frac{14 \times 14 \div 2}{98 \text{ cm}^2}$

(f)

Area = $\frac{6.4 \times 4 \div 2}{12.8 \text{ m}^2}$

(4) This shape is made up of right angled triangles.

By finding the area of each triangle, find the total area of the complete shape.

Triangle A

Area = $\frac{30 \times 18 \div 2}{270 \text{ cm}^2}$

Triangle B

Area = $\frac{30 \times 7 \div 2}{105 \text{ cm}^2}$

Triangle C

Area = $\frac{30 \times 14 \div 2}{210 \text{ cm}^2}$

Triangle D

Area = $\frac{18 \times 24 \div 2}{216 \text{ cm}^2}$

Triangle E

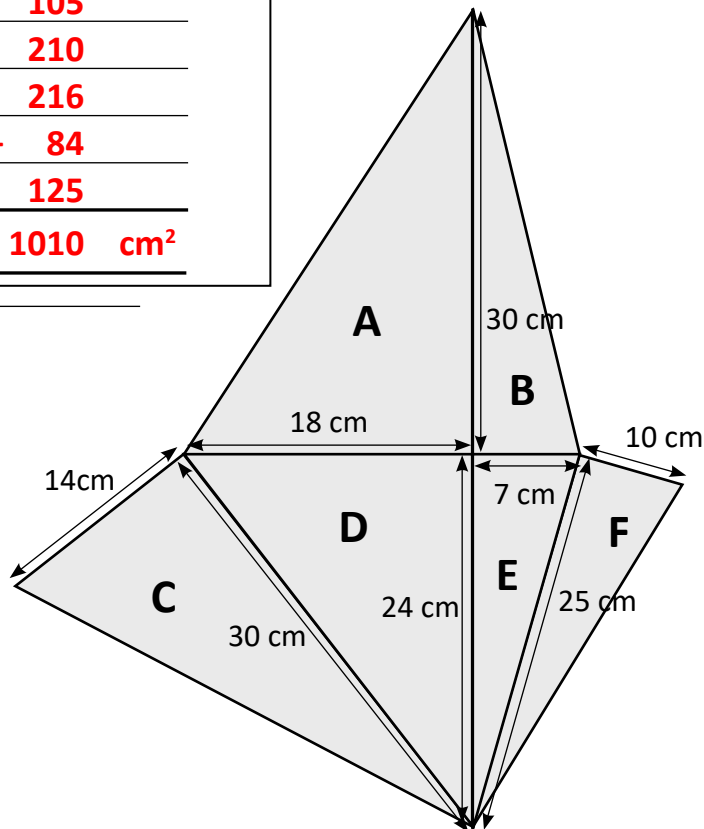
Area = $\frac{7 \times 24 \div 2}{84 \text{ cm}^2}$

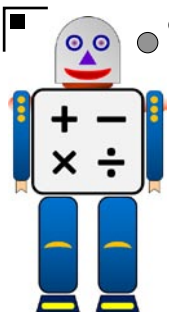
Triangle F

Area = $\frac{10 \times 25 \div 2}{125 \text{ cm}^2}$

Total Area

$\frac{270}{105}{210}{216}{+ 84}{125}{1010 \text{ cm}^2}$





Maths Homework
this week is about:

Volume of Cubes and Cuboids

Answers

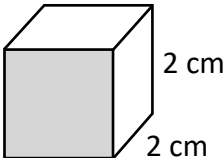
Date:

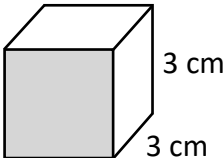
Teacher:

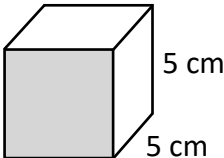
Year
6

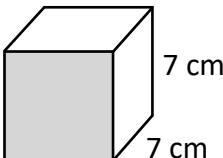
(1) Find the volume of each of these cubes.

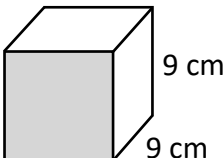
The diagrams on this sheet
are not drawn to scale.

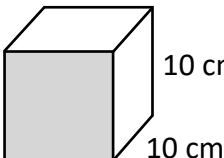
(a)  2 cm
2 cm
2 cm
Volume = $2 \times 2 \times 2$
 8 cm^3

(b)  3 cm
3 cm
3 cm
Volume = $3 \times 3 \times 3$
 27 cm^3

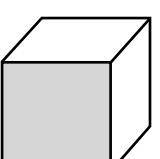
(c)  5 cm
5 cm
5 cm
Volume = $5 \times 5 \times 5$
 125 cm^3

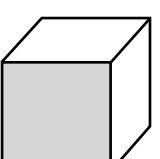
(d)  7 cm
7 cm
7 cm
Volume = $7 \times 7 \times 7$
 343 cm^3

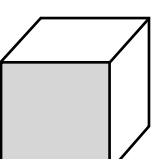
(e)  9 cm
9 cm
9 cm
Volume = $9 \times 9 \times 9$
 729 cm^3

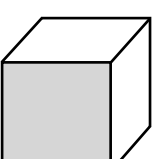
(f)  10 cm
10 cm
10 cm
Volume = $10 \times 10 \times 10$
 $1\,000 \text{ cm}^3$

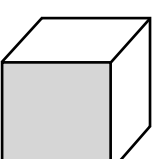
(2) These cubes each have side lengths which are whole numbers. You are given the volume for each one. Find the side length of each.

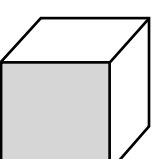
(a) Volume 
 64 cm^3
Each side length
 4 cm

(b) Volume 
 1 cm^3
Each side length
 1 cm

(c) Volume 
 216 cm^3
Each side length
 6 cm

(d) Volume 
 $8\,000 \text{ cm}^3$
Each side length
 20 cm

(e) Volume 
 512 cm^3
Each side length
 8 cm

(f) Volume 
 $27\,000 \text{ cm}^3$
Each side length
 30 cm

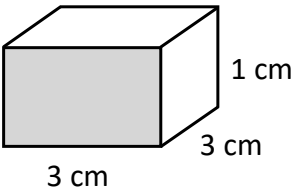
(3) Find the volume of a cube with sides of length 1.5 cm

Volume = $1.5 \times 1.5 \times 1.5$
 3.375 cm^3



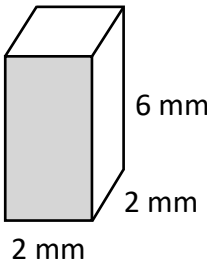
(4) Work out the volume of each of these cuboids.

(a)



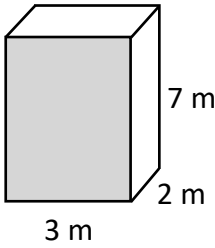
Volume = $3 \times 3 \times 1$
 9 cm^3

(b)



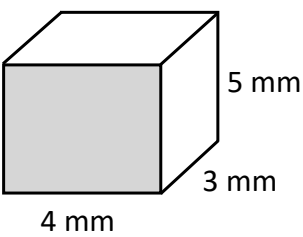
Volume = $2 \times 2 \times 6$
 24 mm^3

(c)



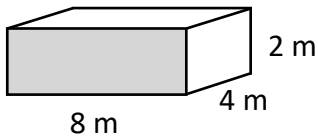
Volume = $3 \times 2 \times 7$
 42 m^3

(d)



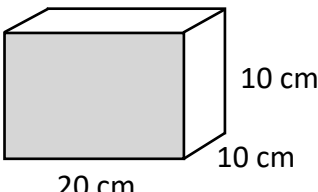
Volume = $4 \times 3 \times 5$
 60 mm^3

(e)



Volume = $8 \times 4 \times 2$
 64 m^3

(f)

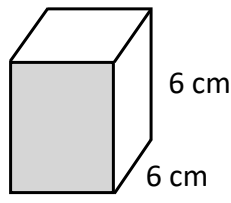


Volume = $20 \times 10 \times 10$
 $2\,000 \text{ cm}^3$

(5) Find the length of the missing side in each of these cuboids.

(a)

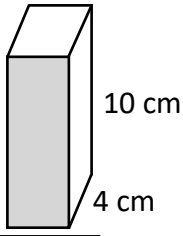
Volume = 180 cm^3



5 cm

(b)

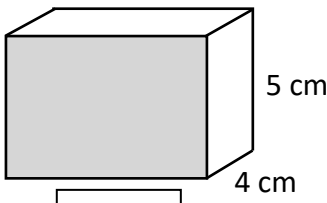
Volume = 80 cm^3



2 cm

(c)

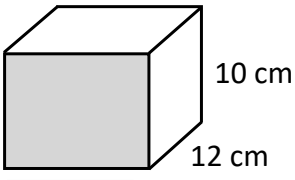
Volume = 140 cm^3



7 cm

(d)

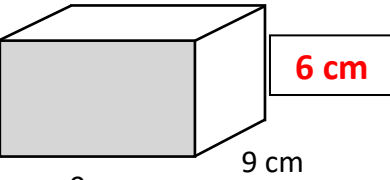
Volume = 1440 cm^3



12 cm

(e)

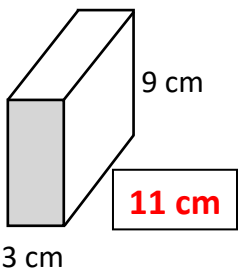
Volume = 486 cm^3



6 cm

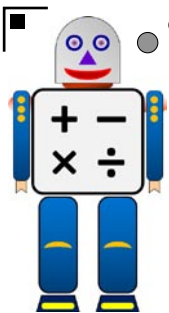
(f)

Volume = 297 cm^3



11 cm





Maths Homework
this week is about:

Drawing 2D Shapes

Answers

Date:

Teacher:

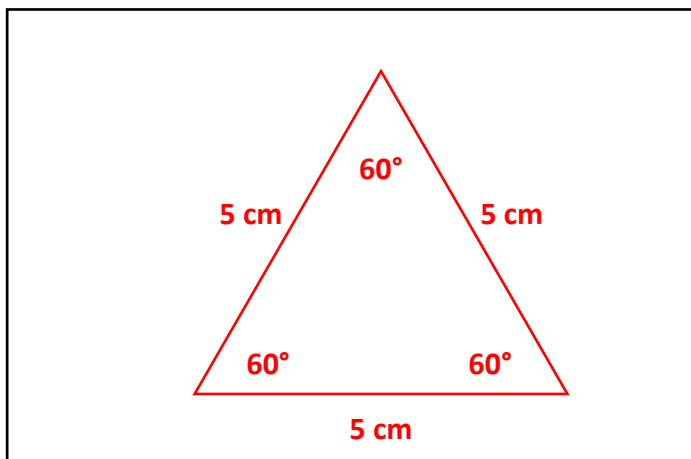
Year

6

- (1) (a) Draw an equilateral triangle with sides of length 5 cm.

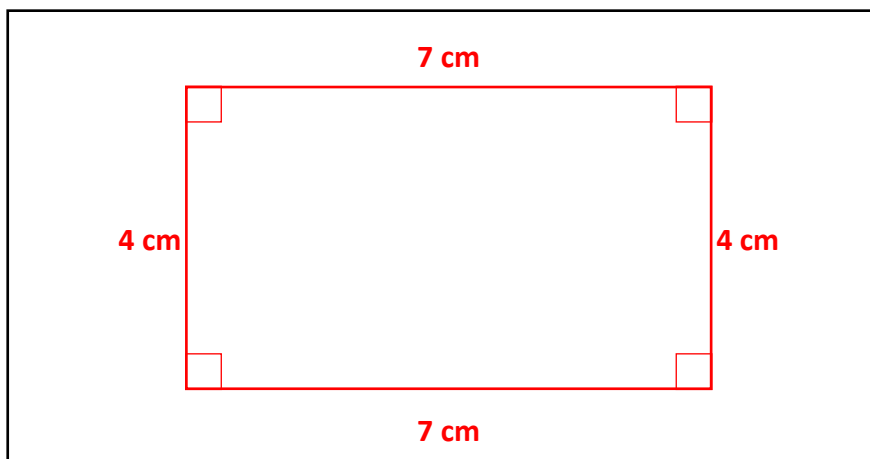
You will need a pencil, ruler and protractor.

- (b) Label the angles and side lengths on your drawing.



- (2) (a) Draw a rectangle which has a base of 7 cm and a height of 4 cm.

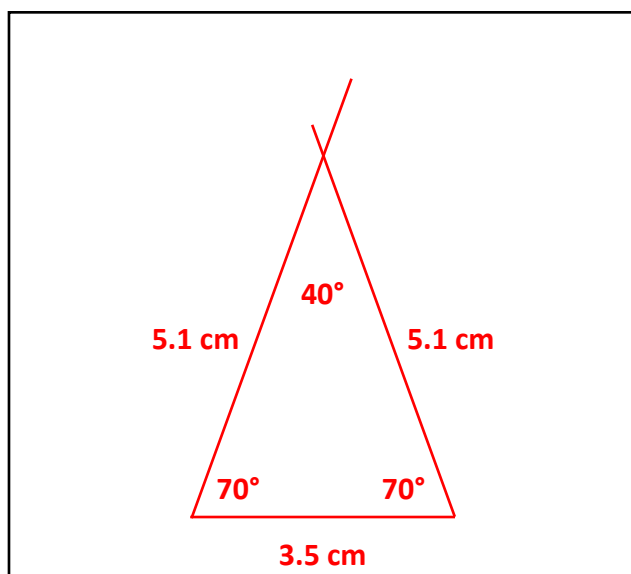
- (b) Label the angles and sides on your drawing.



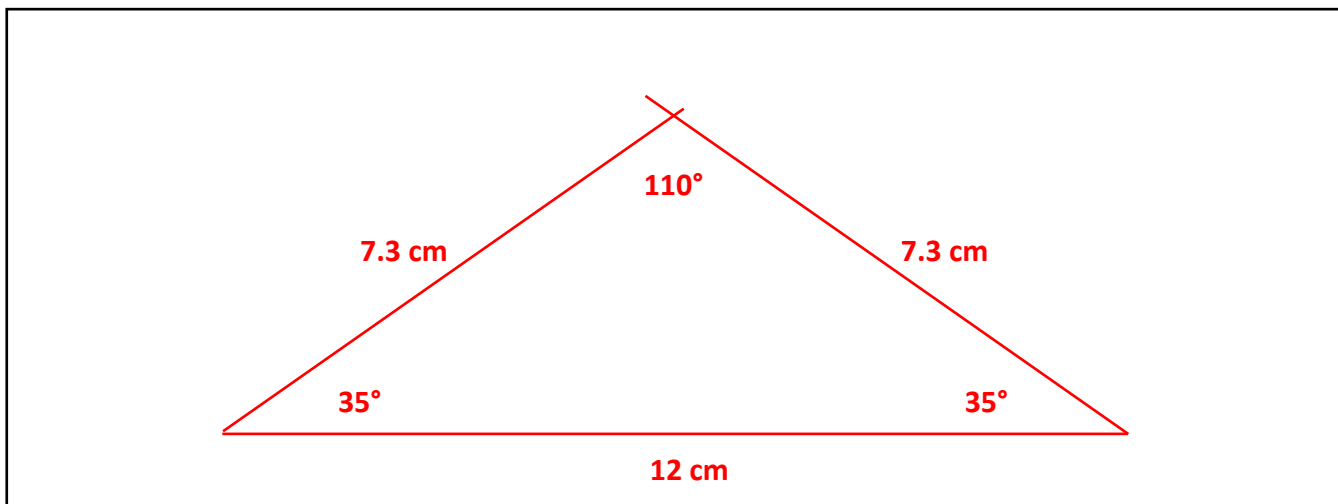
- (3) (a) Draw an isosceles triangle with a base of length 3.5 cm and two equal angles at the base of 70°.

- (b) Label the base length and all of the angles.

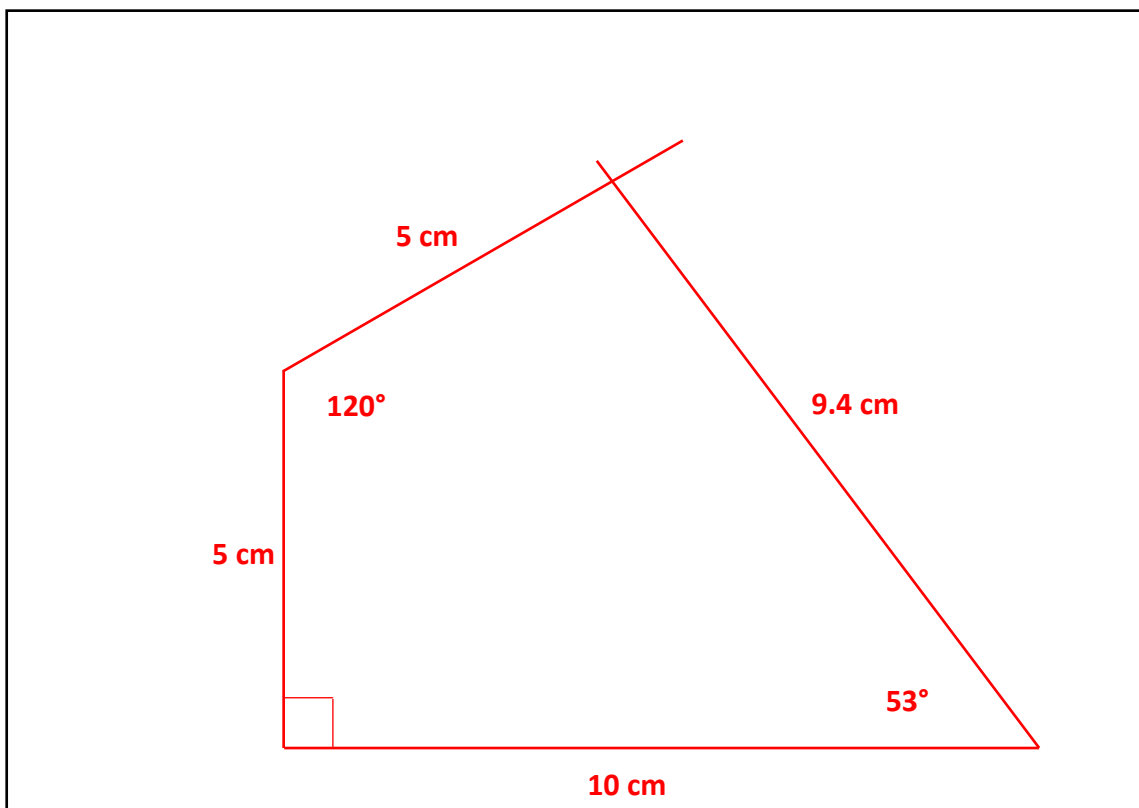
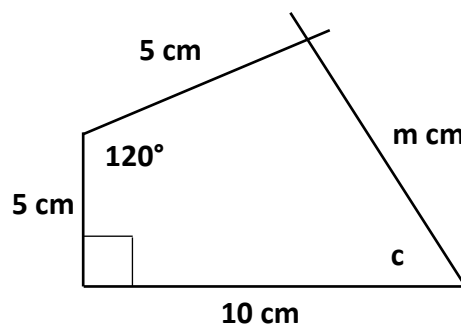
- (c) Measure and label the two equal sides.

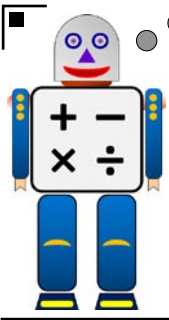


- (4) (a) Draw an isosceles triangle with a base of length 12 cm and two equal angles at the base of 35° .
 (b) Label the base length and all of the angles.
 (c) Measure and label the two equal sides.



- (5) (a) Use your ruler and protractor to make an accurate drawing of the shape shown in this sketch.
 (b) Label the given angles and side lengths on your diagram.
 (c) Measure the length of side m.
 (d) Measure the size of angle c.





Maths Homework
this week is about:

3D Shapes and Nets

Answers

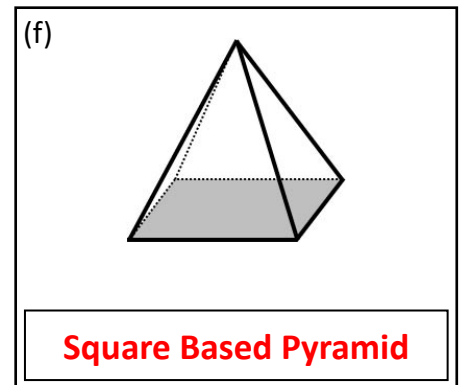
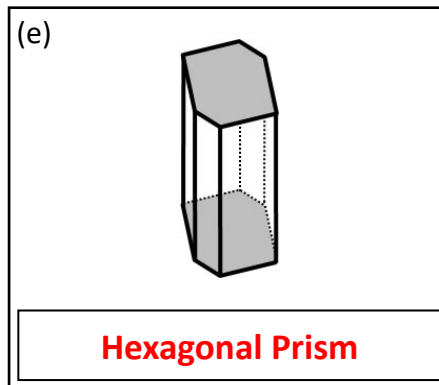
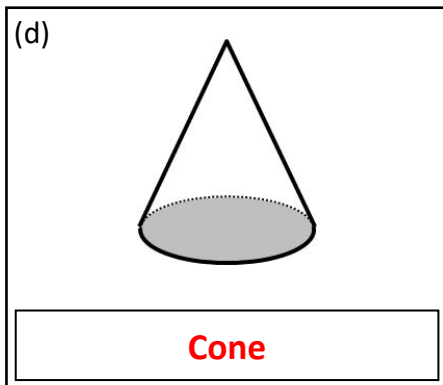
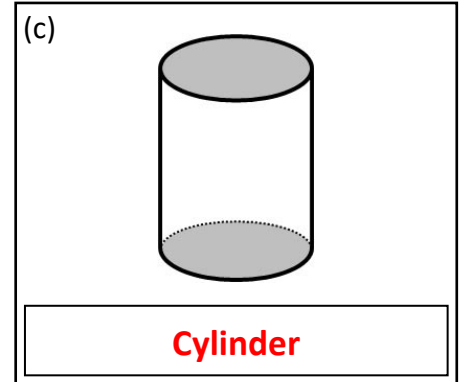
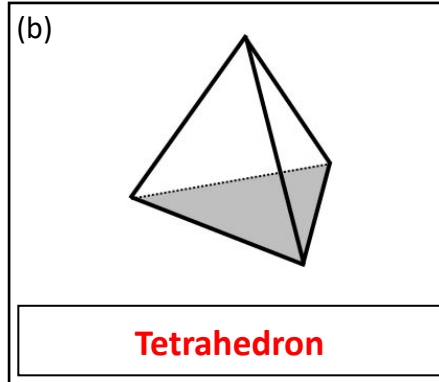
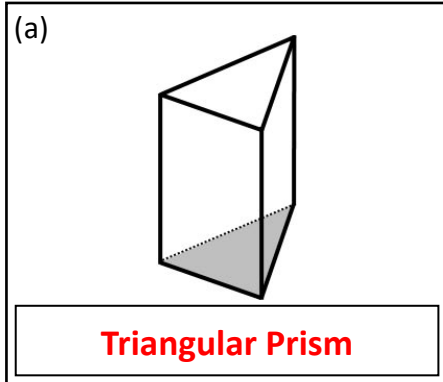
Date:

Teacher:

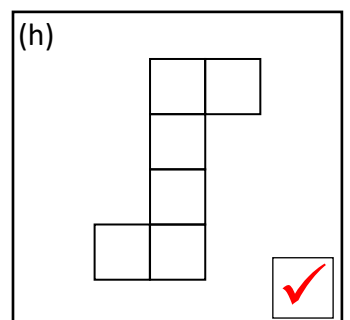
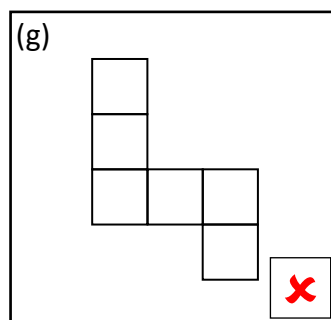
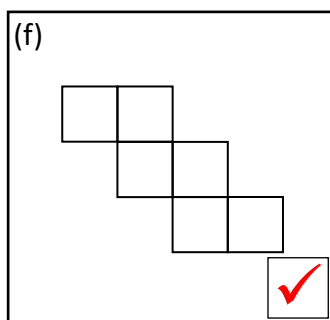
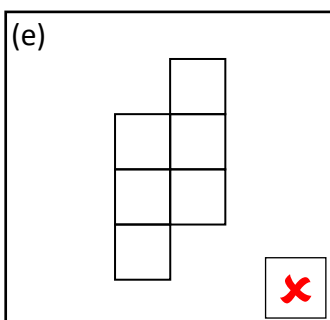
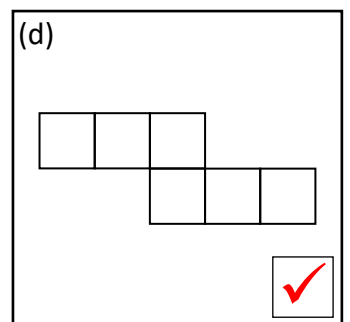
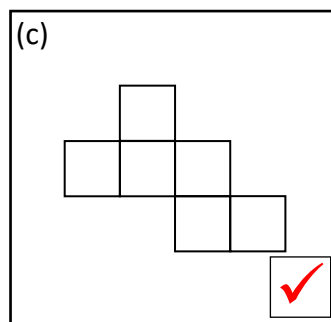
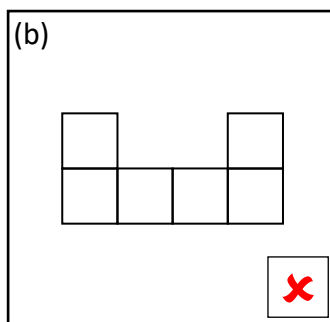
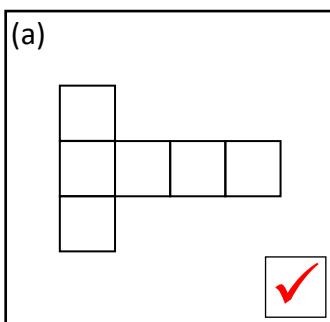
Year

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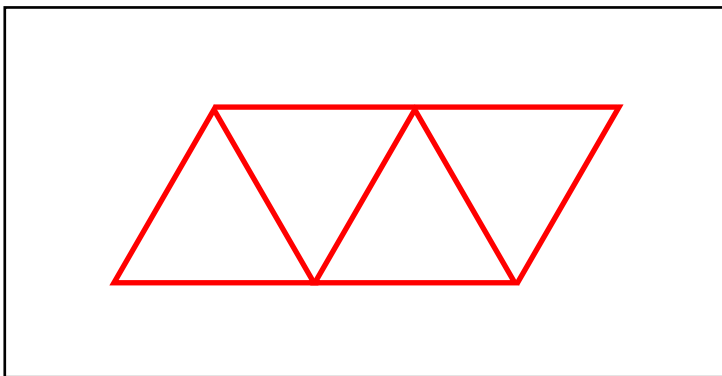
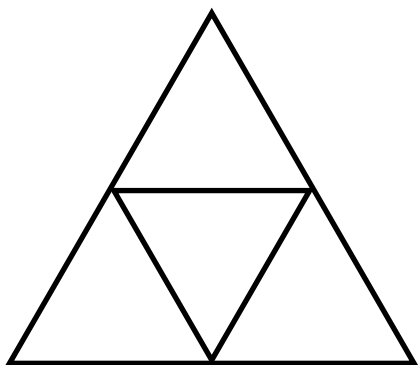
(1) Give the name of each of the following 3D shapes.



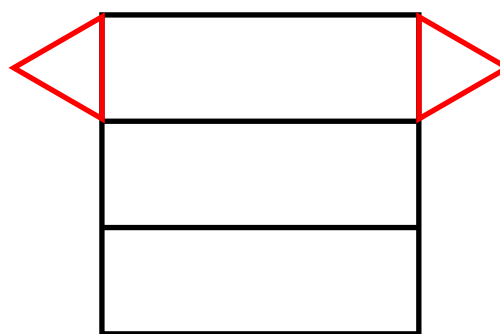
(2) Put a tick or cross next to each of these diagrams to indicate whether or not it is the net of a cube.



(3) Here is one possible net for a tetrahedron. Sketch the other possible net for a tetrahedron.

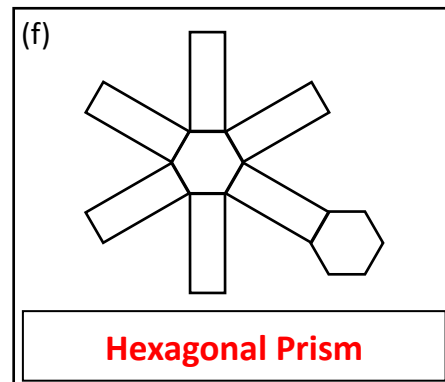
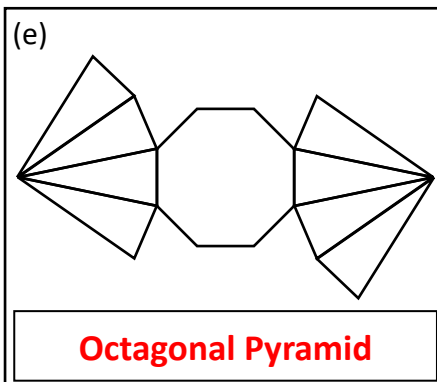
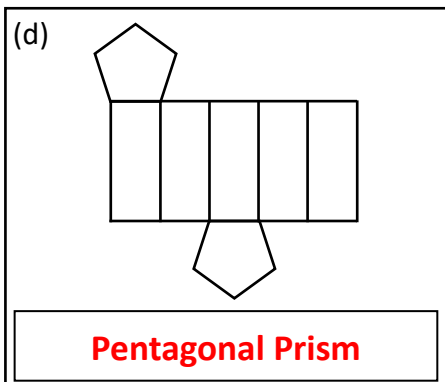
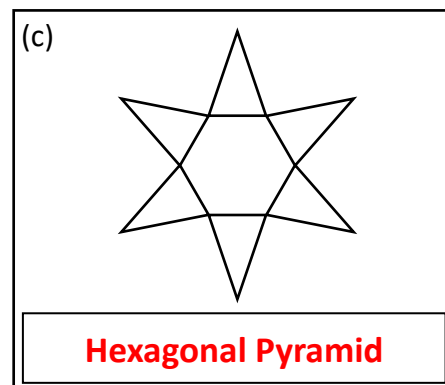
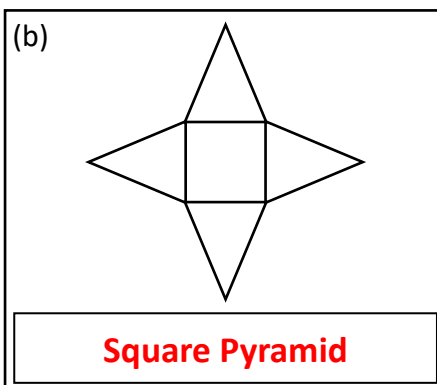
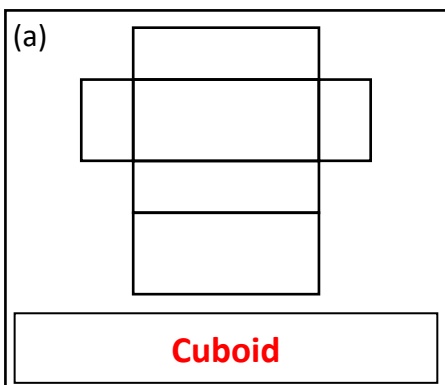


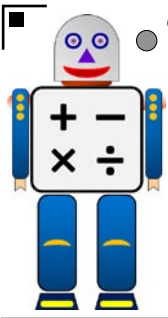
(4) Complete this net for a triangular prism.
(There are a few different ways you could do this).



There can be one triangle on each side.
The triangle can be on any of the rectangles.

(5) Name the solid which can be made from each of the following nets.





Maths Homework
this week is about:
**Angles in Triangles,
Quadrilaterals and
Polygons**

Answers

Date:

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Angles in a Triangle add up to 180°

The diagrams on this sheet
are not drawn to scale.

(1) Find the missing angle in each of the following triangles.

(a)

$62 + 71 = 133$
 $K = 180 - 133 = \boxed{47^\circ}$

(b)

$66 + 49 = 115$
 $T = 180 - 115 = \boxed{65^\circ}$

(c)

$81 + 27 = 108$
 $V = 180 - 108 = \boxed{72^\circ}$

(d)

$60 + 57 = 117$
 $M = 180 - 117 = \boxed{63^\circ}$

(e)

$24 + 125 = 149$
 $G = 180 - 149 = \boxed{31^\circ}$

(f)

$81 + 76 = 157$
 $F = 180 - 157 = \boxed{23^\circ}$

(g)

$90 + 33 = 123$
 $P = 180 - 123 = \boxed{57^\circ}$

(h)

$74 + 35 = 109$
 $E = 180 - 109 = \boxed{71^\circ}$

(i)

$80 + 71 = 151$
 $H = 180 - 151 = \boxed{29^\circ}$

(j)

$19 + 16 = 35$
 $C = 180 - 35 = \boxed{145^\circ}$

(k)

$90 + 66 = 156$
 $Y = 180 - 156 = \boxed{24^\circ}$

(l)

$59 + 23 = 82$
 $N = 180 - 82 = \boxed{98^\circ}$

(m)

$42 + 37 = 79$
 $R = 180 - 79 = \boxed{101^\circ}$

(n)

$57 + 57 = 114$
 $D = 180 - 114 = \boxed{66^\circ}$

(o)

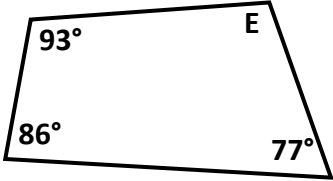
$103 + 26 = 129$
 $W = 180 - 129 = \boxed{51^\circ}$



Angles in a Quadrilateral add up to 360°

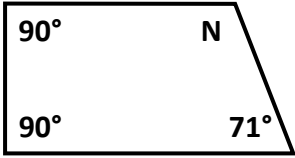
(2) Find the missing angle in each of the following quadrilaterals.

(a)



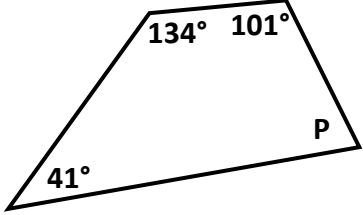
$86 + 93 + 77 = 256$
 $E = 360 - 256 = 104^\circ$

(b)



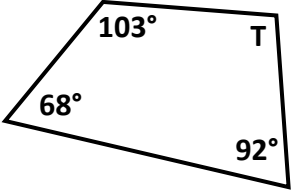
$90 + 90 + 71 = 251$
 $N = 360 - 251 = 109^\circ$

(c)



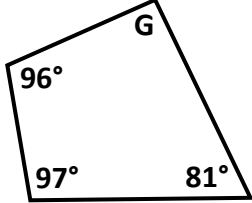
$101 + 134 + 41 = 276$
 $P = 360 - 276 = 84^\circ$

(d)



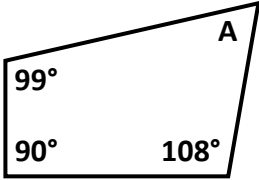
$103 + 68 + 92 = 263$
 $T = 360 - 263 = 97^\circ$

(e)



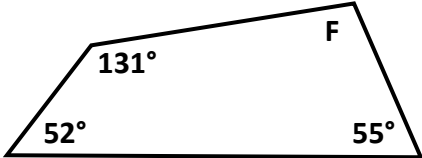
$96 + 97 + 81 = 274$
 $G = 360 - 274 = 86^\circ$

(f)



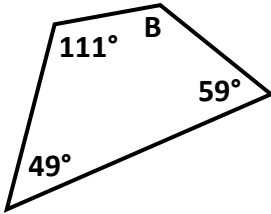
$99 + 90 + 108 = 297$
 $A = 360 - 297 = 63^\circ$

(g)



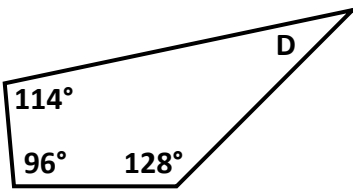
$131 + 55 + 52 = 238$
 $F = 360 - 238 = 122^\circ$

(h)



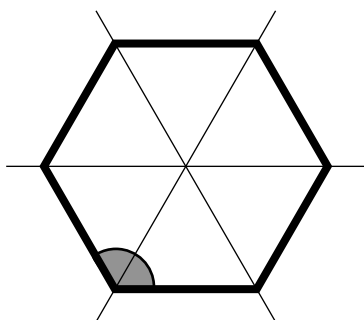
$49 + 111 + 59 = 219$
 $B = 360 - 219 = 141^\circ$

(i)



$96 + 114 + 128 = 338$
 $D = 360 - 338 = 22^\circ$

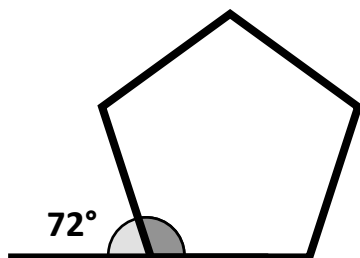
(3) This regular hexagon can be split into six equilateral triangles. What is the size of each angle inside the regular hexagon?



$60 + 60 = 120$

120°

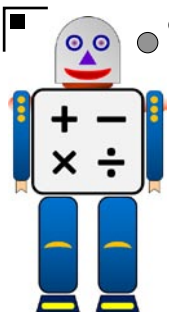
(4) The exterior angle of a regular pentagon is 72° . What is the size of each angle inside the regular pentagon?



$180 - 72 = 108$

108°





Maths Homework
this week is about:

Circles

Answers

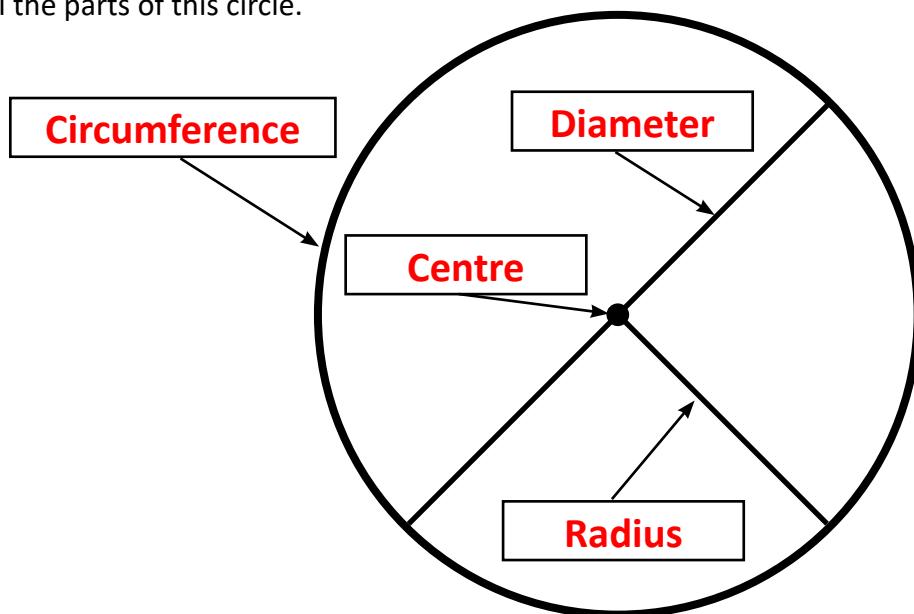
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(1) Label the parts of this circle.



(2) Find the diameter for circles with each radius in the following table.

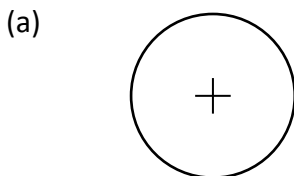
	Radius	Diameter
(a)	3 cm	6 cm
(b)	12 mm	24 mm
(c)	20 mm	40 mm
(d)	17 cm	34 cm
(e)	4.2 cm	8.4 cm
(f)	7.7 m	15.4 m
(g)	29 mm	58 mm
(h)	2.25 cm	4.5 cm
(i)	0.9 m	1.8 m
(j)	78.7 cm	157.4 cm
(k)	0.83 m	1.66 m
(l)	139 cm	278 cm



(3) Find the radius for circles with each diameter in the following table.

	Diameter	Radius
(a)	4 m	2 m
(b)	94 m	47 m
(c)	132 cm	66 cm
(d)	174 mm	87 mm
(e)	218 cm	109 cm
(f)	848 cm	424 cm
(g)	19.6 m	9.8 m
(h)	39.4 cm	19.7 cm
(i)	752 mm	376 mm
(j)	15.4 cm	7.7 cm
(k)	0.94 m	0.47 m
(l)	19.2 cm	9.6 cm

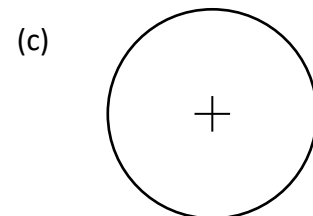
(4) Measure the diameter and radius of each of the following circles. Give your answers in millimetres.



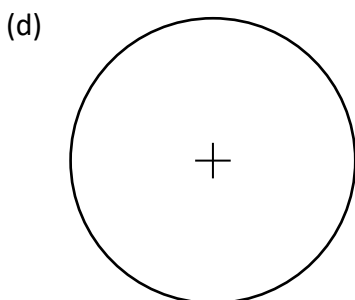
Diameter: **22 mm**
Radius: **11 mm**



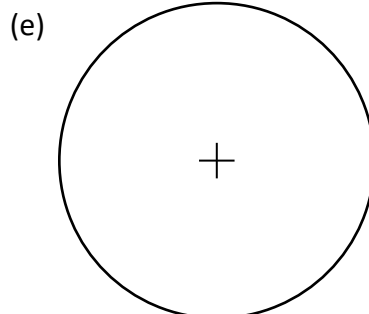
Diameter: **12 mm**
Radius: **6 mm**



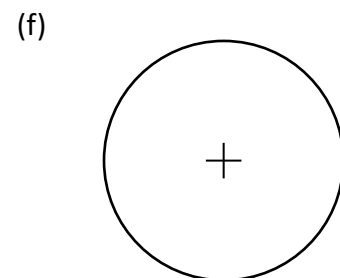
Diameter: **28 mm**
Radius: **14 mm**



Diameter: **38 mm**
Radius: **19 mm**

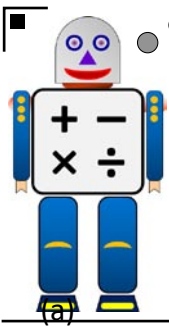


Diameter: **42 mm**
Radius: **21 mm**



Diameter: **32 mm**
Radius: **16 mm**





Maths Homework
this week is about:

Angles and Lines

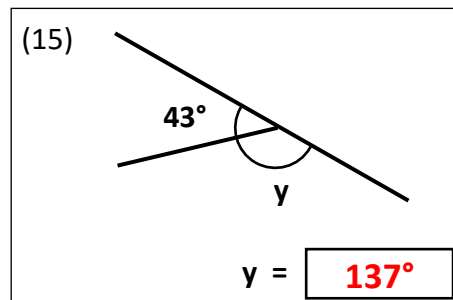
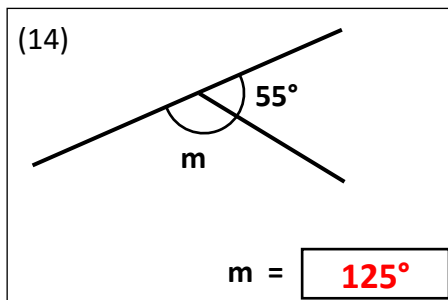
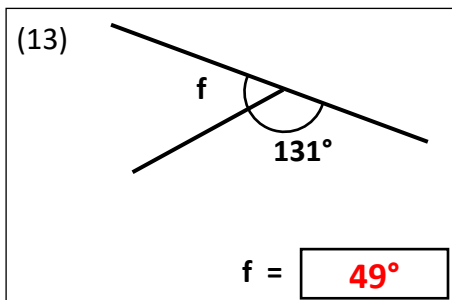
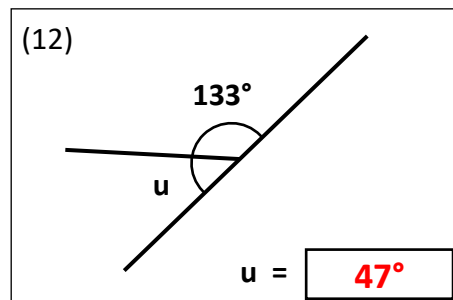
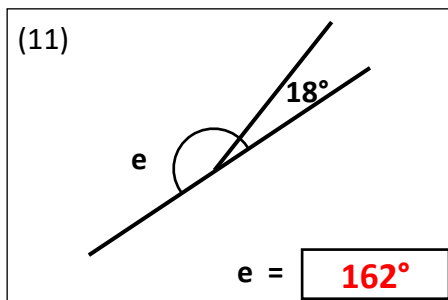
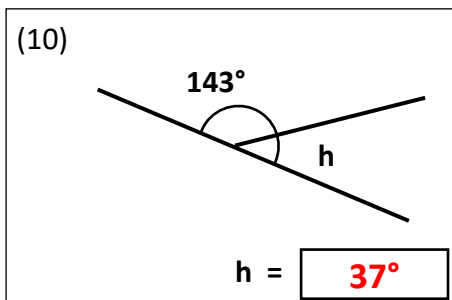
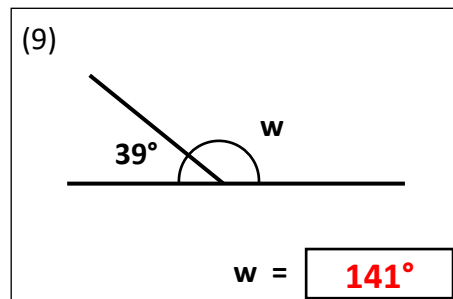
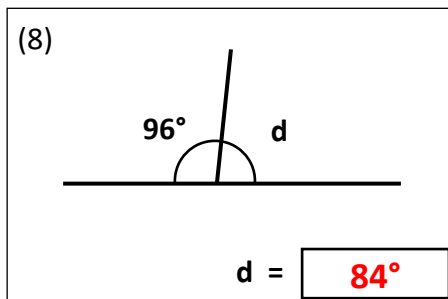
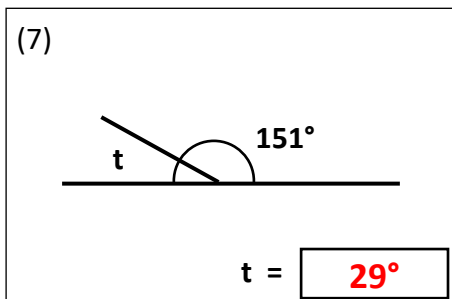
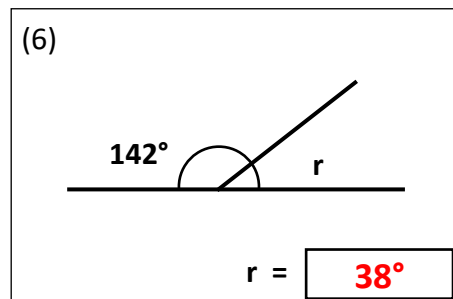
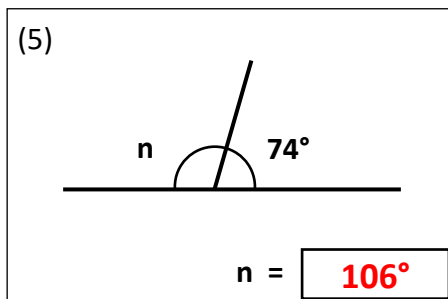
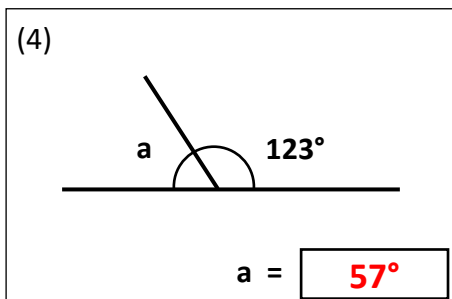
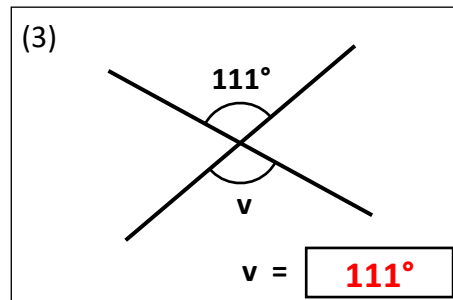
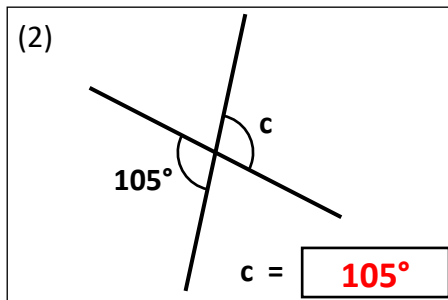
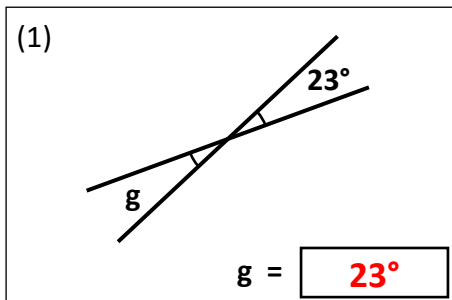
Answers

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For all the questions on this sheet, find the angles labelled with the letters.



(16)

$k = 140^\circ$

(17)

$d = 77^\circ$

(18)

$p = 132^\circ$

(19)

$c = 226^\circ$

(20)

$r = 128^\circ$

(21)

$v = 57^\circ$

(22)

$a = 140^\circ$

(23)

$y = 165^\circ$

(24)

$e = 129^\circ$

(25)

$p = 122^\circ$

(26)

$u = 124^\circ$

(27)

$w = 141^\circ$

(28)

$n = 95^\circ$

(29)

$r = 136^\circ$

(30)

$h = 126^\circ$

(31)

$f = 118^\circ$

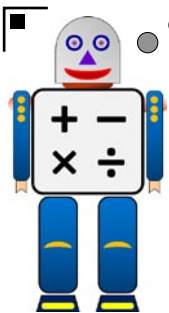
(32)

$b = 23^\circ$

(33)

$g = 39^\circ$





Maths Homework
this week is about:

Co-ordinates

Answers

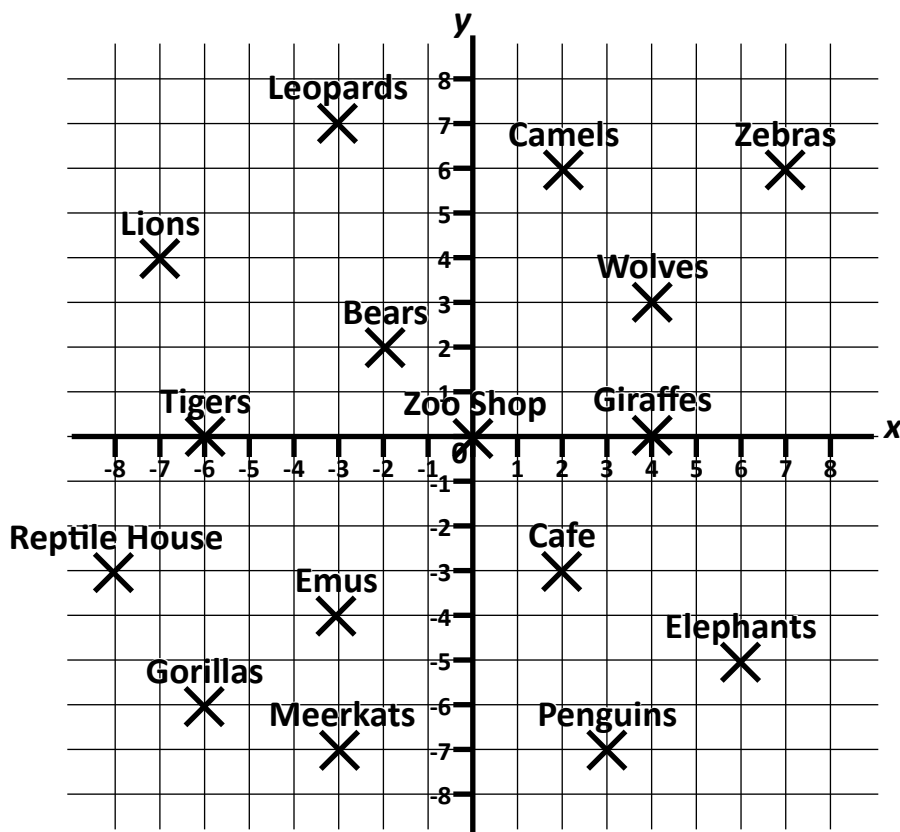
Date:

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(1) Give the co-ordinates of each place on this zoo plan.



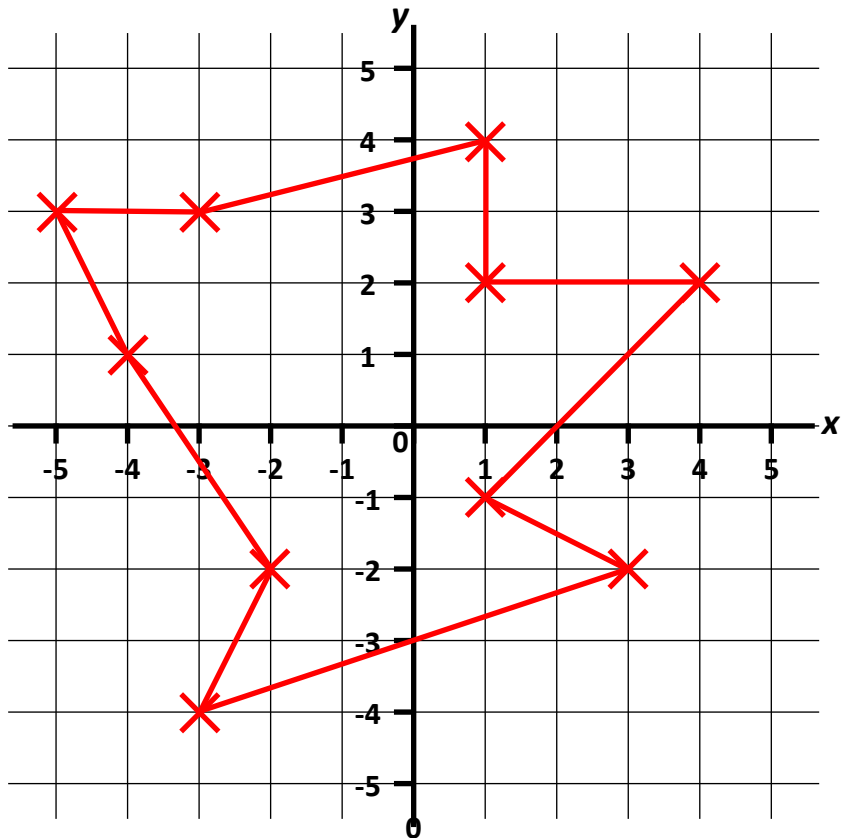
	Location	Co-ordinates
(a)	Zoo Shop	(0, 0)
(b)	Elephants	(6, -5)
(c)	Lions	(-7, 4)
(d)	Cafe	(2, -3)
(e)	Zebras	(7, 6)
(f)	Gorillas	(-6, -6)
(g)	Camels	(2, 6)
(h)	Penguins	(3, -7)

	Location	Co-ordinates
(i)	Tigers	(-6, 0)
(j)	Leopards	(-3, 7)
(k)	Wolves	(4, 3)
(l)	Emus	(-3, -4)
(m)	Giraffes	(4, 0)
(n)	Bears	(-2, 2)
(o)	Reptile House	(-8, -3)
(p)	Meerkats	(-3, -7)



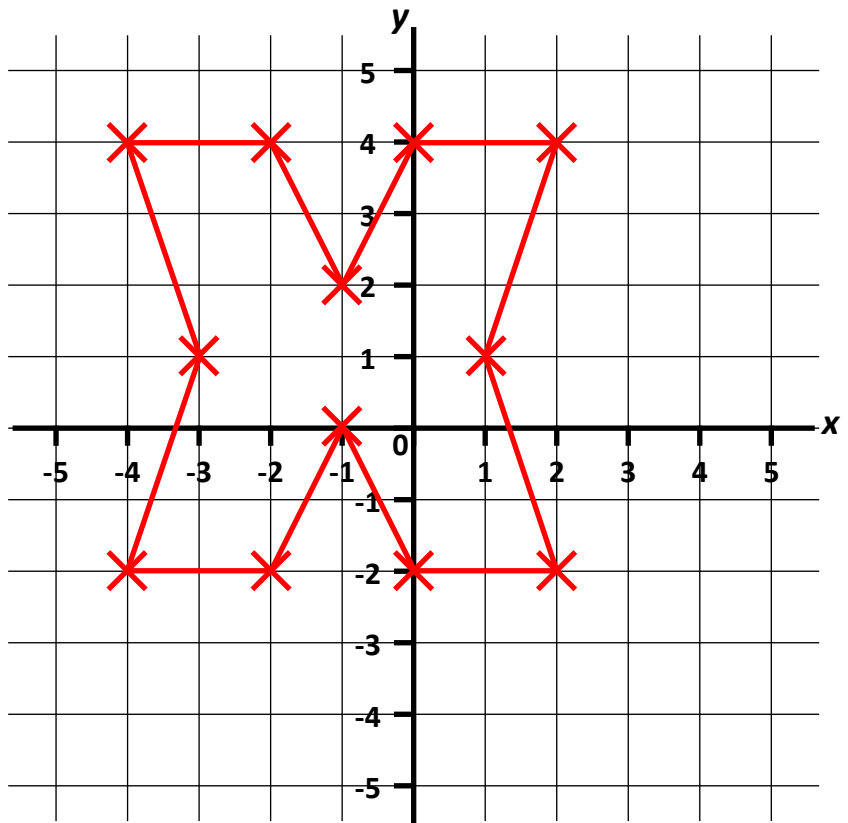
(2) Plot each of the following co-ordinates, in order, on the set of axes below, and join them in the order you plotted them to make a shape.

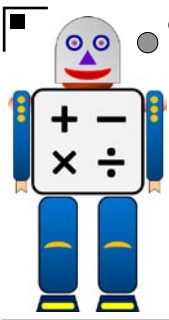
- (-3, 3)
 - (1, 4)
 - (1, 2)
 - (4, 2)
 - (1, -1)
 - (3, -2)
 - (-3, -4)
 - (-2, -2)
 - (-4, 1)
 - (-5, 3)
- then back to
- (-3, 3)



(3) Plot each of the following co-ordinates, in order, on the set of axes below, and join them in the order you plotted them to make a shape.

- (-4, 4)
 - (-2, 4)
 - (-1, 2)
 - (0, 4)
 - (2, 4)
 - (1, 1)
 - (2, -2)
 - (0, -2)
 - (-1, 0)
 - (-2, -2)
 - (-4, -2)
 - (3, 1)
- then back to
- (-4, 4)





Maths Homework
this week is about:

Translating and Reflecting Shapes

Answers

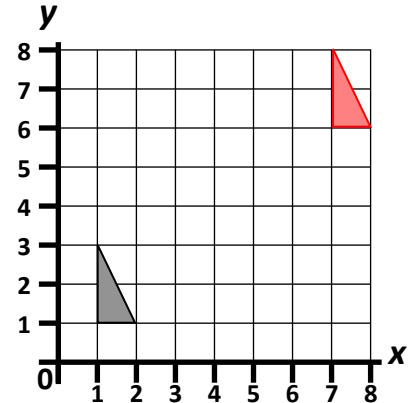
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(1) (a) Translate this shape

**6 RIGHT
5 UP**

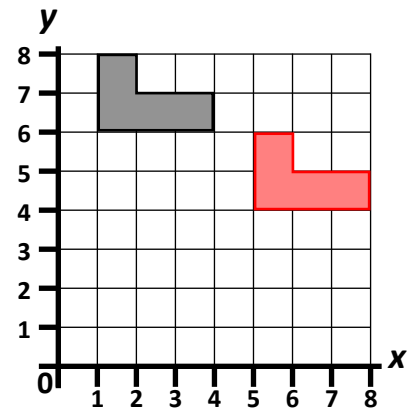


(b) Give the translation which would get from
your answer back to the starting shape.

**6 LEFT
5 DOWN**

(2) (a) Translate this shape

**4 RIGHT
2 DOWN**

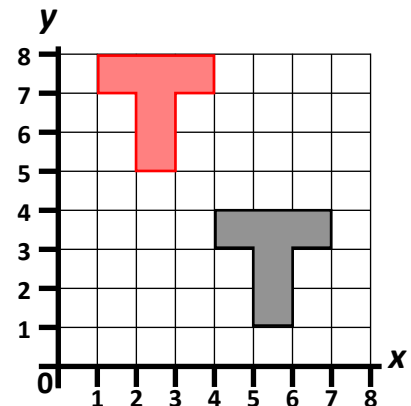


(b) Give the translation which would get from
your answer back to the starting shape.

**4 LEFT
2 UP**

(3) (a) Translate this shape

**3 LEFT
4 UP**

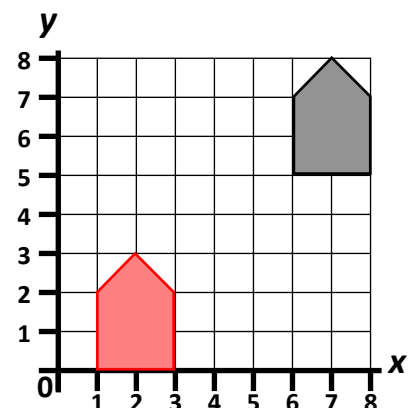


(b) Give the translation which would get from
your answer back to the starting shape.

**3 RIGHT
4 DOWN**

(4) (a) Translate this shape

**5 LEFT
5 DOWN**

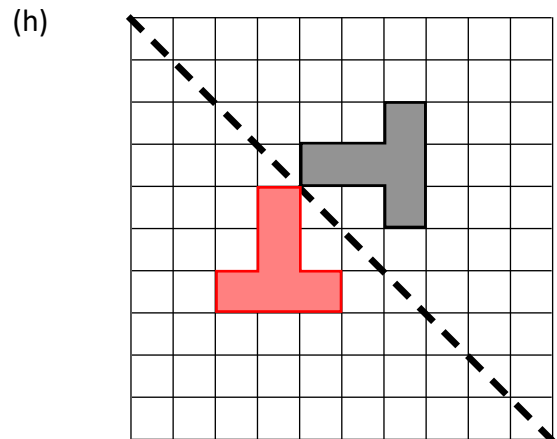
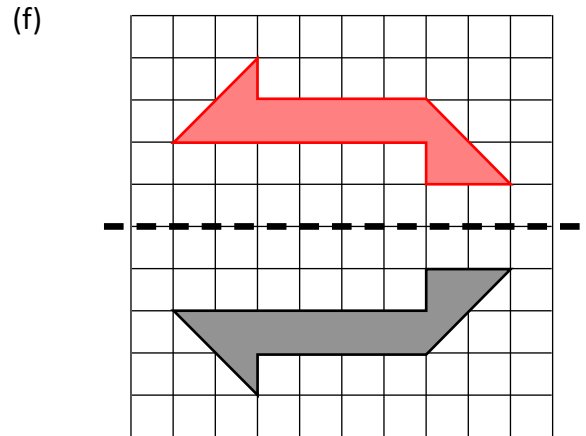
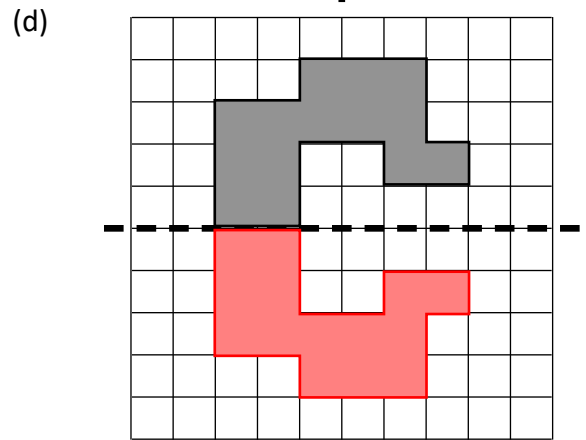
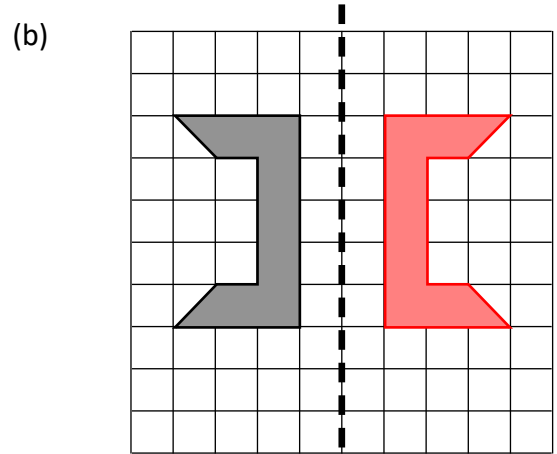
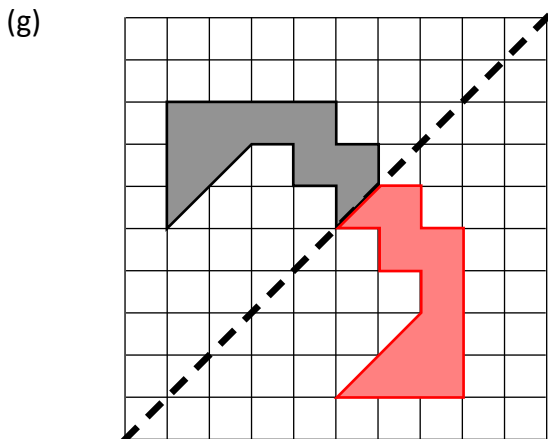
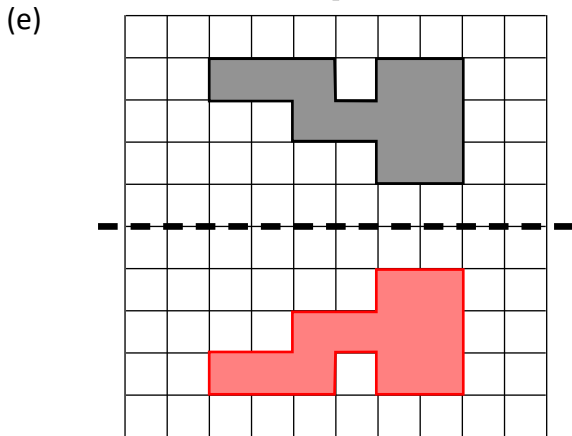
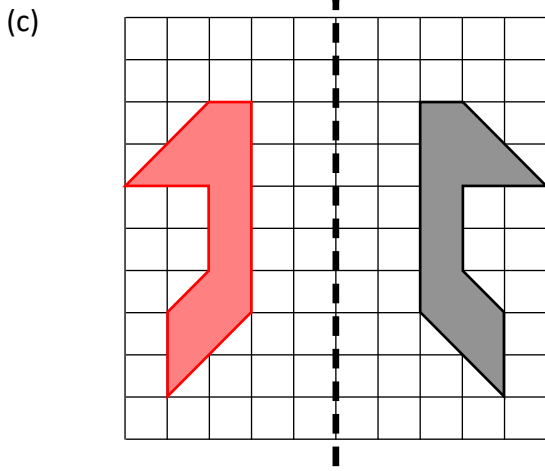
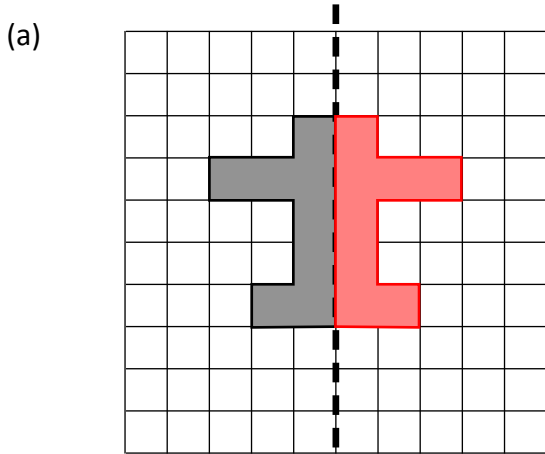


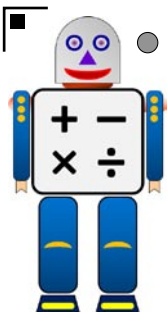
(b) Give the translation which would get from
your answer back to the starting shape.

**5 RIGHT
5 UP**



(5) Reflect each shape in the dotted mirror line given





Maths Homework
this week is about:

Pie Charts and Line Graphs

Answers

Date:

Teacher:

Year
6

(1) This pie chart shows the method used by 40 pupils to get to school.

(a) How many pupils walked?

20

(b) How many pupils came by bus?

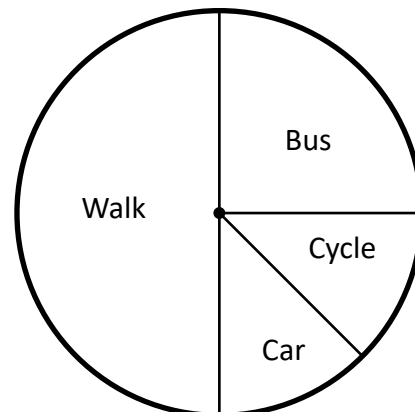
10

(c) How many pupils cycled?

5

(d) How many pupils came by car?

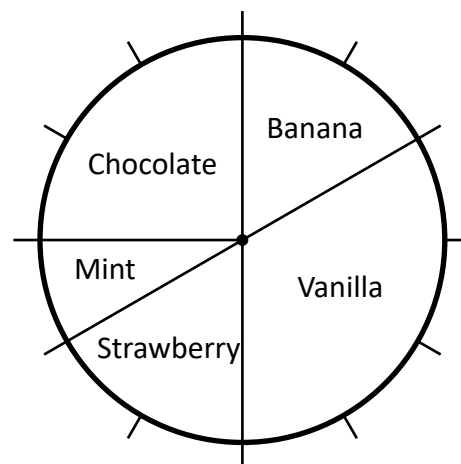
5



(2) This pie chart shows the favourite ice cream flavour of 60 pupils.

Use the information in the pie chart to fill in this table to show the number of people who chose each flavour.

Flavour	Number of People
Chocolate	15
Mint	5
Strawberry	10
Vanilla	20
Banana	10

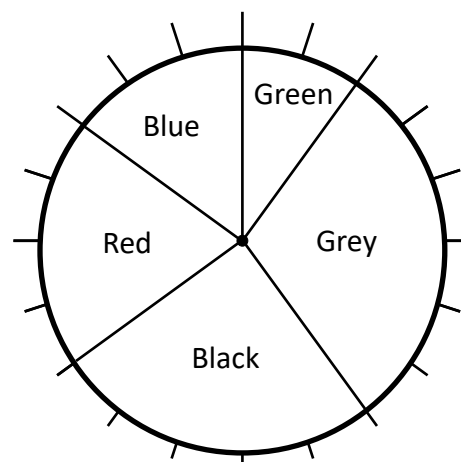


(3) Here is a pie chart to show the number of different colours of cars in a car park.

There were 100 cars altogether.

Use the information in the pie chart to fill in this table to show the number of cars of each colour.

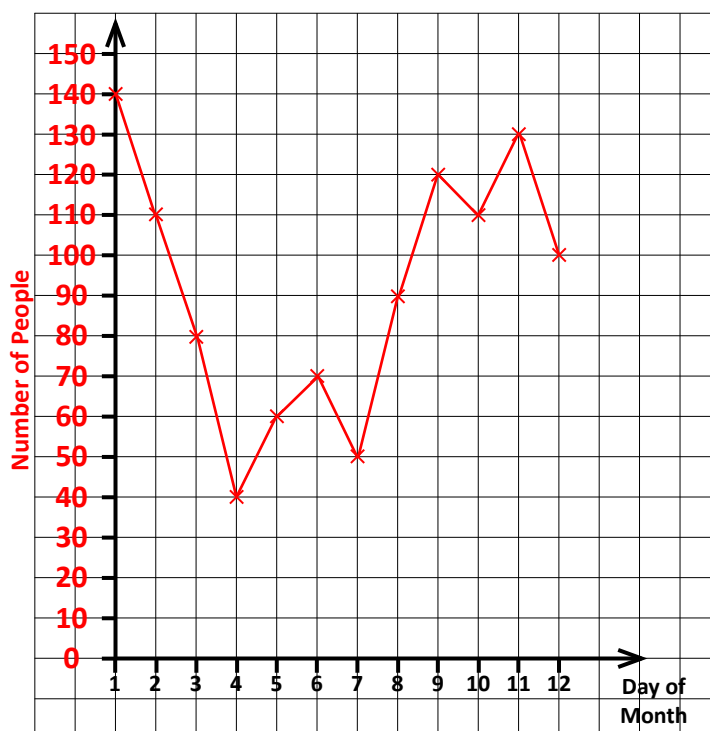
Colour	Number of Cars
Green	10
Grey	30
Black	25
Red	20
Blue	15



(4) The table below shows the number of people who visited a museum on the first 12 days of one month.

Draw a line graph to show this data.

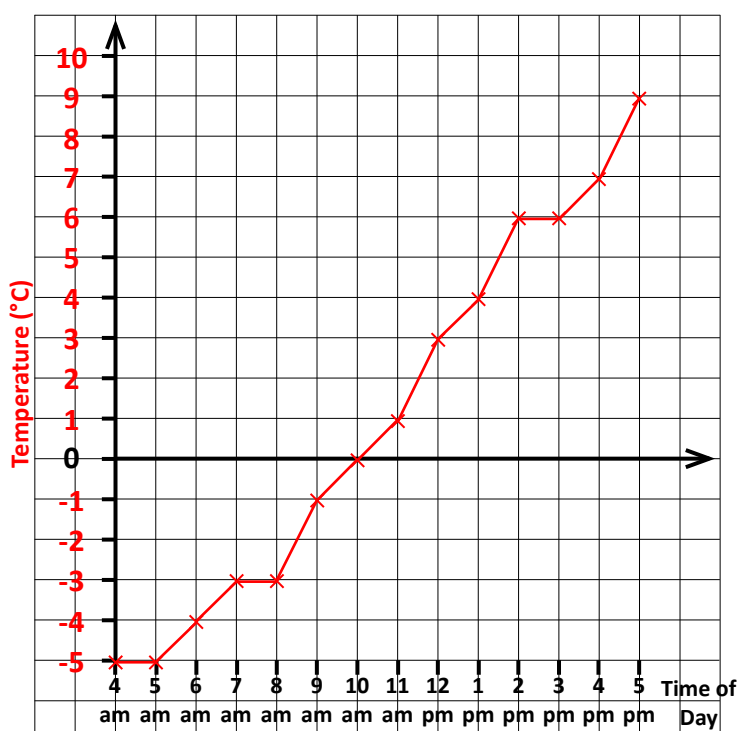
Day of Month	Number of People
1	140
2	110
3	80
4	40
5	60
6	70
7	50
8	90
9	120
10	110
11	130
12	100

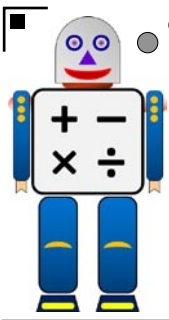


(5) The table below shows the temperature at various times during one winter day.

Draw a line graph to show this data.

Time of Day	Temperature (°C)
4 am	-5
5 am	-5
6 am	-4
7 am	-3
8 am	-3
9 am	-1
10 am	0
11 am	1
12 pm	3
1 pm	4
2 pm	6
3 pm	6
4 pm	7
5 pm	9





Maths Homework
this week is about:

Mean Averages

Answers

Date:

Teacher:

Year

6

(1) The time, in minutes, a pupil spent on homework during five nights were:

20 minutes, 22 minutes, 18 minutes, 36 minutes, 24 minutes

Find the mean number of minutes spent on homework for the five nights.

$$20 + 22 + 18 + 36 + 24 = 120$$

$$120 \div 5 = 24$$

Mean time:

24 minutes

(2) A runner ran four 400 m races one week. The times in seconds for each race were:

58 seconds, 62 seconds, 65 seconds, 59 seconds

Find the mean time in seconds for the four races.

$$58 + 62 + 65 + 59 = 244$$

$$244 \div 4 = 61$$

Mean time:

61 seconds

(3) A pupil scored the following scores out of 20 on their last six maths tests:

18, 14, 17, 19, 13, 15

Find the mean score for these six tests.

$$18 + 14 + 17 + 19 + 13 + 15 = 96$$

$$96 \div 6 = 16$$

Mean score:

16

(4) The height and weight of five friends are given below:

Height:	146 cm	152 cm	139 kg	144 kg	154 kg
Weight:	32 kg	39 kg	41 kg	37 kg	46 kg

Find the mean height and mean weight for this group of friends.

$$\text{Height: } 146 + 152 + 139 + 144 + 154 = 735$$

$$735 \div 5 = 147$$

$$\text{Weight: } 32 + 39 + 41 + 37 + 46 = 195$$

$$195 \div 5 = 39$$

Mean Height:

147 cm

Mean Weight:

39 kg



- (5) The temperatures at midday for each day of one week were as follows:
14°C, 17°C, 16°C, 19°C, 13°C, 12°C, 14°C

Find the mean temperature for the week.

$$14 + 17 + 16 + 19 + 13 + 12 + 14 = 105$$

$$105 \div 7 = 15$$

Mean temperature:

15°C

- (6) Six friends get the following amounts of pocket money per week:
£4.50, £5.50, £6.00, £4.00, £2.50, £7.50

Find the mean amount of pocket money.

$$4.5 + 5.5 + 6 + 4 + 2.5 + 7.5 = 30$$

$$30 \div 6 = 5$$

Mean amount:

£5.00

- (7) The heights of four trees in a garden are:
1.5 m, 1.25 m, 1.36 m, 1.13 m

Find the mean height of these four trees.

$$1.5 + 1.25 + 1.36 + 1.13 = 5.24$$

$$5.24 \div 4 = 1.31$$

Mean height:

1.31 m

- (8) The number of sweets in eight boxes of sweets are:
36, 33, 38, 36, 39, 31, 32, 35

Find the mean number of sweets per box.

$$36 + 33 + 38 + 36 + 39 + 31 + 32 + 35 = 280$$

$$280 \div 8 = 35$$

Mean number:

35 sweets

- (9) The mean of three numbers is **15**. Two of the numbers are **12** and **19**.
 What is the third number?

For a mean of 15, the total of the 3 numbers is $15 \times 3 = 45$

$12 + 19 = 31$, so the third number is:

$$45 - 31 = 14$$

Third number:

14

- (10) Three of the four test scores (out of 10) for a pupil are **7, 9** and **6**. The mean score for all four tests is **8**.
 What score did the pupil get in the fourth test?

For a mean of 8, the total of all 4 numbers is $8 \times 4 = 32$

$7 + 9 + 6 = 22$, so the fourth score is:

$$32 - 22 = 10$$

Fourth score:

10

