Name: ....

Homework Sheet 1: Multiplying And Dividing By 10, 100, 1000

Work out

1 286×10 ....

2 $13\,700 \times 10$ ....

3 4130×100 ....

4 407×1000 ....

5 $590\,000 \times 10$ ....

6 91×100 ....

7 35×1000 ....

8 800×100 ....

9 $261\,000 \times 10$ ....

10 6000×1000 ....

11 $730 \div 10$ ....

12 $28\,000 \div 10$ ....

13 $8700 \div 100$ ....

14 $1\,900\,000 \div 100$ ....

15 $50\,000 \div 1000$ ....

16 $4\,300\,000 \div 10$ ....

17 $3\,006\,000 \div 1000$ ....

18 $505\,000 \div 100$ ....

19 $1400 \div 10$ ....

20 $460\,000 \div 1000$ ....

Complete by writing the missing number.

21 .... $\times 10 = 1820$

22 .... $\times 10 = 37\,800$

23 .... $\times 100 = 12\,000$

24 .... $\times 100 = 923\,000$

25 .... $\times 1000 = 168\,000$

26 .... $\times 1000 = 1\,394\,000$

27 .... $\div 10 = 7000$

28 .... $\div 10 = 452\,360$

29 .... $\div 100 = 804$

30 .... $\div 100 = 83\,100$

31 .... $\div 1000 = 1000$

32 .... $\div 1000 = 530$

How many centimetres make:

33 380 m ....

34 2000 m? ....

How many metres make:

35 72 km ....

36 4500 km? ....

Name: . . . .

Homework Sheet 2:   Rounding

> To round to the nearest 10 look at the units column.
> To round to the nearest 100 look at the tens column.
> To round to the nearest 1000 look at the hundreds column.
> If the number is less than 5, round up.
> If the number is 5 or greater than 5, round up.

Round these numbers to the nearest:

10		100		1000	
1 873		**9** 1390		**17** 7200	
2 1428		**10** 16 428		**18** 13 643	
3 3045		**11** 38 476		**19** 35 520	
4 25 236		**12** 23 954		**20** 78 376	
5 19 592		**13** 62 747		**21** 20 800	
6 76 407		**14** 9068		**22** 49 438	
7 42 155		**15** 79 939		**23** 29 500	
8 36 564		**16** 7250		**24** 60 924	

Approximate by rounding to the nearest whole one.

25 9·1 + 8·8 is about $\boxed{9}$ + $\boxed{}$ = $\boxed{}$

26 8·4 + 2·5 is about $\boxed{}$ + $\boxed{}$ = $\boxed{}$

27 17·2 − 4·9 is about $\boxed{}$ − $\boxed{}$ = $\boxed{}$

28 28·6 − 11·8 is about $\boxed{}$ − $\boxed{}$ = $\boxed{}$

29 18·3 × 4·9 is about $\boxed{}$ × $\boxed{}$ = $\boxed{}$

30 7·8 × 7·1 is about $\boxed{}$ × $\boxed{}$ = $\boxed{}$

31 64·8 ÷ 4·9 is about $\boxed{}$ ÷ $\boxed{}$ = $\boxed{}$

32 53·5 ÷ 6·1 is about $\boxed{}$ ÷ $\boxed{}$ = $\boxed{}$

Name: . . . .

Homework Sheet 3: Number Sequences

To find the rule that links the numbers study the gaps.

Examples	−5	−1	3	7	11	The rule is 'add 4'.
	0·8	0·7	0·6	0·5	0·4	The rule is 'subtract 0·1'.

Fill in the numbers in each sequence.

	Rule	Start at							
1	+0·4	0·6	1·0	1·4					
2	−20	255							
3	+10	−47							
4	−0·9	7·4							
5	+8	69							
6	−3	12							
7	+0·05	1·3							
8	−19	165							

Complete the sequences by filling in the boxes.

9	−22	−17	−12	−7				
10	17·5	16·4	15·3	14·2				
11					625	700	775	850
12					−2	−6	−10	−14
13			1.05	1.1	1.15	1.2		
14			148	127	106	85		
15	−30	−23	−16	−9				
16	31	28·5	26	23·5				

Name: ....

Homework Sheet 4: Negative Numbers

We often use negative numbers in the context of temperature

Negative numbers
Below zero
Have a minus sign

Positive numbers
Above zero

−40°   A   B   C   0°   D   E   40°
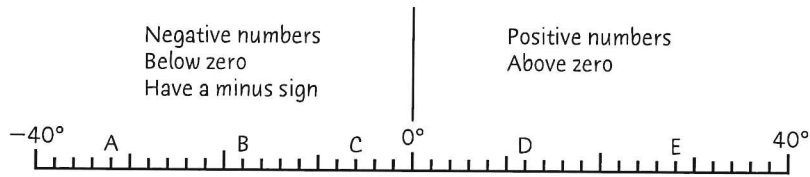
Write the temperature shown by each letter

1 A ....   2 B ....   3 C ....   4 D ....   5 E ....

What is the difference in temperature between:

6 A and D ....   8 B and D ....   10 C and D ....

7 A and C ....   9 C and E ....   11 B and E? ....

What would the temperature be if it was:

12 at B and rose 36° ....   15 at A and rose 58° ....

13 at D and rose 20° ....   16 at E and rose 44° ....

14 at C and rose 22° ....   17 at C and rose 40°? ....

Complete the tables showing changes in temperature.

18

OLD	CHANGE	NEW
−7°	+16°	
8°	−24°	
−21°	−17°	
−16°	+31°	
−43°	−29°	
15°	−27°	

19

OLD	CHANGE	NEW
	−29°	−18°
	−28°	−7°
	+22°	13°
	−55°	−32°
	+60°	3°
	−31°	−14°

Name: . . . .

Homework Sheet 5: Multiples

> Multiples are the numbers in a multiplication table.
> 7, 14, 21 … 77, 84, 91 … 140, 147, 154 are multiples of 7.

Complete the first 8 multiples of the number in the first box.

1	15	*30*	*45*					
2	12							
3	9							
4	75							
5	30							

Write Yes or No.

6 Is 64 a multiple of 8? . . . .

7 Is 122 a multiple of 11? . . . .

8 Is 105 a multiple of 21? . . . .

9 Is 87 a multiple of 7? . . . .

10 Is 153 a multiple of 17? . . . .

11 Is 96 a multiple of 16? . . . .

12 Is 86 a multiple of 40? . . . .

13 Is 300 a multiple of 40? . . . .

14 Is 108 a multiple of 9? . . . .

15 Is 78 a multiple of 13? . . . .

16 Is 84 a multiple of 7? . . . .

17 Is 410 a multiple of 20? . . . .

18 Is 200 a multiple of 8? . . . .

19 Is 175 a multiple of 15? . . . .

Draw a circle around the numbers which are *not* multiples of:

20 | 13 | 52 117 63 91 75

21 | 35 | 280 235 105 270 315

22 | 19 | 56 114 95 179 152

23 | 22 | 242 112 88 154 202

Write two numbers that are multiples of both:

24 5 and 11

25 7 and 4

26 20 and 25

27 3 and 13.

Name: ....

Homework Sheet 6:   Divisibility Tests

Whole numbers are divisible by:

100 if the last two digits are 00	10 if the last digit is 0
2 if the number is even	5 if the last digit is 0 or 5
3 if the sum of the digits is divisible by 3	4 if the last 2 digits are divisible by 4
6 if the number is even and divisible by 3	8 if the last 3 digits are divisible by 8
9 if the sum of the digits is divisible by 9	25 if the last 2 digits are 00, 25, 50 or 75.

Write T (True) or F (False) in each box.

1 3915 is divisible by 5.　[ ]　　7 5787 is divisible by 9.　[ ]

2 1485 is divisible by 3.　[ ]　　8 420 is divisible by 100.　[ ]

3 705 is divisible by 10.　[ ]　　9 875 is divisible by 25.　[ ]

4 4132 is divisible by 8.　[ ]　　10 1392 is divisible by 4.　[ ]

5 2574 is divisible by 6.　[ ]　　11 1436 is divisible by 6.　[ ]

6 2245 is divisible by 2.　[ ]　　12 2376 is divisible by 8.　[ ]

13 Complete the table using ticks and crosses to show divisibility.

	DIVISIBLE BY							
NUMBER	3	4	5	6	8	9	10	25
600	✓							
855	✓							
216	✓							
250	✗							
384								
750								

Name: ....

Homework Sheet 7:   Prime Numbers

THE SEIVE OF ERASTOSTHENES

Erastosthenes was a famous mathematician in Ancient Greece. He discovered a way of finding prime numbers known as the "Seive of Erastosthenes". A prime number is a number which is divisible only by itself and one. Note that 1 is *not* a prime number.

Use five different coloured pens or pencils.

Follow the directions to find the prime numbers to 100.

1 Cross out 1 with a pencil.

2 Draw a circle around 2, 3 , 5 and 7 with the same pencil.

3 Use a different colour. Cross out all the multiples of 2, leaving 2 itself.

4 Use a third colour. Cross out all the multiples of 3, except for 3.

5 Use a fourth colour. Cross out all the multiples of 5, except for 5.

6 Use a fifth colour. Cross out all the multiples of 7, except for 7.

7 Use your first colour again. Draw circles around all the numbers that are left. These are the prime numbers to 100.

8

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

How many prime numbers have you found? ☐

Write out the prime numbers. ....

....

Homework Sheet 8:   Equivalent Fractions

Complete these equivalent fractions.

1 $\dfrac{1}{2} = \dfrac{\square}{16}$

2 $\dfrac{4}{5} = \dfrac{\square}{15}$

3 $\dfrac{7}{10} = \dfrac{\square}{50}$

4 $\dfrac{1}{6} = \dfrac{\square}{12}$

5 $\dfrac{1}{8} = \dfrac{5}{\square}$

6 $\dfrac{3}{4} = \dfrac{12}{\square}$

7 $\dfrac{1}{3} = \dfrac{7}{\square}$

8 $\dfrac{4}{7} = \dfrac{8}{\square}$

9 $\dfrac{3}{10} = \dfrac{\square}{100}$

10 $\dfrac{2}{9} = \dfrac{\square}{27}$

11 $\dfrac{1}{4} = \dfrac{\square}{20}$

12 $\dfrac{2}{5} = \dfrac{\square}{40}$

13 $\dfrac{1}{5} = \dfrac{20}{\square}$

14 $\dfrac{2}{3} = \dfrac{10}{\square}$

15 $\dfrac{7}{8} = \dfrac{14}{\square}$

16 $\dfrac{5}{7} = \dfrac{20}{\square}$

Cancel each fraction into its simplest form.

17 $\dfrac{\cancel{15}}{\cancel{25}}\ \dfrac{3}{5}$

18 $\dfrac{6}{8}$

19 $\dfrac{15}{24}$

20 $\dfrac{9}{18}$

21 $\dfrac{45}{50}$

22 $\dfrac{24}{36}$

23 $\dfrac{15}{18}$

24 $\dfrac{16}{36}$

25 $\dfrac{6}{21}$

26 $\dfrac{18}{24}$

27 $\dfrac{70}{100}$

28 $\dfrac{16}{20}$

29 $\dfrac{42}{48}$

30 $\dfrac{22}{55}$

31 $\dfrac{32}{48}$

Pick out the letters above the fractions equivalent to the fraction in the bracket.
Rearrange these letters to make a word using the clue.

32 $\left(\dfrac{2}{5},\ \text{a girl's name}\right)$ . . . .

L	A	C	M	I	N	T	D	A	Y	E	B
$\dfrac{8}{25}$	$\dfrac{4}{10}$	$\dfrac{12}{50}$	$\dfrac{25}{60}$	$\dfrac{16}{40}$	$\dfrac{12}{30}$	$\dfrac{6}{10}$	$\dfrac{8}{20}$	$\dfrac{25}{35}$	$\dfrac{15}{40}$	$\dfrac{24}{60}$	$\dfrac{10}{20}$

33 $\left(\dfrac{1}{3},\ \text{a boy's name}\right)$ . . . .

P	Y	R	O	N	G	H	A	R	N	L	E
$\dfrac{6}{15}$	$\dfrac{8}{24}$	$\dfrac{2}{6}$	$\dfrac{10}{25}$	$\dfrac{6}{9}$	$\dfrac{9}{18}$	$\dfrac{5}{15}$	$\dfrac{15}{50}$	$\dfrac{12}{30}$	$\dfrac{12}{36}$	$\dfrac{6}{20}$	$\dfrac{4}{12}$

Name: . . . .

Homework Sheet 9: Improper Fractions

Examples	Change $\frac{17}{6}$ to a mixed number.
	Divide numerator by denominator. $\qquad$ $17 \div 6 = 2$ rem. 5
	Put remainder over denominator. $\qquad$ $\frac{17}{6} = 2\frac{5}{6}$
	Change $5\frac{3}{8}$ to an improper fraction.
	Multiply whole number by denominator. $\qquad$ $5 \times 8 = 40$
	Add the numerator. $\qquad$ $40 + 3 = 43$
	Put the sum over denominator. $\qquad$ $5\frac{3}{8} = \frac{43}{8}$

Complete these equivalent fractions.

1 $\dfrac{17}{3} = 5\dfrac{2}{3}$ $\qquad$ **5** $\dfrac{35}{8} = \ldots\ldots$ $\qquad$ **9** $\dfrac{341}{100} = \ldots\ldots$ $\qquad$ **13** $\dfrac{31}{14} = \ldots\ldots$

2 $\dfrac{43}{5} = \ldots\ldots$ $\qquad$ **6** $\dfrac{73}{20} = \ldots\ldots$ $\qquad$ **10** $\dfrac{45}{7} = \ldots\ldots$ $\qquad$ **14** $\dfrac{383}{50} = \ldots\ldots$

3 $\dfrac{31}{4} = \ldots\ldots$ $\qquad$ **7** $\dfrac{31}{6} = \ldots\ldots$ $\qquad$ **11** $\dfrac{139}{25} = \ldots\ldots$ $\qquad$ **15** $\dfrac{100}{11} = \ldots\ldots$

4 $\dfrac{97}{10} = \ldots\ldots$ $\qquad$ **8** $\dfrac{41}{15} = \ldots\ldots$ $\qquad$ **12** $\dfrac{57}{16} = \ldots\ldots$ $\qquad$ **16** $\dfrac{62}{9} = \ldots\ldots$

Change to improper fractions.

17 $3\dfrac{1}{6} = \dfrac{19}{6}$ $\qquad$ **21** $5\dfrac{3}{4} = \dfrac{\square}{\square}$ $\qquad$ **25** $4\dfrac{7}{13} = \dfrac{\square}{\square}$ $\qquad$ **29** $7\dfrac{22}{25} = \dfrac{\square}{\square}$

18 $11\dfrac{4}{5} = \dfrac{\square}{5}$ $\qquad$ **22** $6\dfrac{3}{10} = \dfrac{\square}{\square}$ $\qquad$ **26** $8\dfrac{5}{9} = \dfrac{\square}{\square}$ $\qquad$ **30** $5\dfrac{6}{11} = \dfrac{\square}{\square}$

19 $4\dfrac{79}{100} = \dfrac{\square}{100}$ $\qquad$ **23** $14\dfrac{1}{3} = \dfrac{\square}{\square}$ $\qquad$ **27** $3\dfrac{8}{15} = \dfrac{\square}{\square}$ $\qquad$ **31** $6\dfrac{7}{8} = \dfrac{\square}{\square}$

20 $3\dfrac{5}{12} = \dfrac{\square}{12}$ $\qquad$ **24** $5\dfrac{21}{50} = \dfrac{\square}{\square}$ $\qquad$ **28** $4\dfrac{6}{7} = \dfrac{\square}{\square}$ $\qquad$ **32** $5\dfrac{7}{19} = \dfrac{\square}{\square}$

Name: . . . .

Homework Sheet 10:   Decimal Fractions

Examples	$\frac{8}{10} = 0\cdot8$	$\frac{17}{100} = 0\cdot17$	$\frac{238}{1000} = 0\cdot238$
	$419\frac{7}{10} = 419\cdot7$	$65\frac{23}{100} = 65\cdot23$	$1\frac{19}{1000} = 1\cdot019$

Write the number shown on each abacus as a mixed number and as a decimal fraction.

1

3

2

4
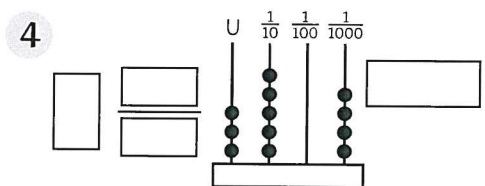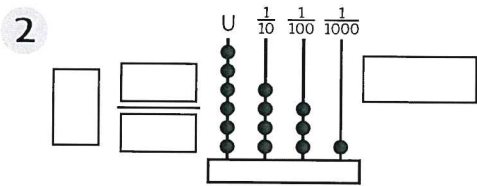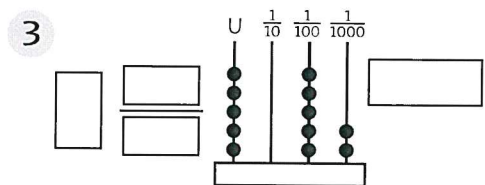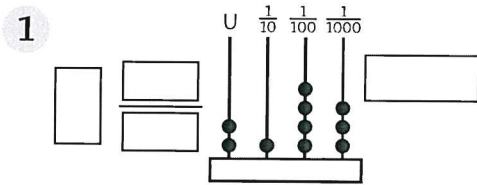
Write the decimal fraction shown by each arrow in the box.

5

0.4   0.5

6

0.21   0.23
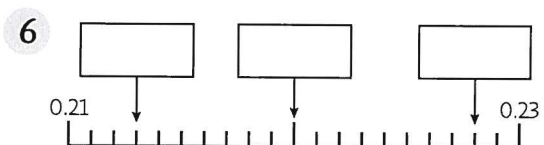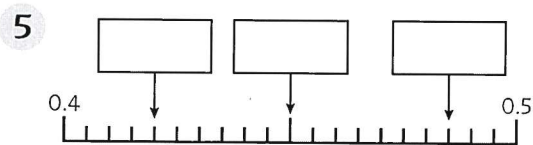
Write each number as a decimal fraction.

7 $5\frac{35}{100}$ . . . .

11 $\frac{7}{10}$ . . . .

15 $1\frac{425}{1000}$ . . . .

8 $19\frac{872}{1000}$ . . . .

12 $2\frac{63}{1000}$ . . . .

16 $3\frac{6}{1000}$ . . . .

9 $\frac{654}{1000}$ . . . .

13 $4\frac{579}{1000}$ . . . .

17 $10\frac{3}{100}$ . . . .

10 $1\frac{138}{1000}$ . . . .

14 $\frac{1}{1000}$ . . . .

18 $8\frac{17}{1000}$ . . . .

Write the value of the underlined figure.

19 $3\underline{6}\cdot4$ . . . .

22 $4\cdot9\underline{5}$ . . . .

25 $64\cdot\underline{7}1$ . . . .

20 $1\cdot53\underline{9}$ . . . .

23 $7\underline{4}\cdot329$ . . . .

26 $\underline{2}9\cdot534$ . . . .

21 $21\cdot8\underline{7}$ . . . .

24 $0\cdot61\underline{8}$ . . . .

27 $8\cdot10\underline{3}$ . . . .

Name: . . . .

Homework Sheet 11:   Ordering Decimals

Draw a circle around the larger of each pair of numbers.

1   3·21   2·313

3   5·335   5·353

5   2·16   2·156

2   1·177   1·7

4   7·811   7·118

6   1·499   1·94

7   Locate the numbers on the line.

| 2.0 | 1.994 | 2.008 | 1.997 | 2.003 |

1.99   2.01
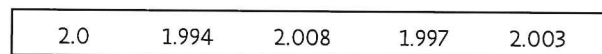
Arrange the decimals in ascending order.

8   4·336   3·346   4·36   4·63   3·46   . . . .

9   0·827   0·78   0·708   7·08   0·782   . . . .

10   5·44   5·434   5·343   3·455   3·54   . . . .

11   9·22   2·922   9·229   2·99   9·29   . . . .

12   1·111   1·1   11·11   1·11   11·1   . . . .

Complete by writing > (greater than), < (less than) or = in the box.

13   2·74   ☐   2·471

16   6·810   ☐   6·81

19   7·777   ☐   70·07

14   3·015   ☐   3·105

17   7·8941   ☐   9·471

20   2·1   ☐   2·100

15   4·2   ☐   4·022

18   0·103   ☐   0·048

21   5·09   ☐   5·009

Name: . . . .

Homework Sheet 12: Fractions of Quantities

Examples	$\frac{1}{9}$ of $720 = 720 \div 9$	$\frac{4}{7}$ of $350 = (350 \div 7) \times 4$
	$= 80$	$= 50 \times 4 = 200$

What fraction of 1 litre is 150 ml?

Answer $= \frac{150}{1000} = \frac{15}{100} = \frac{3}{20}$, because 1 litre $= 1000$ ml.

Work out

1 $\frac{9}{10}$ of 200 . . . .

2 $\frac{2}{5}$ of 300 . . . .

3 $\frac{3}{8}$ of 96 . . . .

4 $\frac{37}{100}$ of 1 m . . . . cm

5 $\frac{5}{6}$ of 180 m . . . . m

6 $\frac{747}{1000}$ of 1 m . . . . mm

7 $\frac{5}{9}$ of 180 g . . . . g

8 $\frac{53}{100}$ of 1 kg . . . . g

9 $\frac{7}{10}$ of 1 kg . . . . g

10 $\frac{111}{1000}$ of 1 litre . . . . ml

11 $\frac{4}{10}$ of 1 litre . . . . ml

12 $\frac{9}{100}$ of 1 litre . . . . ml

Give each answer as a fraction in its simplest form. What fraction of:

13 £1 is 13p

14 £1 is 45p

15 £1 is 72p

16 1 litre is 50 ml

17 1 litre is 630 ml

18 1 litre is 183 ml

19 1 m is 40 cm

20 1 m is 17 cm

21 1 m is 35 cm

22 A roll of cloth is 15 metres long.
Three quarters of the cloth is used.
How much is left? ☐ m ☐ cm

23 There are 360 children in a primary school.
Four ninths of the children are in the lower school.
How many children are there in the upper school? ☐

Homework Sheet 13:   Percentages

You need to know that:

$$1 = \frac{100}{100} = 1\cdot0 = 100\%$$ $$\frac{1}{4} = \frac{25}{100} = 0\cdot25 = 25\%$$

$$\frac{1}{10} = \frac{10}{100} = 0\cdot1 = 10\%$$ $$\frac{1}{2} = \frac{50}{100} = 0\cdot5 = 50\%$$

$$\frac{1}{5} = \frac{20}{100} = 0\cdot2 = 20\%$$ $$\frac{3}{4} = \frac{75}{100} = 0\cdot75 = 75\%$$

$$\frac{1}{100} = 0\cdot01 = 1\%$$

Shade the following percentages.

1 75%

3 12.5%

5 36%

7 59%

2 60%

4 90%

6 70%

8 85%
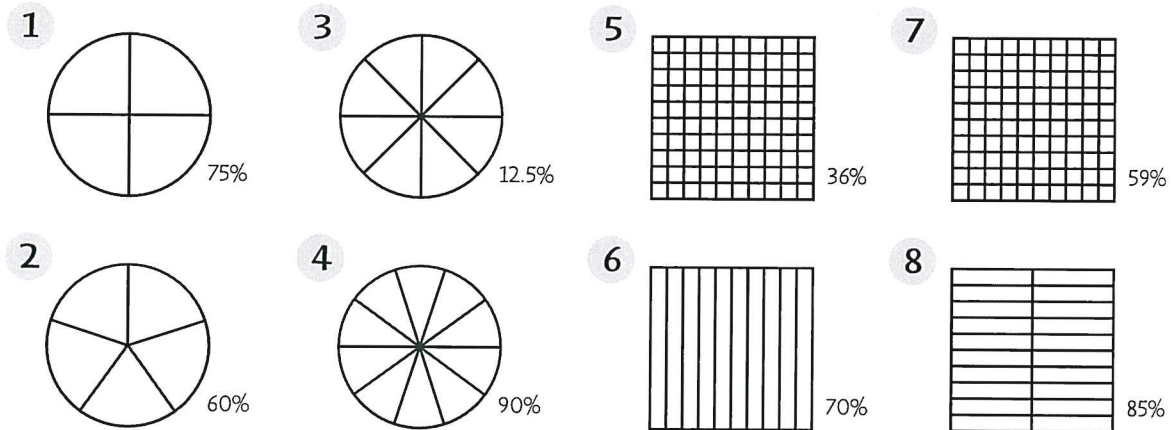
9 Complete the table.

Fractions	$\frac{1}{2}$						$\frac{1}{4}$	$\frac{3}{10}$	$\frac{4}{5}$
Decimals	0·5			0·03	0·72	0·4			
Percentages	50%	17%	90%						

10 What percentage of the boxes contain:
  a) ticks   [   ] %
  b) crosses [   ] %
  c) circles [   ] %

	✓	O	O	✗		O	✓
O		O	✓		✓	O	
	O		O	✗			O
✓	✗	O		✓	O	O	
O		✓	O	O	✓	✗	O

Name: . . . .

Homework Sheet 14:   Percentages of Numbers

Examples 70% of £2·00 $= \frac{7}{10}$ of £2·00 75% of $160 = \frac{3}{4}$ of 160

$\frac{1}{10}$ of £2·00 $= 20p$ $\frac{1}{4}$ of $160 = 40$

$\frac{7}{10}$ of £2·00 $= 7 \times 20p$ $\frac{3}{4}$ of $160 = 3 \times 40$

$= £1·40$ $= 120 + 3p$

Find 30% of:

1 80   ...24...

2 500   . . . .

3 £2·50   . . . .

4 40p.   . . . .

Find 1% of:

5 6000   . . . .

6 £4·00   . . . .

7 250   . . . .

8 £75·00.   . . . .

Find 75% of:

9 800   . . . .

10 52   . . . .

11 £50·00   . . . .

12 12p.   . . . .

Work out:

13 10% of 39   . . . .

14 20% of 75   . . . .

15 50% of 11   . . . .

16 75% of 480   . . . .

17 1% of 260   . . . .

18 5% of 30   . . . .

19 40% of £1·20   . . . .

20 70% of £20·00   . . . .

21 25% of £3·60   . . . .

22 2% of £45·00   . . . .

23 60% of £1·50   . . . .

24 1% of £5·00   . . . .

25 There are 240 patients in a hospital.
20% of the patients are children. How many are adults?

26 Sourav's meal cost £4·50. Ainlee's meal cost 30% more.
How much did Ainlee's meal cost?

Y6

Name: ....

Homework Sheet 15: Ratio and Proportion

1

2

3

4

5
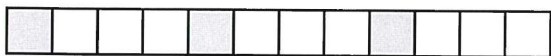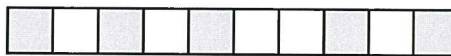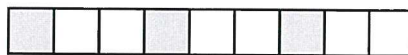
6
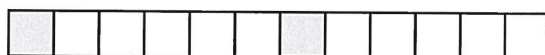
For each of the above patterns give:
a) the ratio of shaded squares to unshaded squares.
b) the proportion of shades squares as a fraction of the total number of squares.

1 a) 1 shaded square to every ☐ unshaded   b) $\dfrac{1}{\square}$

2 a) 1 shaded square to every ☐ unshaded   b) $\dfrac{1}{\square}$

3 a) 1 shaded square to every ☐ unshaded   b) $\dfrac{1}{\square}$

4 a) 1 shaded square to every ☐ unshaded   b) $\dfrac{1}{\square}$

5 a) 1 shaded square to every ☐ unshaded   b) $\dfrac{1}{\square}$

6 a) 1 shaded square to every ☐ unshaded   b) $\dfrac{1}{\square}$

7 A farmer has 2 cows to every 5 sheep. There are 64 cows on
   the farm. How many sheep are there?   ☐

8 There are 45 children in Year 6. Three in every five are boys.
   How many girls are there?   ☐

9 For every 2 packets of plain crisps sold, 7 flavoured packets are sold.
   Altogether 63 packets are sold. How many of these were plain?   ☐

10 In November, 3 in every 7 children in a class were absent at least once.
    There are 28 children in the class. How many of the children did not
    miss a day?   ☐

Homework Sheet 16:   Informal Methods For Addition

Examples	3579		3579	
	+ 1686		+ 1686	
Add largest	4000	Compensation	5579	(3579 + 2000)
value digits	1100		− 314	(2000 − 1686)
first.	150		5265	
	15			
	5265			

Add largest value digits first.

1
```
   2752
 + 1369
   3000
  ......
  ......
  ____
  ____
```

3
```
   3985
 + 1736
  ......
  ......
  ......
  ____
  ____
```

5
```
   6496
 + 2989
  ......
  ......
  ......
  ____
  ____
```

7
```
   5738
 + 2865
  ......
  ......
  ......
  ____
  ____
```

2
```
   4778
 + 2886
  ......
  ......
  ......
  ____
  ____
```

4
```
   5867
 + 3457
  ......
  ......
  ......
  ____
  ____
```

6
```
   4659
 + 3698
  ......
  ......
  ......
  ____
  ____
```

8
```
   3976
 + 3947
  ......
  ......
  ......
  ____
  ____
```

Use the compensation method.

9
```
   4329
 + 1884
   6329
 − ____
   ____
```

11
```
   5638
 + 3665
  ......
   ____
   ____
```

13
```
   3596
 + 2872
  ......
   ____
   ____
```

15
```
   5865
 + 1749
  ......
   ____
   ____
```

10
```
   3453
 + 1793
  ......
 − ____
   ____
```

12
```
   7244
   1939
  ......
   ____
   ____
```

14
```
   6742
 + 2588
  ......
   ____
   ____
```

16
```
   4274
 + 3695
  ......
   ____
   ____
```

Name: ....

Homework Sheet 17: Standard Method For Addition

Examples	759 + 438 ———— 1197 1	2483 + 1754 ———— 4237 1 1	6154 + 5377 ———— 11531 1 1

Remember to add the carried figure.

Work out

1 675
+ 219
————

2 928
+ 475
————

3 594
+ 538
————

4 836
+ 327
————

5 1187
+ 638
————

6 1346
+ 819
————

7 2283
+ 597
————

8 1759
+ 725
————

9 3568
+ 1266
————

10 2492
+ 1738
————

11 5937
+ 1765
————

12 2885
+ 2573
————

13 3653
+ 1266
————

14 4945
+ 1297
————

15 5376
+ 2628
————

16 6758
+ 3442
————

17 7527
+ 4649
————

18 8489
+ 5584
————

19 6762
+ 4963
————

20 9674
+ 6546
————

Homework Sheet 18:   Informal Method For Subtraction

Examples	5163				5163	
	− 1746				− 1746	
Counting up	54	(to make 1800)		Compensation	3163	(5163 − 2000)
	200	(to make 2000)			254	(2000 − 1746)
	3163	(to make 5163)			3417	
	3417				1	

Use counting up.

1   3523
  − 1769
   31
  ..200
    1523
    ‾‾‾‾‾

3   5615
  − 1587
    ....
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

5   6170
  − 3898
    ....
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

7   7246
  − 2979
    ....
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

2   4362
  − 2876
    ....
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

4   2237
  − 1939
    ....
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

6   4553
  − 1457
    ....
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

8   5734
  − 2845
    ....
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

Use compensation.

9   3241
  − 1648
    1241
    352
    ‾‾‾‾‾

11   4354
  − 2725
    ....
    ‾‾‾‾‾

13   7431
  − 1674
    ....
    ‾‾‾‾‾

15   9512
  − 4583
    ....
    ‾‾‾‾‾

10   7136
  − 3384
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

12   6483
  − 3891
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

14   5625
  − 2766
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

16   8343
  − 6758
    ....
    ‾‾‾‾‾
    ‾‾‾‾‾

Name: . . . .

Homework Sheet 19: Standard Method For Subtraction

Examples	$5\overset{7}{8}\overset{1}{5}8$	$\overset{4}{5}\overset{1}{4}\overset{6}{7}\overset{1}{0}$	$\overset{5}{6}\overset{12}{3}\overset{14}{5}\overset{1}{1}$
	$-\ 1674$	-1936	-2483
	4184	3534	3868

Work out

1 $\begin{array}{r} 3183 \\ -\ 1147 \\ \hline \end{array}$

6 $\begin{array}{r} 9407 \\ -\ 4736 \\ \hline \end{array}$

11 $\begin{array}{r} 8520 \\ -\ 4346 \\ \hline \end{array}$

16 $\begin{array}{r} 9854 \\ -\ 2678 \\ \hline \end{array}$

2 $\begin{array}{r} 4946 \\ -\ 1293 \\ \hline \end{array}$

7 $\begin{array}{r} 6091 \\ -\ 3548 \\ \hline \end{array}$

12 $\begin{array}{r} 6085 \\ -\ 1627 \\ \hline \end{array}$

17 $\begin{array}{r} 3262 \\ -\ 2789 \\ \hline \end{array}$

3 $\begin{array}{r} 5715 \\ -\ 3461 \\ \hline \end{array}$

8 $\begin{array}{r} 6234 \\ -\ 5763 \\ \hline \end{array}$

13 $\begin{array}{r} 7147 \\ -\ 4576 \\ \hline \end{array}$

18 $\begin{array}{r} 6608 \\ -\ 2893 \\ \hline \end{array}$

4 $\begin{array}{r} 8360 \\ -\ 3127 \\ \hline \end{array}$

9 $\begin{array}{r} 7859 \\ -\ 2889 \\ \hline \end{array}$

14 $\begin{array}{r} 4931 \\ -\ 2683 \\ \hline \end{array}$

19 $\begin{array}{r} 8379 \\ -\ 5385 \\ \hline \end{array}$

5 $\begin{array}{r} 7528 \\ -\ 3453 \\ \hline \end{array}$

10 $\begin{array}{r} 3672 \\ -\ 2736 \\ \hline \end{array}$

15 $\begin{array}{r} 5496 \\ -\ 4237 \\ \hline \end{array}$

20 $\begin{array}{r} 7713 \\ -\ 6986 \\ \hline \end{array}$

Name: . . . .

Homework Sheet 20:   Understanding Multiplication

Complete each table.

1

$\times 10$	
4	$\to$ 40
0·8	$\to$
$\to$ 35	
$\to$ 2·4	
$\to$ 0·7	

2

$\times 7$	
5	$\to$
0·8	$\to$
$\to$ 210	
$\to$ 0·49	
$\to$ 6·3	

3

$\times 100$	
7	$\to$
0·3	$\to$
$\to$ 2500	
$\to$ 520	
$\to$ 8	

Write the missing number in the box.

4 $\boxed{} \times 9 = 72$

5 $3 \times \boxed{} = 1·2$

6 $\boxed{} \times 1 = 1·5$

7 $6 \times \boxed{} = 0·48$

8 $\boxed{} \times 0·5 = 50$

9 $0·3 \times \boxed{} = 1·8$

10 $\boxed{} \times 7 = 0·14$

11 $0·79 \times \boxed{} = 7·9$

12 $\boxed{} \times 0·9 = 5·4$

13 $8 \times \boxed{} = 640$

14 $\boxed{} \times 7 = 0·42$

15 $12 \times \boxed{} = 0$

16 $\boxed{} \times 100 = 57$

17 $9 \times \boxed{} = 8·1$

18 $\boxed{} \times 5 = 300$

Complete each multiplication square.

19

$\times$					
3					15
	56			72	
		20			50
	28		24		
		14		63	

20

$\times$					
	27		18		
		35			70
			48		
	54				60
		20		8	

Name: ....

Homework Sheet 21: Multiplication Facts Revision 1

Complete by writing the missing number in the box.

1 $8 \times 6 = \boxed{}$

2 $9 \times 4 = \boxed{}$

3 $8 \times 9 = \boxed{}$

4 $7 \times 7 = \boxed{}$

5 $\boxed{} \times 8 = 64$

6 $\boxed{} \times 5 = 35$

7 $\boxed{} \times 7 = 63$

8 $\boxed{} \times 6 = 4 \cdot 2$

9 $\boxed{} \div 8 = 7$

10 $\boxed{} \div 3 = 0 \cdot 9$

11 $\boxed{} \div 9 = 6$

12 $\boxed{} \div 5 = 0 \cdot 8$

13 $8 \times 7 = \boxed{}$

14 $0 \cdot 5 \times 6 = \boxed{}$

15 $0 \cdot 4 \times 9 = \boxed{}$

16 $9 \times 8 = \boxed{}$

17 $\boxed{} \times 4 = 28$

18 $\boxed{} \times 7 = 2 \cdot 1$

19 $\boxed{} \times 6 = 54$

20 $\boxed{} \times 5 = 4 \cdot 5$

21 $\boxed{} \div 9 = 7$

22 $\boxed{} \div 7 = 0 \cdot 8$

23 $\boxed{} \div 8 = 0 \cdot 5$

24 $\boxed{} \div 6 = 8$

25 Complete the multiplication square.

×	5	7	3	10	4	8	2	6	9
3									
8									
10									
2									
9									
5									
7									
4									
6									

Name: ....

Homework Sheet 22:   Multiplication Facts Revision 2

Complete by writing the missing number in the box.

1 $4 \times 8 =$ ☐

2 $7 \times 6 =$ ☐

3 $0.6 \times 9 =$ ☐

4 $8 \times 3 =$ ☐

5 ☐ $\times 7 = 5.6$

6 ☐ $\times 6 = 36$

7 ☐ $\times 4 = 3.6$

8 ☐ $\times 8 = 56$

9 ☐ $\div 7 = 9$

10 ☐ $\div 9 = 0.8$

11 ☐ $\div 5 = 9$

12 ☐ $\div 8 = 0.6$

13 $0.9 \times 6 =$ ☐

14 $6 \times 7 =$ ☐

15 $6 \times 4 =$ ☐

16 $0.3 \times 9 =$ ☐

17 ☐ $\times 6 = 48$

18 ☐ $\times 10 = 5$

19 ☐ $\times 7 = 3.5$

20 ☐ $\times 9 = 81$

21 ☐ $\div 8 = 0.8$

22 ☐ $\div 7 = 0.7$

23 ☐ $\div 3 = 7$

24 ☐ $\div 9 = 0.7$

25 Complete the multiplication square.

×	4	9	2	6	10	3	8	5	7
5									
7									
3									
4									
10									
2									
6									
9									
8									

Name: ....

Homework Sheet 23: Multiplying/Dividing By 10 or 100

Examples	$2{\cdot}36 \times 10 = 23{\cdot}6$	$48 \div 10 = 4{\cdot}8$
	$2{\cdot}36 \times 100 = 236$	$48 \div 100 = 0{\cdot}48$
	$3{\cdot}2 \times 10 = 32$	$5 \div 10 = 0{\cdot}5$
	$3{\cdot}2 \times 100 = 320$	$5 \div 100 = 0{\cdot}05$

Work out

1 $2{\cdot}7 \times 10$ ....

5 $44{\cdot}5 \times 10$ ....

9 $4 \div 10$ ....

2 $3{\cdot}1 \times 100$ ....

6 $0{\cdot}69 \times 100$ ....

10 $28 \div 100$ ....

3 $1{\cdot}38 \times 10$ ....

7 $12 \div 10$ ....

11 $73 \div 10$ ....

4 $1{\cdot}72 \times 100$ ....

8 $7 \div 100$ ....

12 $6 \div 100$ ....

Complete by writing the missing numbers.

13 $3{\cdot}5 \times \boxed{} = 35$

19 $6 \div \boxed{} = 0{\cdot}6$

14 $\boxed{} \times 100 = 96$

20 $\boxed{} \div 100 = 0{\cdot}35$

15 $14 \div \boxed{} = 0{\cdot}14$

21 $1{\cdot}88 \times \boxed{} = 18{\cdot}8$

16 $\boxed{} \div 10 = 4{\cdot}8$

22 $\boxed{} \times 100 = 615$

17 $5{\cdot}1 \times \boxed{} = 510$

23 $2 \div \boxed{} = 0{\cdot}02$

18 $\boxed{} \times 10 = 263$

24 $\boxed{} \div 10 = 3{\cdot}9$

Complete each table.

25

$\times 10$		
0·5	→	5
0·47	→	
	→	9·3
2·6	→	
	→	8
0·09	→	
	→	0·1

26

$\div 10$		
1·8	→	0·18
	→	0·55
22	→	
	→	7·9
0·3	→	
	→	0·3
21·4	→	

27

$\times 100$		
6·8	→	680
	→	159
0·25	→	
	→	34
0·03	→	
	→	70
4·5	→	

Y6

Homework Sheet 24:   Doubling and Halving

Examples

Double $0.59 = (0.5 \times 2) + (0.09 \times 2)$ Half of $15.3 = (15 \div 2) + (0.3 \div 2)$

$\qquad\qquad\quad = 1.0 + 0.18$ $\qquad\qquad\qquad\qquad = 7.5 + 0.15$

$\qquad\qquad\quad = 1.18$ $\qquad\qquad\qquad\qquad\quad = 7.65$

Work out

1 54×2 ....   **5** 6.2×2 ....   **9** 970×2 ....

2 9.9×2 ....   **6** 9800×2 ....   **10** 7.3×2 ....

3 710×2 ....   **7** 860×2 ....   **11** 5900×2 ....

4 8700×2 ....   **8** 7.9×2 ....   **12** 8.5×2 ....

13 $94 \div 2$ ....   **17** $13\,200 \div 2$ ....   **21** $1740 \div 2$ ....

14 $128 \div 2$ ....   **18** $18.3 \div 2$ ....   **22** $14.1 \div 2$ ....

15 $1160 \div 2$ ....   **19** $1260 \div 2$ ....   **23** $13\,800 \div 2$ ....

16 $16.2 \div 2$ ....   **20** $15.7 \div 2$ ....   **24** $19.5 \div 2$ ....

25 Work out the 16 times-table by doubling the 8 times-table.

EIGHTS	8	16								80
SIXTEENS										

Use halving to complete the second and third problems.

26 $\frac{1}{3}$ of $900 =$ ☐   **27** $\frac{1}{3}$ of $390 =$ ☐   **28** $\frac{1}{3}$ of $21 =$ ☐

$\quad\frac{1}{6}$ of $900 =$ ☐ $\qquad\qquad\quad\frac{1}{6}$ of $390 =$ ☐ $\qquad\qquad\quad\frac{1}{6}$ of $21 =$ ☐

$\quad\frac{1}{12}$ of $900 =$ ☐ $\qquad\qquad\quad\frac{1}{12}$ of $390 =$ ☐ $\qquad\qquad\quad\frac{1}{12}$ of $21 =$ ☐

Name: ....

Homework Sheet 25:   Informal Method For Multiplication

Example	458 × 37	×	400	50	8	
		30	12 000	1500	240	13 740
		7	2800	350	56	3 206

458 × 37 = 16 946

Work out

1

×	50	3	
10	500	30	530
6			

53 × 16 = _____

2

×	20	7	
20			
9			

27 × 29 = _____

3

×	30	6	
20			
5			

36 × 25 = _____

4

×	90	2	
50			
3			

92 × 53 = _____

5

×	40	8	
30			
7			

48 × 37 = _____

6

×	80	5	
40			
2			

85 × 42 = _____

7

×	100	30	7	
40	4000	1200	280	5480
8				

137 × 48 = _____

8

×	300	60	4	
50				
4				

364 × 54 = _____

9

×	400	20	9	
20				
6				

429 × 26 = _____

10

×	300	50	8	
10				
9				

358 × 19 = _____

11

×	200	90	4	
60				
8				

294 × 68 = _____

12

×	500	70	6	
20				
7				

576 × 27 = _____

Name: . . . .

Homework Sheet 26:   Standard Method For Multiplication

Examples	3695	1842	
	× 7	× 6	Work from the
	25865	11052	right and carry.
	4 6 3	5 2 1	

Work out

1 1463
× 5
———

7 1925
× 9
———

13 5289
× 2
———

19 3870
× 7
———

2 4357
× 2
———

8 2847
× 5
———

14 2596
× 7
———

20 5925
× 5
———

3 1682
× 6
———

9 1409
× 7
———

15 3938
× 4
———

21 2764
× 8
———

4 2750
× 4
———

10 2742
× 3
———

16 2460
× 9
———

22 6058
× 3
———

5 5639
× 3
———

11 3269
× 8
———

17 2547
× 6
———

23 3783
× 9
———

6 1485
× 8
———

12 2158
× 6
———

18 17534
× 8
———

24 4390
× 6
———

Name: ....

Homework Sheet 27:   Multiplication of Decimals

Example	6.13×2	$6.0 \times 2 = 12.0$
		$0.1 \times 2 = 0.2$
		$0.03 \times 2 = \underline{0.06}$
		$6.13 \times 2 = \underline{12.26}$

Work out

1 $4.00 \times 2 =$ ....
$0.2 \times 2\ =$ ....
$0.05 \times 2 =$ _____
$4.25 \times 2 =$ _____

2 $5.0 \times 3\ =$ ....
$0.9 \times 3\ =$ ....
$0.03 \times 3 =$ _____
$5.93 \times 3 =$ _____

3 $8.0 \times 5\ =$ ....
$0.7 \times 5\ =$ ....
$0.01 \times 5 =$ _____
$8.71 \times 5 =$ _____

4 $2.0 \times 9\ =$ ....
$0.6 \times 9\ =$ ....
$0.04 \times 9 =$ _____
$2.64 \times 9 =$ _____

5 $7.0 \times 6\ =$ ....
$0.3 \times 6\ =$ ....
$0.08 \times 6 =$ _____
$7.38 \times 6 =$ _____

6 $4.00 \times 4 =$ ....
$0.5 \times 4\ =$ ....
$0.04 \times 4 =$ _____
$4.54 \times 4 =$ _____

7 $6.0 \times 7\ =$ ....
$0.3 \times 7\ =$ ....
$0.08 \times 7 =$ _____
$6.38 \times 7 =$ _____

8 $2.0 \times 8\ =$ ....
$0.9 \times 8\ =$ ....
$0.06 \times 8 =$ _____
$2.96 \times 8 =$ _____

9 $8.0 \times 3\ =$ ....
$0.4 \times 3\ =$ ....
$0.07 \times 3 =$ _____
$8.47 \times 3 =$ _____

10 $3.0 \times 9\ =$ ....
$0.5 \times 9\ =$ ....
$0.08 \times 9 =$ _____
$3.58 \times 9 =$ _____

11 $6.00 \times 5 =$ ....
$0.3 \times 5\ =$ ....
$0.09 \times 5 =$ _____
$6.39 \times 5 =$ _____

12 $3.0 \times 8\ =$ ....
$0.5 \times 8\ =$ ....
$0.07 \times 8 =$ _____
$3.57 \times 8 =$ _____

13 $8.0 \times 4\ =$ ....
$0.7 \times 4\ =$ ....
$0.03 \times 4 =$ _____
$8.73 \times 4 =$ _____

14 $5.0 \times 6\ =$ ....
$0.6 \times 6\ =$ ....
$0.04 \times 6 =$ _____
$5.64 \times 6 =$ _____

15 $7.0 \times 7\ =$ ....
$0.9 \times 7\ =$ ....
$0.02 \times 7 =$ _____
$7.92 \times 7 =$ _____

Name: ....

Homework Sheet 28:   Standard Method For Division

Examples	$\begin{array}{r} 34 r2 \\ 7\overline{)240} \\ -21 \\ \hline 30 \\ -28 \\ \hline 2 \end{array}$	(3×7) (4×7)	$\begin{array}{r} 48 r3 \\ 6\overline{)291} \\ 24 \\ \hline 51 \\ 48 \\ \hline 3 \end{array}$	(4×6) (8×6)

Work out

1
$5\overline{)287}$
___ (5 × 5)
......
___ (7 × 5)
....

4
$8\overline{)373}$
___ (×8)
......
___ (×8)
....

7
$6\overline{)299}$
___ (×6)
......
___ (×6)
....

10
$7\overline{)410}$
___ (×7)
......
___ (×7)
....

2
$9\overline{)670}$
___ (7 × 9)
......
___ (4 × 9)
....

5
$7\overline{)471}$
___ (×7)
......
___ (×7)
....

8
$3\overline{)263}$
___ (×3)
......
___ (×3)
....

11
$5\overline{)468}$
___ (×5)
......
___ (×5)
....

3
$6\overline{)171}$
___ (2 × 6)
......
___ (8 × 6)
....

6
$4\overline{)381}$
___ (×4)
......
___ (×4)
....

9
$9\overline{)241}$
___ (×9)
......
___ (×9)
....

12
$8\overline{)606}$
___ (×8)
......
___ (×8)
....

13 Five people can travel in one car and altogether there are 148 people to transport. How many cars are needed? ☐
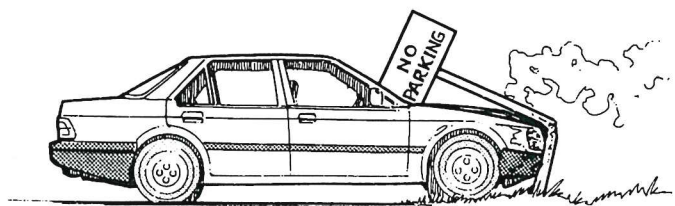
14 I have 120 cans of drink. One box holds 8 cans. How many boxes can I fill? ☐

Name: ....

Homework Sheet 29: Long Division

Examples		
	3 5	2 4
	18$\overline{)630}$	26$\overline{)624}$
	$-\underline{5\,4}$ (3 × 18)	$-\underline{5\,2}$ (2 × 26)
	9 0	1 0 4
	$-\underline{9\,0}$ (5 × 18)	$-\underline{1\,0\,4}$ (4 × 26)
	0	0

Work out

1
15$\overline{)390}$
$\underline{\quad}$ (2 × 15)
......
$\underline{\quad\quad}$ (6 × 15)
$\underline{\quad}$

4
17$\overline{)731}$
$\underline{\quad}$ (×17)
......
$\underline{\quad\quad}$ (×17)
$\underline{\quad}$

7
25$\overline{)950}$
$\underline{\quad}$ (×25)
......
$\underline{\quad\quad}$ (×25)
$\underline{\quad}$

2
13$\overline{)455}$
$\underline{\quad}$ (3 × 13)
......
$\underline{\quad\quad}$ (5 × 13)
$\underline{\quad}$

5
23$\overline{)575}$
$\underline{\quad}$ (×23)
......
$\underline{\quad\quad}$ (×23)
$\underline{\quad}$

8
19$\overline{)665}$
$\underline{\quad}$ (×19)
......
$\underline{\quad\quad}$ (×19)
$\underline{\quad}$

3
22$\overline{)924}$
$\underline{\quad}$ (4 × 22)
......
$\underline{\quad\quad}$ (2 × 22)
$\underline{\quad}$

6
34$\overline{)714}$
$\underline{\quad}$ (×34)
......
$\underline{\quad\quad}$ (×34)
$\underline{\quad}$

9
32$\overline{)768}$
$\underline{\quad}$ (×32)
......
$\underline{\quad\quad}$ (×32)
$\underline{\quad}$

10 There are 208 children in a school.
One minibus holds 13 children.
How many mini buses are
needed for a whole school trip?
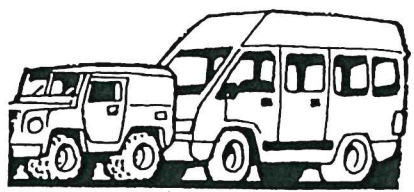
11 I have 190 plants and one tray takes 12 plants.
How many trays do I need?

Homework Sheet 30: Long Multiplication

Examples	354	269
	× 17	× 43
	3540 (354 × 10)	10760 (269 × 40)
	2478 (354 × 7)	807 (269 × 3)
	6018	11567
	1 1	1

Work out

1 467
× 13
.... (467 × 10)
——— (467 × 3)
———

2 189
× 24
.... (189 × 20)
——— (189 × 4)
———

3 236
× 35
.... (236 × 30)
——— (236 × 5)
———

4 352
× 18
.... (352 × 10)
——— (352 × 8)
———

5 174
× 34
....
———
———

6 463
× 27
....
———
———

7 581
× 43
....
———
———

8 427
× 25
....
———
———

9 756
× 16
....
———
———

10 395
× 37
....
———
———

11 628
× 59
....
———
———

12 547
× 28
....
———
———

13 Water is pumped at 225 litres per minute.
How many litres of water are pumped in 36 minutes?
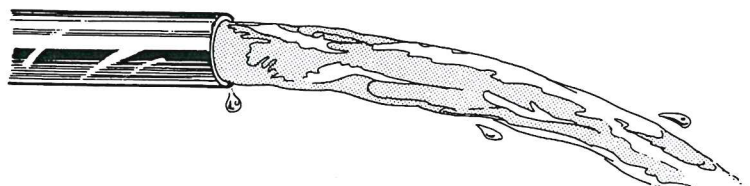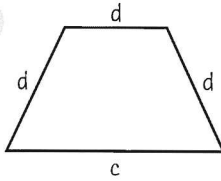
Homework Sheet 31: Writing A Formula

Examples

If $a = 4$, $2a = 8$
$a + 1 = 5$
$a - 1 = 3$
$\dfrac{a}{2} = 2$

$p = 2a + 2b$, where $p = $ perimeter
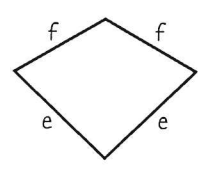
Write a formula for the perimeter (p) of each quadrilateral.

1

$p = $ ....

2
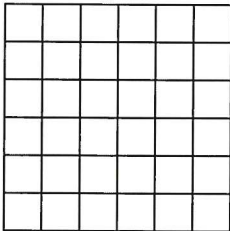
$p = $ ....

3

$p = $ ....
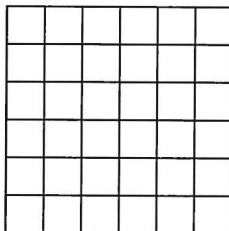
Draw and label the shape whose perimeter is given by each formula.

4 a triangle
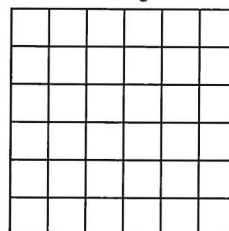
$p = 2a + b$

5 a pentagon

$p = 2a + 2b + c$

6 a hexagon

$p = 4a + b + c$

Write a formula to find the cost (c) of:

7 x tickets at £12 each. $c = $ ....

8 6 rolls at y pence each and 2 cakes at z pence each. $c = $ ....

Write a formula to answer each question.

9 Raj has £100. He spends £x every day.
How much money (m) does he have left after one week? $m = $ ....

10 A car journey of x miles takes 3 hours.
What is the speed (s) of the car in miles per hour? $s = $ ....

Name: . . . .

Homework Sheet 32:   Crossnumber Puzzles

Use the clues to fill in the grids.

Clues across

1. $164 + 81$
4. $3 \times 3 \times 3 \times 3$
6. 16×15
7. $126 - 78$
8. $5030 \div 10$
11. 15^2
13. $325 + 96$
15. $1500 \div 100$
16. $1001 - 132$

Clues down

1. $132 \div 6$
2. $542 - 97$
3. $2 \cdot 5 \times 200$
4. 12×7
5. $2001 - 126$
9. $160 \div 5$
10. $682 + 59$
12. $6 \times 6 \times 6$
14. $500 \div 20$

Clues across

1. 6×49
4. $152 \div 2$
6. $4034 - 43$
8. $1 \cdot 9 \times 30$
9. 41×6
11. $688 + 67$
12. $571 - 89$
14. $185 \div 5$
16. 32×25
17. $11^2 - 7^2$

Clues down

1. 47×5
2. $2005 - 1008$
3. $70 \times 0 \cdot 7$
5. $529 + 87$
7. $1000 \div 8$
10. $5555 - 1018$
11. $0 \cdot 72 \times 1000$
12. $960 \div 20$
13. $12^2 - 8^2$
15. $0 \cdot 8 \times 90$

Homework Sheet 33:   Money And Percentages

Complete each bill and find the change from £50·00.

1 Shoes   £29·99

Tie   £ 7·45

Belt   £ 5·69

Total   £ [ ]

Change   £ [ ]

2 Petrol   £27·63

Meal   £ 6·49

Magazine £ 2·25

Total   £ [ ]

Change   £ [ ]

3 Video   £16·99

Books   £ 7·48

Jigsaws £ 7·48

Total   £ [ ]

Change   £ [ ]

4 In its January sale Dixons reduces all its prices by 20%. What is the new price of the following items?

TV   £400   £ ....

Radio   £25   £ ....

Computer   £650   £ ....

Battery   £3·60   £ ....

5 A firm awards all its employees a 5% pay increase. What would these groups of workers be paid if these were their monthly salaries before the increase?

Directors   £10 000   £ ....

Managers   £3600   £ ....

Salesmen   £2500   £ ....

Cleaners   £480   £ ....

6 Complete the table by converting the pounds to the foreign currencies.

U.K. (pounds)	Cyprus (pounds)	Denmark (kroner)	Sweden (kroner)
£1	0·95	12·2	15·5
£2			
£10			
£100			
£150			

Homework Sheet 34:   Metric Measures – Length

You need to know that:

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

Complete by writing the missing number.

1 1873 m = ☐ km

2 249 m = ☐ km

3 6·51 km = ☐ m

4 0·042 km = ☐ m

5 743 cm = ☐ m

6 9 cm = ☐ m

7 58 m = ☐ cm

8 205 m = ☐ cm

9 25 mm = ☐ cm

10 25 mm = ☐ m

11 0·9 cm = ☐ mm

12 0·03 m = ☐ mm

13 A pile of CDs is 40 centimetres high. Each CD is 8 millimetres thick.
How many CDs are there in the pile? ☐

14 A football pitch has a perimeter of 350 metres.
A player jogs round the pitch 12 times.
How far does he run altogether in kilometres? ☐ km

15 A field has a perimeter of 1·48 kilometres.
It is 460 metres long. How wide is the field? ☐ m

16 The circumference of a ball is 60 centimetres.
The ball rolls 16·2 metres.
How many times does the ball make one complete roll? ☐

17 A plank of wood is 3·6 metres long. 85 cm is sawn off.
How long is the remaining plank? ☐ m

18 A staple is made from 40 mm of wire.
How many staples can be made from 10 metres of wire? ☐

Name: ....

Homework Sheet 35: Mass

Examples:	1000 g = 1 kg	1000 kg = 1 tonne

Complete by writing the missing number.

1 1·56 kg = ☐ g

2 2368 g = ☐ kg

3 3 t = ☐ kg

4 86 kg = ☐ t

5 5·391 kg = ☐ g

6 7400 g = ☐ kg

7 0·72 t = ☐ kg

8 2548 kg = ☐ t

9 3·2 kg = ☐ g

10 4160 g = ☐ kg

11 9·5 t = ☐ kg

12 673 kg = ☐ t

13 A packet of biscuits weight 125 g.
What is the weight of 50 packets?   ☐ kg

14 A lorry weighs 4·65 tonnes. It carries a load of 748 kg.
What is the total weight of the lorry and its load?   ☐ t

15 A spoonful of sugar contains 5 g.
How many spoonfuls are there in a 2 kg packet?   ☐

16 A builder needs 3·6 tonnes of cement.
How many 40 kg sacks will he need to order?   ☐

17 Eric weighs 83·25 kg. Ernie weighs 600 g less.
How much does Ernie weigh?   ☐ kg

18 A cake weighs 3·6 kg. It is cut into 20 equal slices.
What is the weight of each slice?   ☐ g

Name: . . . .

Homework Sheet 36: Capacity

Examples	1000 ml = 1 litre	10 ml = 1 cl	100 cl = 1 litre

Complete by writing the missing number in the box.

1 90 ml = ⬚ cl

2 6 cl = ⬚ ml

3 4·36 litres = ⬚ ml

4 200 ml = ⬚ litres

5 150 cl = ⬚ litres

6 0·7 litres = ⬚ cl

7 120 ml = ⬚ cl

8 500 cl = ⬚ ml

9 2·7 litres = ⬚ ml

10 8390 ml = ⬚ litres

11 10 cl = ⬚ litres

12 6 litres = ⬚ cl

13 How much orange juice is needed to fill sixty 25 cl glasses? ⬚ litres

14 Jeremy takes 60 ml of medicine every day.
How much medicine will he need for three weeks? ⬚ litres

15 An ice cream tub contains 1·5 litres. 85 centilitres is eaten.
How much ice cream is left in the tub? ⬚ ml

16 A pen holds 20 ml of ink.
How many times can it be filled from a 30 cl bottle? ⬚

17 There is 3·75 litres of water in a bowl.
68 cl is added. How much water is in the bowl now? ⬚ litres

18 A sprinkler uses 120 ml of water each second.
How much water does it use in one minute? ⬚ litres

Name: ....

Homework Sheet 37:   Reading Scales

Write each measurement in the box.

1 [m]   [m]

0 ‖‖‖‖‖‖‖‖‖ 1 m

7 [l]   [l]

0 ‖‖‖‖‖‖‖‖‖‖‖‖ 0.2 litres

2 [mm]   [mm]

0 ‖‖‖‖‖‖‖‖‖‖‖‖ 100 mm

8 [g]   [g]

0 ‖‖‖‖‖‖‖‖‖‖‖ 500 g

3 [cm]   [cm]

0 ‖‖‖‖‖‖‖‖‖‖ 10 cm

9 [N]   [N]

0 ‖‖‖‖‖ 5 Newtons

4 [g]   [g]

0 ‖‖‖‖‖‖‖‖‖‖ 1000 g

10 [kg]   [kg]

0 ‖‖‖‖‖ 0.5 kg

5 [kg]   [kg]

0 ‖‖‖‖‖‖‖‖‖‖‖ 1 kg

11 [kg]   [kg]

0 ‖‖‖‖‖‖‖‖‖‖‖‖ 0.1 tons

6 [ml]   [ml]

0 ‖‖‖‖‖‖‖‖‖‖‖ 1000 ml

12 [l]   [l]

0 ‖‖‖‖‖‖‖‖‖‖‖‖ 10 litres

Name: . . . .
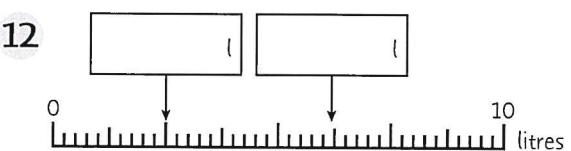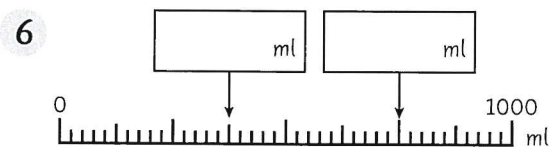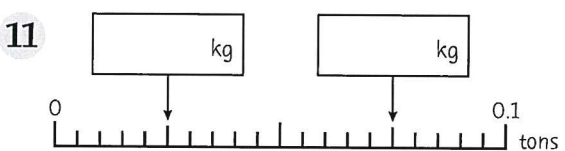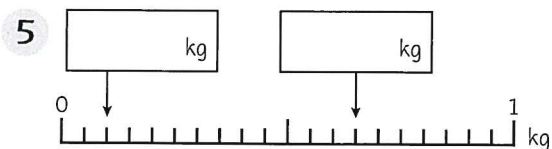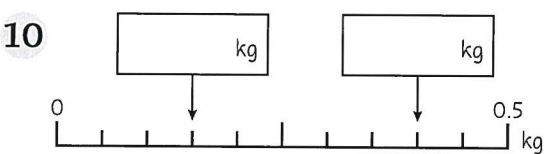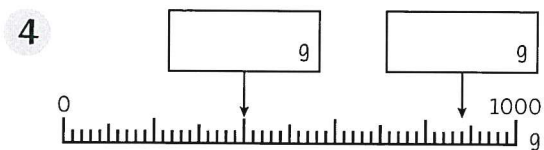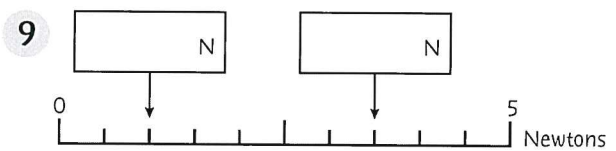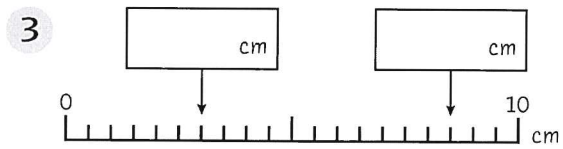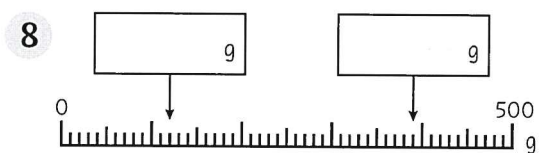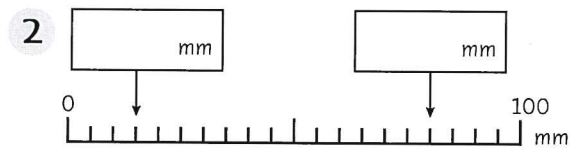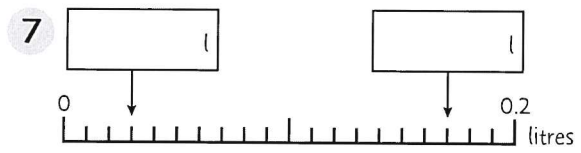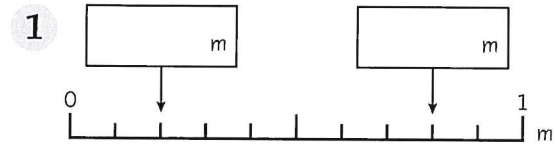
Homework Sheet 38: Imperial Units

You need to know these imperial units and their approximate metric equivalents.

LENGTH	MASS	CAPACITY
1 inch ≈ 2·5 cm	1 ounce ≈ 30 g	1 pint ≈ 0·6 litres
1 foot ≈ 30 cm	1 kg ≈ 2·2 pounds (lb)	1 gallon ≈ 4·5 litres
1 yard ≈ 90 cm		
1 mile ≈ 1·6 km	The sign '≈' means is approximately equal to.	
8 km ≈ 5 miles		

Write down the imperial unit you would use to measure the following:

LENGTHS

1 a garden fence   . . . .

2 a paperback book   . . . .

3 the River Thames   . . . .

4 a walking stick   . . . .

MASSES

5 a tennis ball   . . . .

6 a bag of potatoes   . . . .

CAPACITIES

7 a water tank   . . . .

8 a vacuum flask   . . . .

Complete by putting > or < in the box.

9 6 feet [   ] 1·5 metres

10 10 pounds [   ] 5 kg

11 8 miles [   ] 12 km

12 5 gallons [   ] 22 litres

13 6 inches [   ] 14 cm

14 12 ounces [   ] 400 g

15 9 yards [   ] 8 metres

16 7 pints [   ] 4 litres

17 20 miles [   ] 35 km

18 12 gallons [   ] 60 litres

19 50 pounds [   ] 20 kg

20 20 yards [   ] 19 metres

Approximate to the nearest:

21 10 inches . . . . . cm

22 4 inches . . . . . cm

23 12 inches . . . . . cm

24 30 inches . . . . . cm

25 6 kg . . . . . lb

26 10 kg . . . . . lb

27 25 kg . . . . . lb

28 4 kg . . . . . lb

29 10 pints . . . . . litres

30 8 pints . . . . . litres

31 3 pints . . . . . litres

32 15 pints . . . . . litres

Name: . . . .

Homework Sheet 39:   Area and Perimeter

Examples   All lengths are in centimetres.
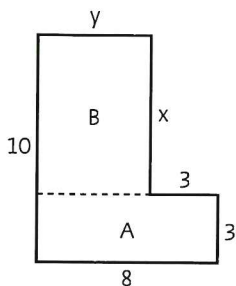
$x = 10 - 3 = 7\,cm$ $\qquad$ $y = 8 - 3 = 5\,cm$

Area $=$ Area of A $+$ Area of B $= 24\,cm^2 + 35\,cm^2 = 59\,cm^2$

Perimeter $= (10 + 8 + 3 + 3 + 7 + 5)\,cm = 36\,cm$
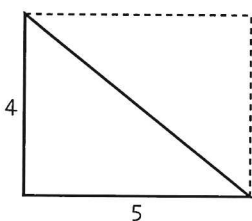
Area of triangle $=$ Area of rectangle $\div\,2$
$\qquad\qquad\qquad = 20\,cm^2 \div 2$
$\qquad\qquad\qquad = 10\,cm^2$

For each shape work out the area (A) and the perimeter (P). All lengths are in cm.

1

A = ... cm²

P = ... cm

2

A = ... cm²

P = ... cm

3

A = ... cm²

P = ... cm

4
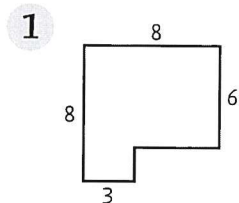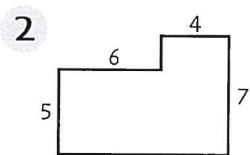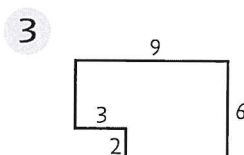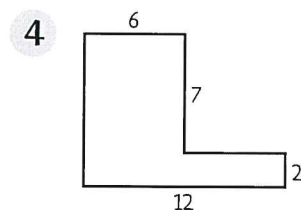
A = ... cm²

P = ... cm

Work out the area of each triangle

5

A = ... cm²

6

A = ... cm²

7

A = ... cm²

8

A = ... cm²

Name: . . . .
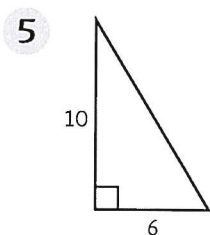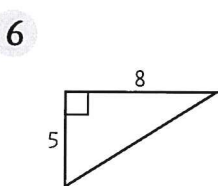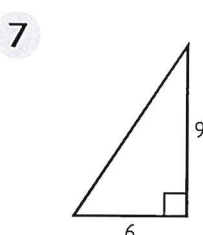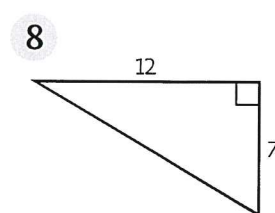
Homework Sheet 40: Time Problems

Turkey must be cooked for 40 minutes for every kilogram. Write how long the meat needs to be cooked if the turkey weighs:

1 4 kg   ☐ h ☐ mins

2 7 kg   ☐ h ☐ mins

3 5 kg   ☐ h ☐ mins
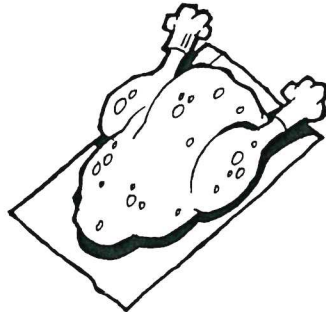
4 9·5 kg   ☐ h ☐ mins

5 6 kg   ☐ h ☐ mins

6 8·5 kg   ☐ h ☐ mins

7 Complete the table showing the cooking times for turkey.

WEIGHT (Kg)	START	FINISH
10	11:20	
3·5	14:00	
5	09:55	
7·5	14:50	
4·5		12:25
9		15:00
8		19:45
6·5		14:10

Complete by filling in the boxes.

8 A car left Carlisle at 22:40. It arrived at Brighton at 07:10.
   The journey took ☐ hours ☐ minutes.

9 A concert began at 19:45. It lasted for 2 hours 50 minutes.
   It finished at ☐ .

10 A newspaper shop is open for 5 hours and 40 minutes every Sunday morning.
   It closes at 13:00. It opens at ☐ .

Name: ....

Homework Sheet 41: Co-ordinates
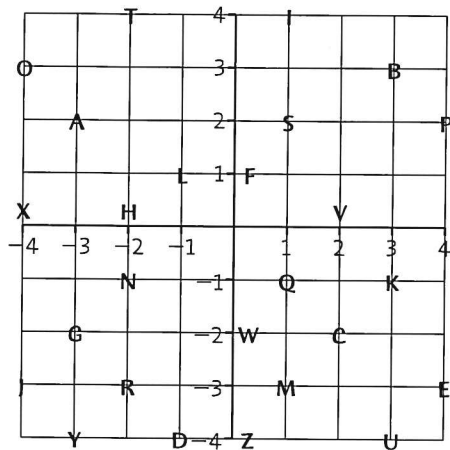
Use the grid to work out the letters.
Unscramble the letters to form a European country.

Example

$(-2, -1)$ $(4, -3)$ $(0, -2)$ $(-1, -4)$ $(4, -3)$ $(1, 2)$

NEWDES makes SWEDEN

1 $(-2, -1)$ $(-4, 3)$ $(0, -2)$ $(-3, 2)$ $(-3, -4)$ $(-2, -3)$

.... makes ....

2 $(-1, -4)$ $(-4, 3)$ $(4, 2)$ $(-1, 1)$ $(-3, 2)$ $(-2, -1)$

.... makes ....

3 $(3, -1)$ $(4, -3)$ $(-3, -4)$ $(-2, -3)$ $(3, -4)$ $(-2, 4)$

.... makes ....

4 $(-2, -3)$ $(-3, 2)$ $(-3, -4)$ $(-3, -2)$ $(3, -4)$ $(-2, -1)$ $(-2, 0)$

.... makes ....

5 $(1, 4)$ $(3, 3)$ $(4, -3)$ $(-3, -2)$ $(-1, 1)$ $(3, -4)$ $(1, -3)$

.... makes ....

6 $(-2, -3)$ $(4, -3)$ $(0, 1)$ $(2, -2)$ $(-3, 2)$ $(-2, -1)$

.... makes ....

7 Plot each set of co-ordinates in the order given to form two sides of a rectangle. Complete the rectangle and write the missing co-ordinate.

$(1, 4)$ $(1, -4)$ $(-3, -4)$ $($ $)$

$(-2, 3)$ $(4, 3)$ $(4, -2)$ $($ $)$

$(4, 2)$ $(1, 3)$ $(-1, -3)$ $($ $)$

$(-4, 1)$ $(-1, 4)$ $(4, -1)$ $($ $)$
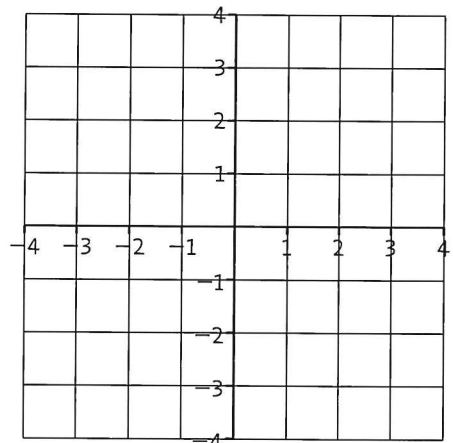
Name: . . . .

Homework Sheet 42:   Two-dimensional Shapes

scalene	quadrilateral	kite	octagon
isosceles	parallelogram	trapezium	hexagon
equilateral	rhombus	pentagon	heptagon

1 Use the above names to label each shape.
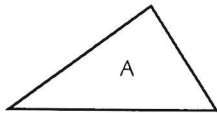
. . . .
triangle

. . . .

. . . .

. . . .

. . . .

. . . .

. . . .
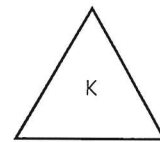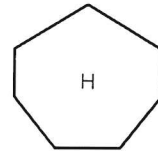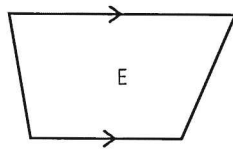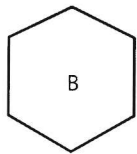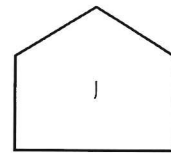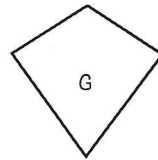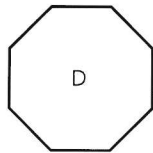
. . . .
triangle

. . . .

. . . .
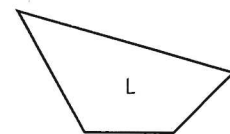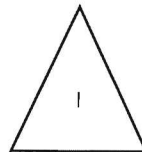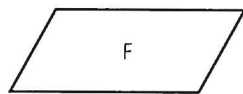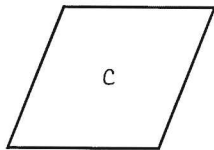
. . . .
triangle

. . . .

2 Write the letters of the shapes which:

a) are irregular . . . .

b) have one or more pairs of parallel lines . . . .

c) have all equal opposite sides . . . .

d) have one or more pairs of equal sides . . . .

e) have one or more pairs of equal angles . . . .

f) have one or more pairs of equal adjacent angles. . . . .

Name: . . . .

Homework Sheet 43: Three-dimensional Shapes
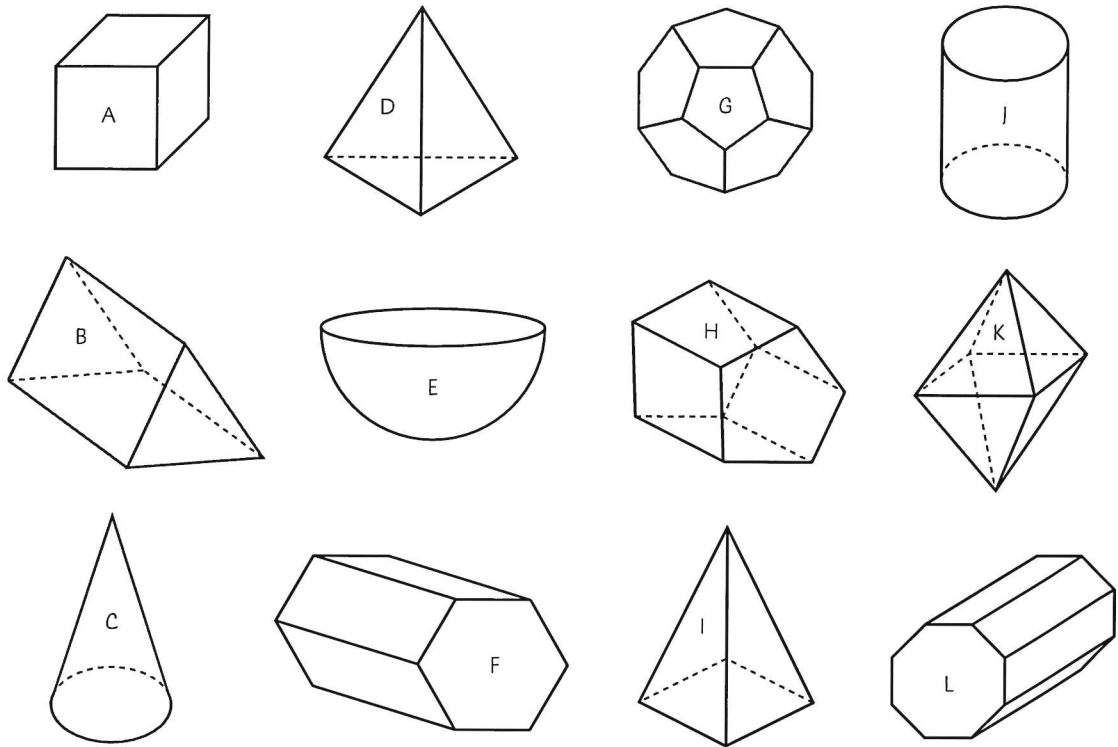
1 Write each of the letters A–L by the name of the correct shape.

. . . . . pentagonal prism

. . . . . cube

. . . . . hemi-sphere

. . . . . octagonal prism

. . . . . octahedron

. . . . . cylinder

. . . . . triangular prism

. . . . . square based pyramid

. . . . . dodecahedron

. . . . . hexagonal prism

. . . . . cone

. . . . . tetrahedron

2 Complete the table for these prisms.

Prism	Faces	Edges	Vertices
triangular			
cuboid			
pentagonal			
hexagonal			
heptagonal			
octagonal			
nonagonal			
decagonal			

Name: . . . .

Homework Sheet 44:   Translations

Translate each shaded shape twice.

1

A (R3 U1)   B (D4 L1)

4

A (D2 L1)   B (U1 L3)

2

A (U2 L3)   B (U3 R2)

5

A (D2 R4)   B (D3 R1)

3

A (D1 R3)   B (U2 L1)

6

A (U3 R2)   B (D1 R4)

Name: ....
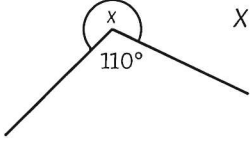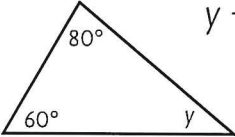
Homework Sheet 45:   Symmetry

Shade in as many squares as necessary to complete the symmetrical patterns.
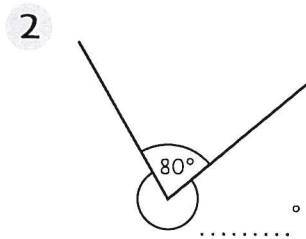
Shade the reflection of each shape in both mirror lines.

1

2

3

4

5

6

7

Name: . . . .
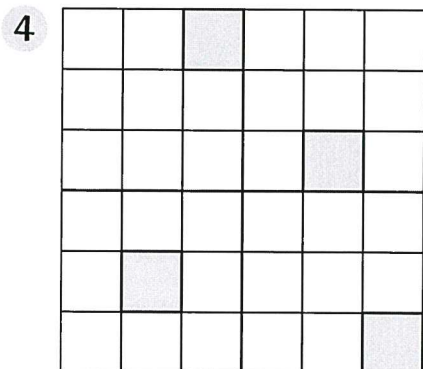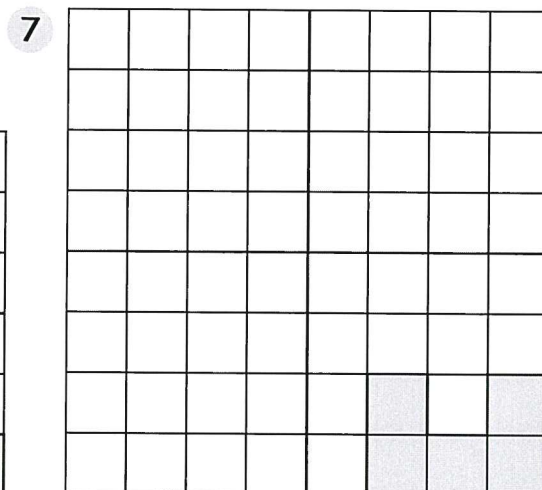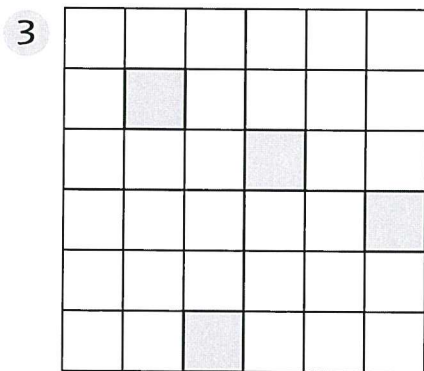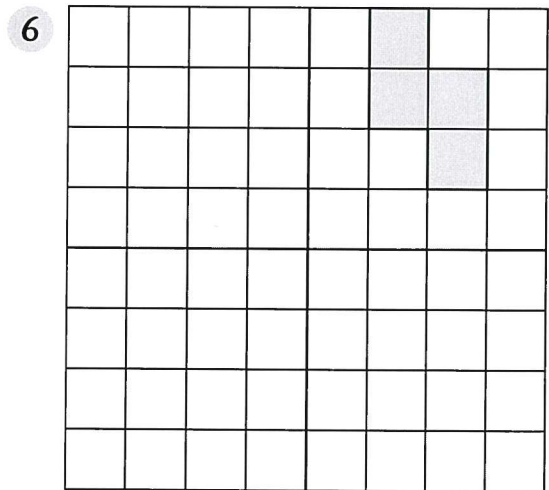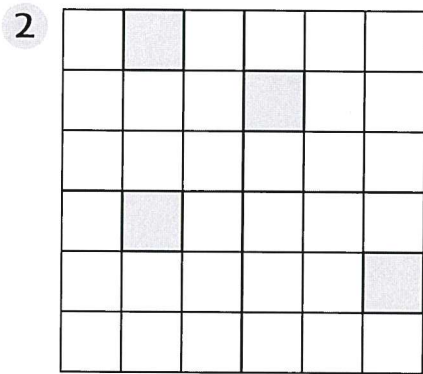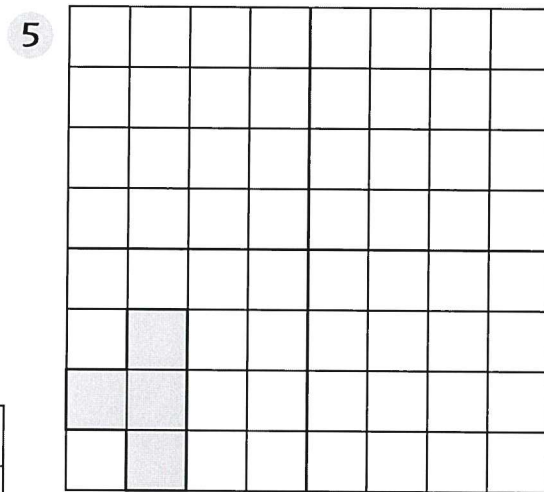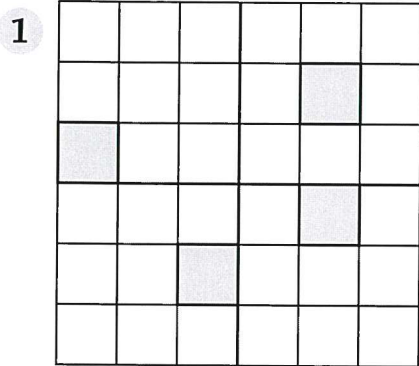
Homework Sheet 46:   Missing Angles

Examples

$x + 110° = 360°$
$x = 250°$

$y + 60° + 80° = 180°$
$y + 140° = 180°$
$y = 40°$

Write the missing angle on the line.

1 200° . . . . °

2 80° . . . . °

3 325° . . . . °

4 165° . . . . °

5 58° . . . . °

6 293° . . . . °

7 . . . . ° 50° 70°

8 . . . . ° 90° 40°

9 80° 50° . . . . °

10 65° 45° . . . . °

11 45° 35° . . . . °

12 55° 75° . . . . °

13 54° . . . . °

14 132° . . . . °

15 247° . . . . °

16 . . . . ° 60° 65°

17 70° 75° . . . . °

18 80° 55° . . . . °
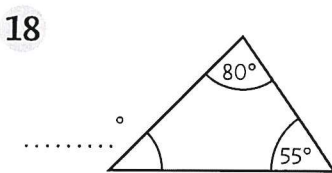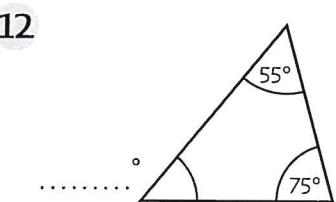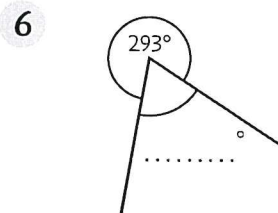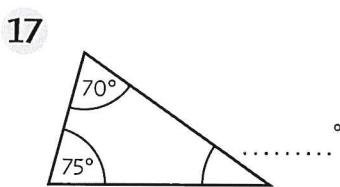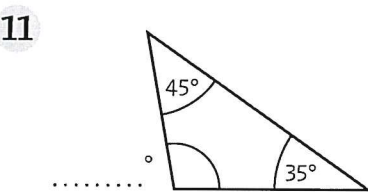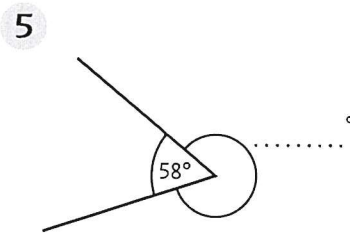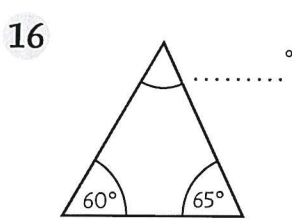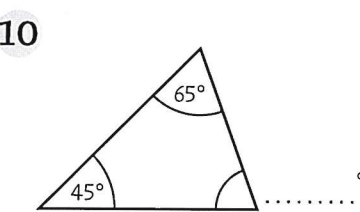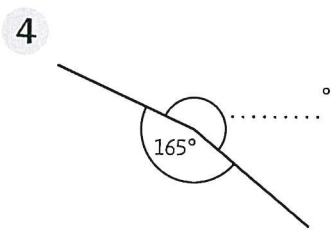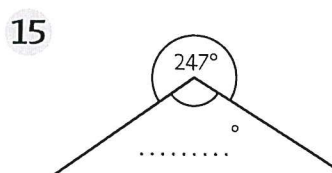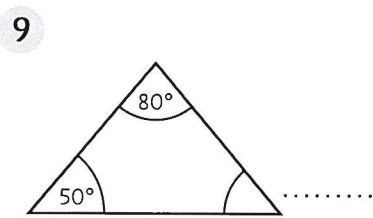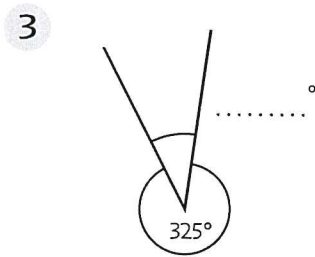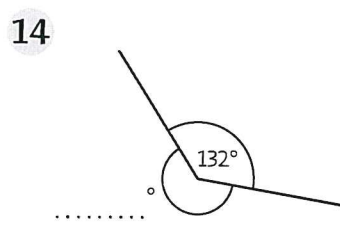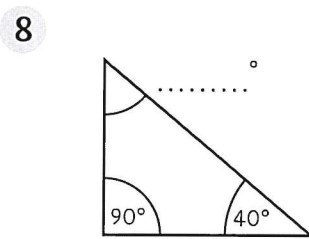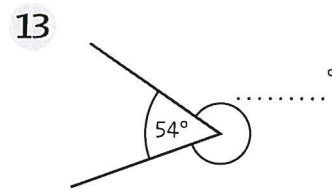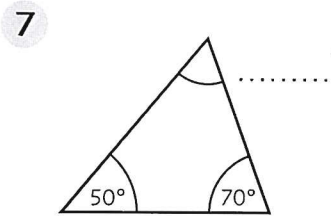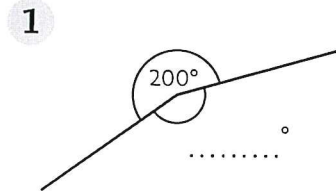
**Name:** . . . .

Homework Sheet 47:   Probability

Work out each probability as a fraction and place on the scale below.

$\frac{1}{2}$

1 Rolling a dice and getting an even number.

2 Rolling a dice and getting a 6.

3 Rolling a dice and getting a number larger than 2.

4 Rolling a dice and getting a multiple of 3.

5 Rolling a dice and getting a 7.

6 Drawing a card from a pack and getting a black card.

7 Drawing a card from a pack and not getting an ace.

8 Drawing a card from a pack and getting a heart.

9 Drawing a card from a pack and not getting a diamond.

10 Spinning a coin and getting a head.

11 Spinning two coins and getting two heads.

12 Spinning two coins and getting a head and a tail.

①

0          $\frac{1}{2}$ 1
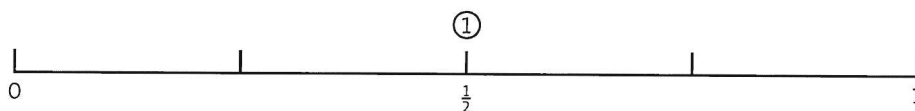
13 a) Firstly, complete the second row of the table below.
    b) Spin a coin 50 times, filling in the third row after every 10 spins.

Number of spins	10	20	30	40	50
Number of heads expected					
Actual number of heads					

Homework Sheet 48:   Interpreting Data

Complete by writing the missing number in each box.

1 The marks achieved by 9 children in a test.

6 7 10 8 5 8 6 5 8

The *range* is the highest mark ☐ − the lowest mark ☐ = ☐.

The *mode* is the most common value, which is ☐.

The *median* is the middle value when the numbers are arranged in size order

— — — — ☐ — — — —

The *mean* is the total marks ☐ ÷ 9 (the number of children) = ☐.

2 The number of goals scored by a school football team in their 13 matches.

3 1 4 0 1 2 8 1 4 7 2 1 5

Range ☐   Mode ☐   Median ☐   Mean ☐

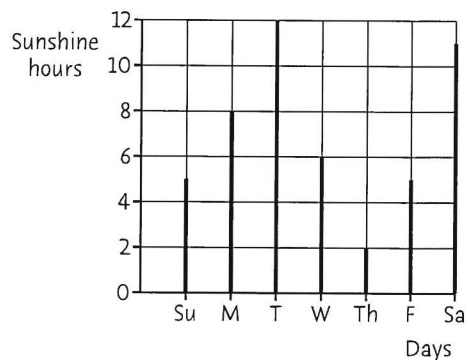**3** The ages of 11 dogs in a park.

3 8 13 4 2 1   Range ☐   Median ☐
8 4 10 5 8   Mode ☐   Mean ☐

4 The daily hours of sunshine recorded in one week in June.

Range ☐   Median ☐
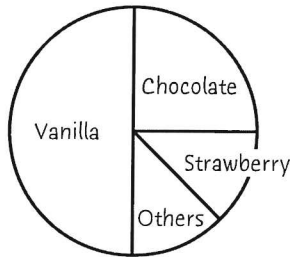
Mode ☐   Mean ☐

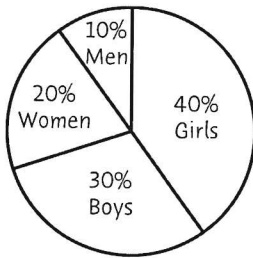# Homework Sheet 49:   Pie Charts

Complete the table using the information displayed in the pie chart.

1 The ice cream flavours chosen by 32 customers of a seaside cafe.
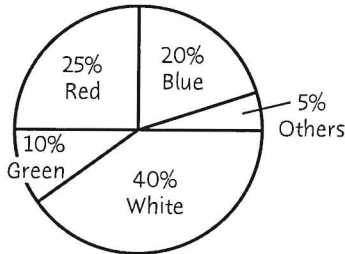

Flavour	Customers
Chocolate	
Strawberry	
Vanilla	
Others	

2

150 people at a swimming pool.

Group	Number
Boys	
Girls	
Men	
Women	

3 The colours of 400 cars in a car park.

Colours	Cars
Blue	
Green	
Red	
White	
Others	

4

The TV channels watched by 120 viewers
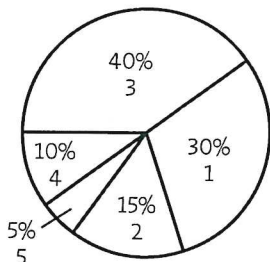
| Channel	Viewers
Channel 1	
Channel 2	
Channel 3	
Channel 4	
Channel 5	

5 In a survey 40 girls and 60 boys were asked how they had spent their leisure time the previous evening. These are the results.
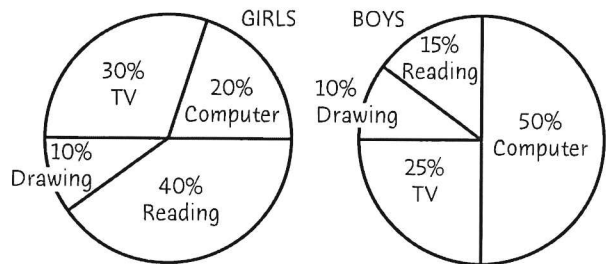
a) How many boys did some drawing? ☐

b) How many girls played on the computer? ☐

c) How many more girls than boys chose to read a book? ☐

d) Did more boys or girls choose to watch TV? ....

Homework Sheet 50: Conversion Graphs

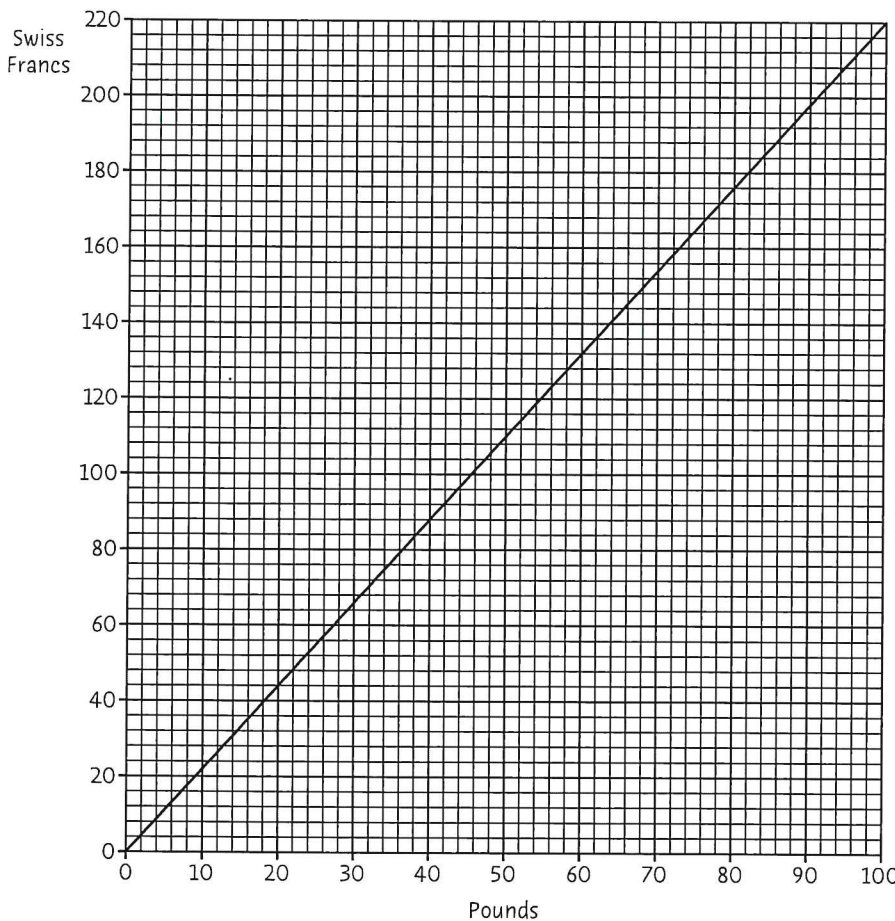This graph converts miles into kilometres.
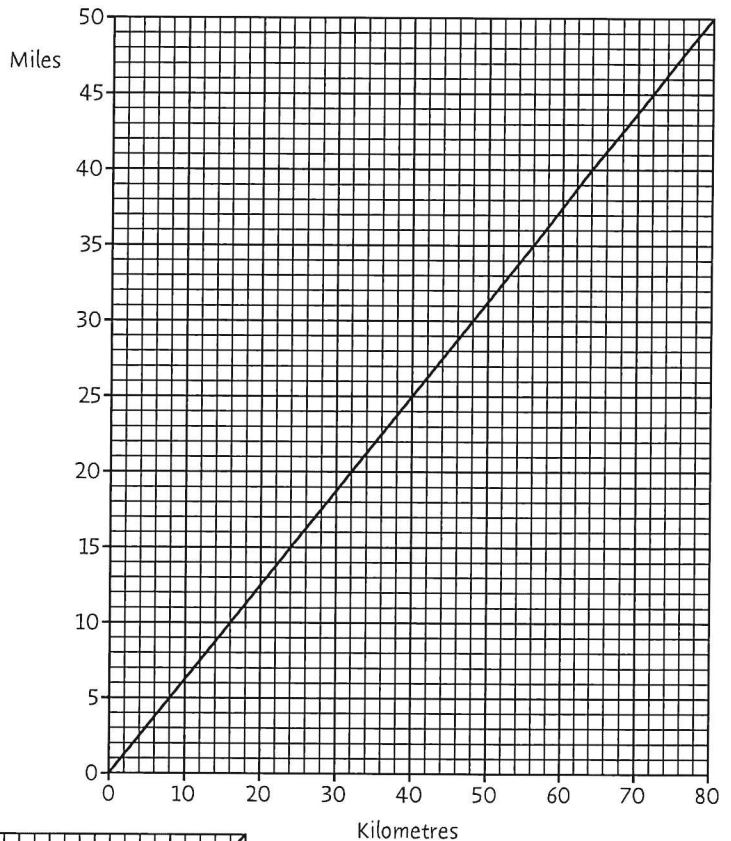
1 Convert into kilometres:

a) 50 miles . . . . km

b) 30 miles . . . . km

c) 20 miles . . . . km

d) 35 miles . . . . km

e) 5 miles . . . . km

2 Convert into miles:

a) 40 km . . . . miles

b) 16 km . . . . miles

d) 64 km . . . . miles

e) 24 km . . . . miles

e) 72 km . . . . miles

This graph converts Swiss francs into pounds.

3 Convert into Swiss francs:

a) £100 . . . . Fr

b) £20 . . . . Fr

c) £90 . . . . Fr

d) £38 . . . . Fr

e) £80 . . . . Fr

4 Convert into pounds:

a) 110 Fr £ . . . .

b) 132 Fr £ . . . .

c) 40 Fr £ . . . .

d) 88 Fr £ . . . .

e) 200 Fr £ . . . .