1 Fill in the results. Colour equal values in the same colour.

18 + 15 =	31 – 10 – 5 = =	25 + 10 – 2 =
28 + 5 =	31 – 11 – 4 =:	25 + 2 + 3 =
31 – 15 =	18 + 10 + 5 = :	31 – 10 – 1 – 4 =
35 – 11 =	18 + 20 – 5 = =	31 – 7 + 8 =
25 – 8 =	31 – 20 + 5 = =	25 + 5 + 3 =

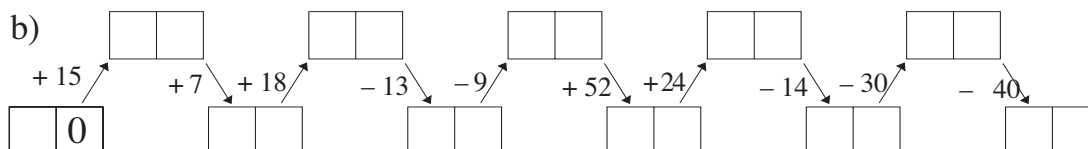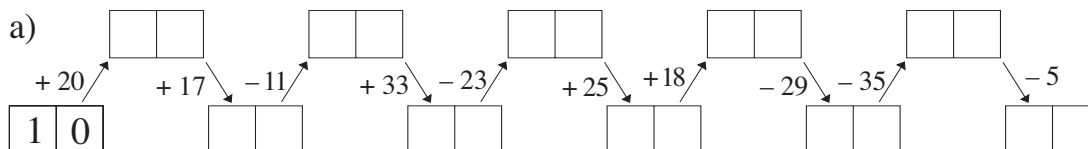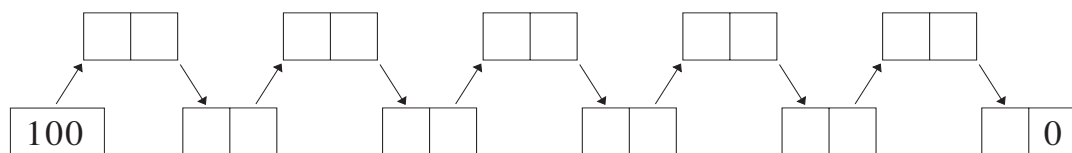**2** Mike has 35 books. He has 18 reference books and the rest are story books.

a)   How many story books does Mike have?   . . . .

b)   Which type of book does Mike have more of? . . . .

How many more does he have?   . . . .

3 Do what the arrows tell you. Fill in the missing numbers.

a)

b)

c)   Make up your own operations to get from 100 to 0.

4 Practise addition and subtraction.

a)   39 + 61 =

b) 45 – 25 =

c)   77 + 7 =

47 + 13 =

63 – 47 =

88 + 8 =

64 + 26 =

36 – 18 =

55 – 15 =

1 Complete the table.

x	0	1	2	3	4	5	6	7	8	9	10	11		
⌒	0	2												
⬠	0													
⬠	0	10												

2 Complete the table. Multiply the numbers in the top row by 4, 7 and 8.

x	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4		4														
7	0															
8			16													

3 Practise multiplication.

a) $4 \times 3 =$ ☐   b) $7 \times 7 =$ ☐   c) $2 \times 8 =$ ☐

$2 \times 7 =$ ☐ $3 \times 9 =$ ☐ $4 \times 0 =$ ☐

$6 \times 8 =$ ☐ $6 \times 4 =$ ☐ $3 \times 1 =$ ☐

$5 \times 6 =$ ☐ $9 \times 9 =$ ☐ $10 \times 1 =$ ☐

$7 \times 4 =$ ☐ $8 \times 5 =$ ☐ $10 \times 10 =$ ☐

4 What is the value of each purse? Write a multiplication below each picture.

a) [purse with 5, 5, 5]

[purse with 50, 50, 50]

b) [purse with 10, 10, 10, 10, 10, 10]

[purse with 100, 100, 100, 100, 100, 100]

c) [purse with 2, 2, 2, 2, 2, 2, 2, 2]

[purse with 20, 20, 20, 20, 20, 20, 20, 20]

5 James had 37 marbles. He won 11 marbles from each of his 3 friends.
How many marbles does James have now?

☐ marbles

1   Pull out the data. Make a plan. Do the calculation and check it.

a)   Each taxi can take 6 people. How many taxis will be needed for 30 people?

Plan:

Calculation: *Check:*

Answer: . . . .

b)   45 sweets are divided equally among 7 children. How many sweets will each child get?

Plan:

Calculation: *Check:*

Answer: . . . .

---

2   Practise division.

a) $50 \div 5 =$ ⬚   b) $16 \div$ ⬚ $= 8$ c) $14 \div 2 =$ ⬚

$70 \div 10 =$ ⬚ $40 \div$ ⬚ $= 4$ $140 \div 2 =$ ⬚

$80 \div 2 =$ ⬚ $40 \div$ ⬚ $= 8$ $140 \div 20 =$ ⬚

$18 \div 2 =$ ⬚ $45 \div$ ⬚ $= 9$ $10 \div 2 =$ ⬚

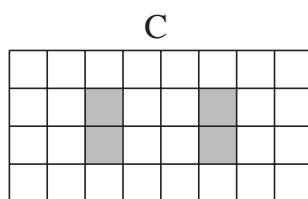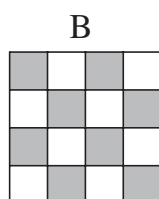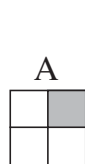$35 \div 5 =$ ⬚ $15 \div$ ⬚ $= 3$ $100 \div 2 =$ ⬚

---

3   Which shape has a half, a quarter, an eighth of it shaded?
Join up the shapes to the matching parts.
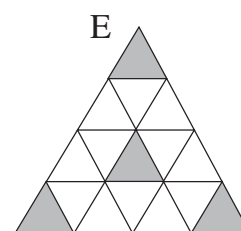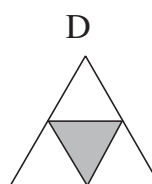
| 1 half | | 1 quarter | | 1 eighth |

4

a)   It takes 3 and a half minutes to boil an egg.
How long will it take to boil 3 eggs?   . . . .

b)   There are 4 sisters in a family. Each of them has one brother.
How many children are in this family?

. . . .

1

Practise division. What is the remainder? Check it with a multiplication.

a) $13 \div 4 \;=\;$ ☐

remainder ☐

Check

☐

   $12 \div 9 \;=\;$ ☐

remainder ☐

Check

☐

   $16 \div 7 \;=\;$ ☐

remainder ☐

Check

☐

b) $29 \div 8 \;=\;$ ☐

remainder ☐

Check

☐

   $35 \div 3 \;=\;$ ☐

remainder ☐

Check

☐

   $26 \div 4 \;=\;$ ☐

remainder ☐

Check

☐

c) $45 \div 7 \;=\;$ ☐

remainder ☐

Check

☐

   $56 \div 4 \;=\;$ ☐

remainder ☐

Check

☐

   $39 \div 8 \;=\;$ ☐

remainder ☐

Check

☐

2

Which number does each letter represent? Fill in the missing numbers.

$5 \times a = 25$ $7 \times b = 42$ $c \times 4 = 36$ $d \times 6 = 54$ $16 \div e = 4$

$a =$ ☐ $b =$ ☐ $c =$ ☐ $d =$ ☐ $e =$ ☐

$f \div 7 = 9$ $g \div 7 = 8$ $45 \div h = 9$ $53 \div i \;=\; 10, \text{remainder } 3$

$f =$ ☐ $g =$ ☐ $h =$ ☐ $i =$ ☐

$40 \div j = 6, \text{remainder } 4$ $k \div 10 \;=\; 9, \text{remainder } 1$ $l \div 3 \;=\; 7, \text{remainder } 1$

$j =$ ☐ $k =$ ☐ $l =$ ☐

3

List the whole numbers which make the inequalities true.

a) $5 \times 6 <$ ▢ $< 9 \times 4$ ▢ : . . . .

b) $35 \div 5 \;\leq\;$ ▨ $\leq 81 \div 9$ ▨ : . . . .

c) $6 \times 6 - 4 \times 7 >$ ◠   ◠ : . . . .

d) $15 \times 5 <$ ⬠ $\leq 10 \times 8$ ⬠ : . . . .

4

I thought of a number. I divided it by 7 and the result was 8, remainder 6. What is the number I was thinking of?
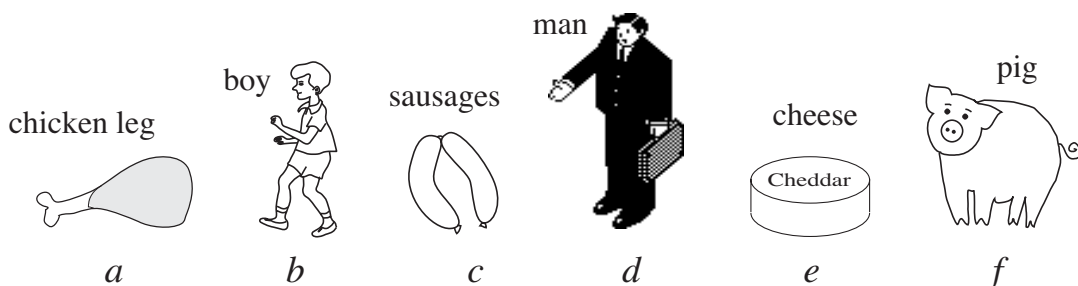
Calculation: . . . .

Check: . . . .   *Answer:*

1 Fill in the missing numbers and units.

a) 2 litres = 200 ☐   d) 3 litres 50 cl = 350 ☐

b) 5 litres = ☐ cl   e) 2 and a half litres = ☐ cl

c) 9 litres = ☐ cl   f) 40 cl = ☐ ml

2 What do you think they would weigh in real life? Write the letters in the circles.

man

boy   sausages   pig

chicken leg   cheese

a   *b*   *c*   *d*   *e*   *f*

100 kg < ◯ < 200 kg   30 kg < ◯ < 40 kg   60 kg < ◯ < 90 kg

500 g < ◯ < 800 g   1000 g < ◯ < 2000 g   100 g < ◯ < 200 g

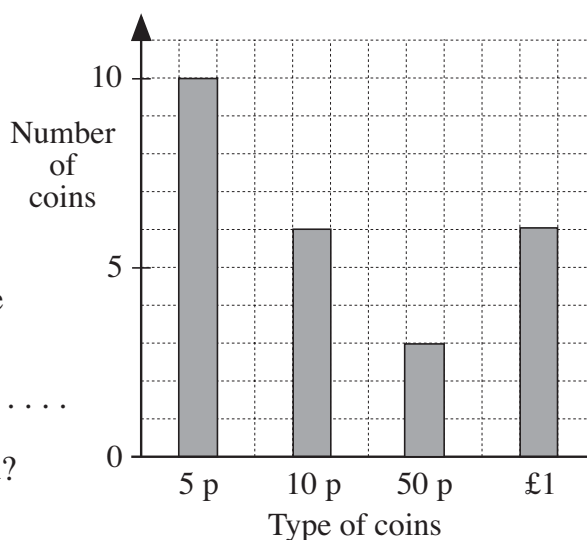**3** Change the measures of time. Fill in the missing numbers.

a) 73 days   = ☐ weeks ☐ days

b) 68 minutes   = ☐ hours ☐ minutes

c) 135 minutes = ☐ hours ☐ minutes

d) 15 months   = ☐ years ☐ months

4 Rachel emptied her piggy bank and counted the coins she had saved.

The graph shows the number of each type of coin in Rachel's piggy bank.

a) How many coins did Rachel have in her piggy bank altogether?

. . . .

b) How much money had she saved?

. . . .

Number of coins

10

5

0

5 p   10 p   50 p   £1

Type of coins

1 Collect data on birthdays for all the pupils in your class.

a) Keep a tally of the number of birthdays on each **day**
    (1st to 31st) of the month in this table.

Birthdays on each day of the month

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

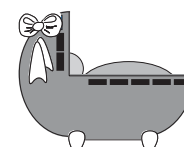| 16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

b) Keep a tally of the number of birthdays in each **month**
    (January to December) in this table.

Birthdays in each month

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

c) Keep a tally of the number of pupils in your class who
    were born in each **year**.

Year of birth

....	....	....	....	....	....

d) Which is the **most** common:

   i) day . . . .   ii) month . . . .   iii) year? . . . .

e) Which is the **least** common:

   i) day . . . .   ii) month . . . .   iii) year? . . . .

f) Will this result be the same for **all** classes in your school?   . . . .

   Why? . . . .

1 Sue spent some money on sweets. How much did she have left?
Complete the table.

Had (p)	100	200	90	190	150	180	150	150
Spent (p)	50	50	60	160	140		110	
Had left (p)						70		10

2 Use only the digits 0, 1, 2, 3, 4 or 5. Which of these digits can be put in the units, tens or hundreds boxes so that the numbers are

a) **exactly** divisible by 5   2 5 ☐   2 ☐ 0   ☐ 30   2 0 ☐

b) **exactly** divisible by 10?   2 5 ☐   1 ☐ 0   ☐ 30   2 0 ☐

3 Fill in the missing numbers.

a)   4 + 7 = ☐   40 + 70 = ☐   1 + 8 = ☐   10 + 80 = ☐

b)   5 + 8 = ☐   50 + 80 = ☐   6 + 9 = ☐   60 + 90 = ☐

c) 20 − 5 = ☐   200 − 50 = ☐   13 − 4 = ☐   130 − 40 = ☐

d) 30 − 6 = ☐   300 − 60 = ☐   15 − 8 = ☐   150 − 80 = ☐

e) 75 − 9 = ☐   750 − 90 = ☐   23 − 7 = ☐   230 − 70 = ☐

4 a)   What will the milometer show when we have gone another 10 miles?

| 0 | 2 | 5 | 8 | | 0 | 2 | 8 | 9 | | 0 | 3 | 0 | 9 | | 0 | 4 | 4 | 4 |

↓   ↓   ↓   ↓

☐☐☐☐   ☐☐☐☐   ☐☐☐☐   ☐☐☐☐

b)   What did the milometer show 10 miles ago?

| 0 | 3 | 6 | 8 | | 0 | 1 | 2 | 1 | | 0 | 2 | 1 | 4 | | 0 | 5 | 6 | 5 |

↑   ↑   ↑   ↑

☐☐☐☐   ☐☐☐☐   ☐☐☐☐   ☐☐☐☐

5 Which different 1-digit numbers could a, b and c be if $a + b + c = 14$ and $a \times b \times c = 84$?
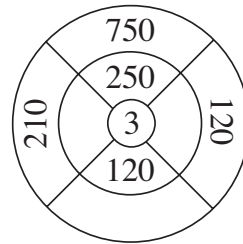
$a = $ ☐ $b = $ ☐

$c = $ ☐

1 Write these numbers in the correct boxes.

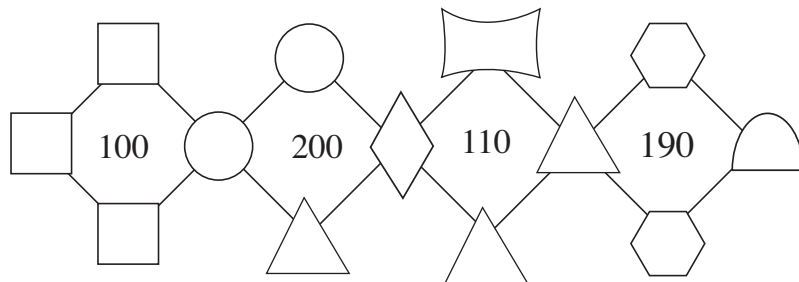0, 3, 6, 7, 9, 13, 22, 34, 67, 88, 102, 112, 123, 156, 187

Even	Odd

2 Write the rule and fill in the missing numbers.

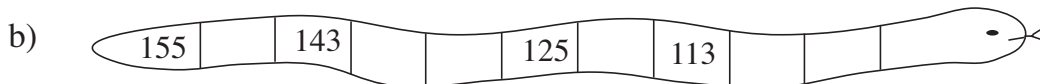*Rule*: . . . .

3 The same shape means the same number. The number in the middle is the **sum** of the 4 numbers around it. Fill in the missing numbers. Choose from:
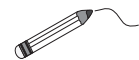
10, 20, 30, 40, 50, 60 or 70.

4 Fill in the numbers missing from the snakes. Write the rules in their heads.

a)

109 117 125 141

b)

155 143 125 113

5 Join up the equal amounts.

| 36 ÷ 6 + 100 |
| 3 quarters of 40 |
| 2 thirds of 18, minus 2 |
| 1 half of 50 |

| 4 × 15 ÷ 6 |
| 1 fifth of 125 |
| 57 + 7 × 7 |
| (72 + 18) ÷ 3 |

1 List the numbers which make the inequality true.

a) $70 \div 5 >$ ☐ $> 200 \div 10$ ☐ : . . . .

b) $8 \times 4 + 14 <$ ☆ $\leq 11 \times 5 - 5$ ☆ : . . . .

c) $81 \div 9 \times 3 \geq$ △ $> 100 \div 5$ △ : . . . .

2 A 1st class stamp costs 27 p and a 2nd class stamp costs 21 p.

a) Complete the table.   Number of:

21 p stamps	1	1	2	2	2
27 p stamps	1	2	0	1	2
Total cost (p)					

b) I paid exactly £1 65 p for stamps. How many 1st class and how many 2nd class stamps did I buy?

Answer: . . . .

3 How many different results can you find? Use $+, -,$ or $\times$ signs.

70 ☐ 10 ☐ 3 = ☐   70 ☐ 10 ☐ 3 = ☐

70 ☐ 10 ☐ 3 = ☐   70 ☐ 10 ☐ 3 = ☐

70 ☐ 10 ☐ 3 = ☐   70 ☐ 10 ☐ 3 = ☐

70 ☐ 10 ☐ 3 = ☐   70 ☐ 10 ☐ 3 = ☐

70 ☐ 10 ☐ 3 = ☐   70 ☐ 10 ☐ 3 = ☐

4 Fill in the missing numbers and complete the drawings.

H T U	H T U	H T U	H T U	H T U	H T U
1 3 8			2 5 0	4 0 7	1 3 5
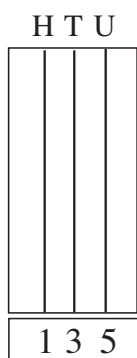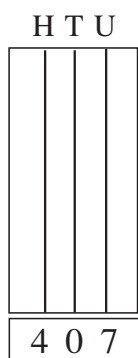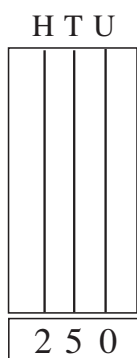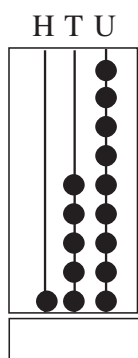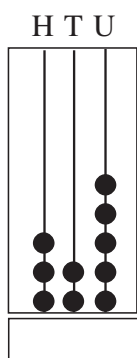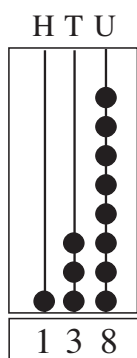
1 Fill in the missing numbers and signs.

$\boxed{163} \xrightarrow{+27} \boxed{} \xrightarrow{} \boxed{164} \xrightarrow{+29} \boxed{} \xrightarrow{} \boxed{181} \xrightarrow{-13} \boxed{}$
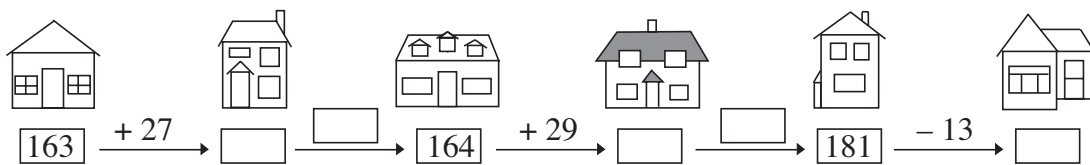
2 List the numbers which make the statement true.

$170 < \boxed{?} + 40 < 190 - 15$ $\boxed{}$: . . . .

3 Write the answers as Roman numerals.

a) CXIII – XI =   b) LXXXI + IX =   c) CCX + L =

d) XL × II =   e) XLII ÷ VII =   f) LX + XL =
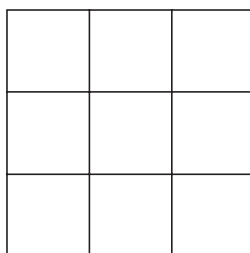
4 Using each of the numbers 1 to 9 once only, make an **anti-magic square**.

The sums of the numbers along each row, column and diagonal must all be different.

5 Write the calculation **without** brackets so that the result is the same.

a) $147 - (50 - 6)$ = $\boxed{}$ . . . .

b) $200 + (66 - 9)$ = $\boxed{}$ . . . .

c) $135 - (40 - 12)$ = $\boxed{}$ . . . .

d) $(20 - 3) \times 7$ = $\boxed{}$ . . . .

e) $(120 + 50) \div 10$ = $\boxed{}$ . . . .

6 Draw over the parts of the number line which can be **rounded** to the same whole ten as the number marked. Label the highest and lowest possible whole numbers.

a)

80   90   100

b)

100   110   200

c)

220   230   240

d)

350   360   370
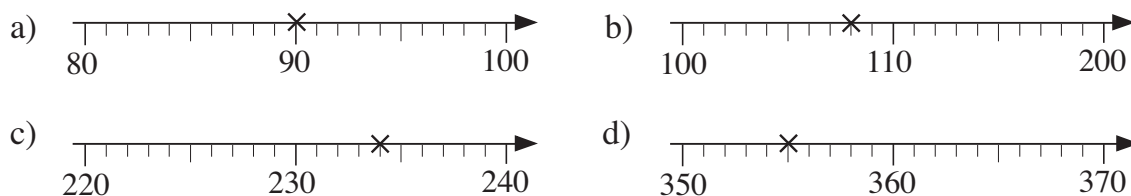
1 Fill in the missing numbers. Write down the rule.
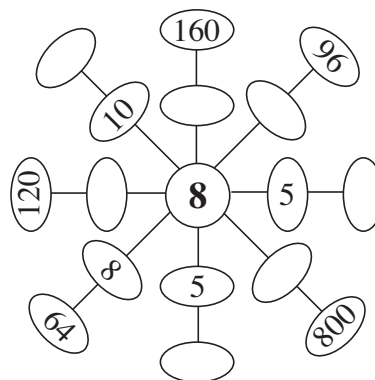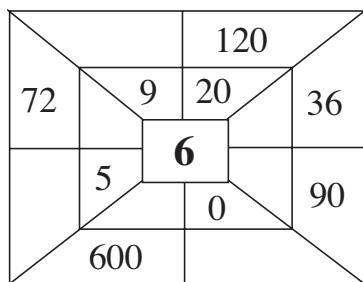
Rule: . . . .

2 Round these numbers to the next nearest whole ten.

a) 33 ≈ ☐ 57 ≈ ☐ 96 ≈ ☐

b) 108 ≈ ☐ 203 ≈ ☐ 399 ≈ ☐

c) 556 ≈ ☐ 411 ≈ ☐ 666 ≈ ☐

3 Write the Roman numerals below these numbers.

a) 152 b) 74 c) 300 d) 99 e) 108

4 Practise calculation.

a) 10 × ☐ = 300 b) ☐ × 17 = 0 c) ☐ × 4 = 60

9 × ☐ = 270 150 ÷ ☐ = 15 167 ÷ ☐ = 167

☐ × 5 = 500 90 ÷ ☐ = 45 ☐ ÷ 2 = 50

☐ × 8 = 240 ☐ ÷ 5 = 200 ☐ ÷ 19 = 0

☐ × 11 = 110 ☐ ÷ 6 = 110 ☐ ÷ 50 = 5

5 a) How many hours and minutes have passed in an evening from:
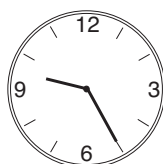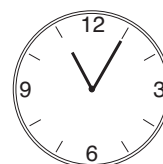
  to   ☐ hours ☐ minutes

b) How many more minutes will it then be until midnight? ☐ minutes

1 Complete the open sentences so that they are correct.

a) 1 fifth of an hour + [   ] hour = 1 hour.

b) 40 minutes + [   ] hour = 1 hour.

c) 10 minutes + half an hour + [   ] minutes = 1 hour.

d) 3 quarters of an hour + 1 sixth of an hour + [   ] minutes = 1 hour.

e) 2 thirds of an hour + [   ] minutes = 1 hour.

f) [   ] minutes + 3 quarters of an hour = 1 hour.
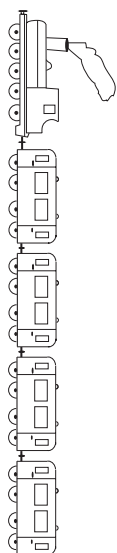
g) 2 thirds of an hour + [   ] hour = 1 hour.

2 A train runs at different times of the day between 2 stations. Complete the table.

Departs from Station A at:	Arrives at Station B at:	Journey time:
6:53	11:30	h min
10:25	13:10	h min
17:05	20:56	
21:30	00:45	
00:36	04:35	
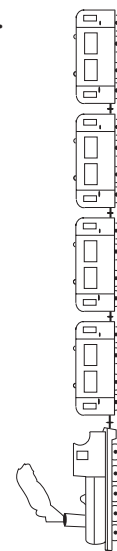
3 Practise division. Check with multiplication.

a) 31 ÷ 5 = [   ]
   remainder [   ]
   Check
   [   ]

b) 87 ÷ 9 = [   ]
   remainder [   ]
   Check
   [   ]

c) 48 ÷ 7 = [   ]
   remainder [   ]
   Check
   [   ]

d) 106 ÷ 10 = [   ]
   remainder [   ]
   Check
   [   ]

e) 98 ÷ 3 = [   ]
   remainder [   ]
   Check
   [   ]

f) 85 ÷ 60 = [   ]
   remainder [   ]
   Check
   [   ]
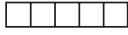
1 I planted roses in 80 square metres of my garden. This area is 1 fifth of my whole garden. How big is my garden?

Answer: . . . .

2 Complete the table.

Unit	□	⊞	⊡	⊞	⬚⬚⬚⬚	⊞
Shape	⊞	□	⊞	⊡	⊡	⊡
Value of shape	3					

3 Colour these shapes in the grid so that the **sum** of each shape is 500.

100	100	200	100	400	200	200	450
100	150	150	200	50	50	150	200
100	50	100	350	350	300	200	100
100	400	250	250	400	50	150	250
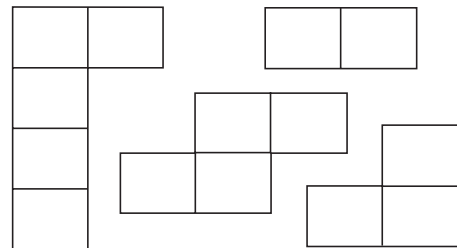
4 What is:

a)   49 less than 123 ☐

b)   250 more than 125 ☐

c)   3 times more than 33 ☐

d)   1 fifth of 110 ☐

e)   the difference between 97 and 48 ☐

f)   1 ninth of 81 ☐

g)   the product of 18 and 4 ☐

h)   the sum of 176 and 54? ☐

5 Join up the equal amounts.

900 – 179

267 + 233

678 – 253

77 + 48 + 81

425

50

111

206

873

721

500

619

1000 – 127

999 ÷ 9

700 – 9 × 9

1 quarter of 200
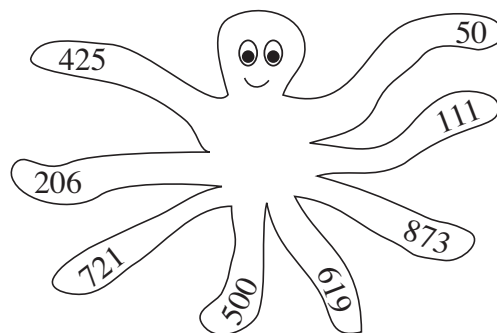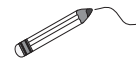
1   Write the numbers as digits.

a)   Th   H   T   U   b)   Th   H   T   U   c)   Th   H   T   U   d)   Th   H   T   U

2   Write these numbers as digits. Which is more? Write in the correct sign. (<, =, >)

a)   6 hundred and 5   = [   ] ◯ [   ] = 6 hundred and 50

b)   9 hundreds + 2 tens   = [   ] ◯ [   ] = 9 hundreds + 1 ten + 9 units

c)   2 hundreds + 1 ten + 7 = [   ] ◯ [   ] = 2 hundreds + 0 tens + 9 units

d)   7 hundred and 13   = [   ] ◯ [   ] = 7 hundreds + 2 tens

Colour *yellow* the boxes which contain even numbers.

3   a)   Complete the table.

			Th	H	T	U
i)	320	$3 \times 100 + 2 \times 10 + 0 \times 1$				
ii)	951					
iii)	888					
iv)	603					
v)	1071					
vi)	3540					

b)   Write the numbers in the table in words.

i)   . . . .

ii)   . . . .

iii)   . . . .

iv)   . . . .

v)   . . . .

vi)   . . . .

 1 Study the numbers in set **B**. Complete the sentences so that they are correct.

$$\mathbf{B} \;=\; \{\; 144,\; 273,\; 50,\; 18,\; 705,\; 1001,\; 850\; \}$$

a)   All these numbers . . . .

b)   Not all these numbers . . . .

c)   None of these numbers   . . . .

d)   There is at least one number which . . . .

e)   There are no numbers which . . . .

f)   There is at least one number which is not . . . .

 2 Fill in the missing numbers.

$$500 \;\xrightarrow{\;-\,46\;}\; \boxed{} \;\xrightarrow{\;-\,28\;}\; \boxed{} \;\xrightarrow{\;\div\,2\;}\; \boxed{} \;\xrightarrow{\;\times\,3\;}\; \boxed{} \;\xrightarrow{\;+\,361\;}\; \boxed{}$$
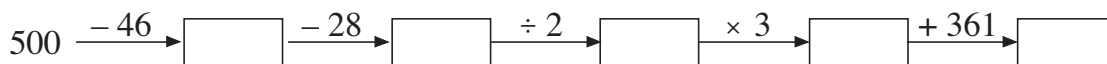
Write the operations in reverse order.

$$500 \;\longleftarrow\; \boxed{} \;\longleftarrow\; \boxed{} \;\longleftarrow\; \boxed{} \;\longleftarrow\; \boxed{} \;\longleftarrow\; \boxed{}$$

 3 Complete the table. Write the rule in different ways.

☆	475	625		217	37	475		111	456	
☀	360		1002	555	926		382	765		
☽	835	960	1012			1000	500		850	

☽ =   ☆ =   ☀ =

 4 Write these numbers as Roman numerals.

a)   653   b)   402   c)   317   d)   528   e)   1010

. . . .

 5 A glass full of milk weighs 370 g. When the glass is half full of milk it weighs 290 g. What does the empty glass weigh?

Answer: . . . .

1 Round the lengths given in millimetres to the nearest centimetre. Follow this pattern:

> 658 mm ≈ 660 mm, 660 mm = 66 cm
>
> 658 mm ≈ 66 cm

a) 324 mm ≈ ☐ cm . . . .

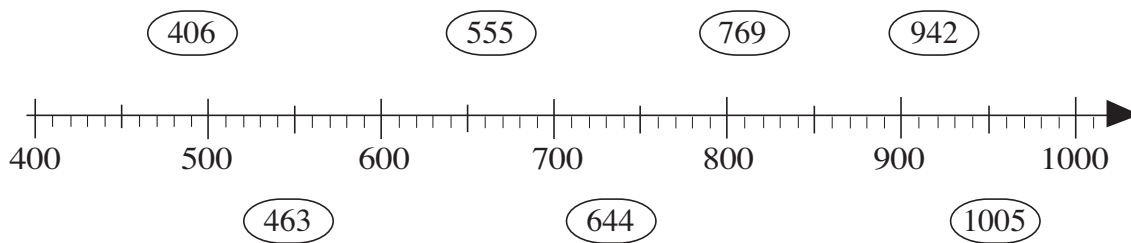. . . . .

b) 530 mm ≈ ☐ cm . . . .

. . . .

c) 799 mm ≈ ☐ cm . . . .

. . . .

d) 2002 mm ≈ ☐ cm . . . .

. . . .

2 Join up these numbers to the **approximate** place on the number line.

406   555   769   942

463   644   1005

3 a) Complete the table.

Number	Rounded to nearest 10	Rounded to nearest 100
943		
304		
184		
765		
125		
550		
247		
805		

b) List all the 3 digit whole numbers which have:

- 5 as the tens digit when rounded to the nearest ten,

and also

- 5 as the hundreds digit when rounded to the nearest hundred.

1 Round the amounts in millilitres to the nearest centilitre.

a) 293 ml ≈ [   ] cl   b) 994 ml ≈ [   ] cl

295 ml ≈ [   ] cl   995 ml ≈ [   ] cl

298 ml ≈ [   ] cl   999 ml ≈ [   ] cl

c) 1004 ml ≈ [   ] cl   d) 1593 ml ≈ [   ] cl

1005 ml ≈ [   ] cl   1595 ml ≈ [   ] cl

1006 ml ≈ [   ] cl   1597 ml ≈ [   ] cl

2 Colin and Diane have saved £900 altogether. How much money could they each have saved? Complete the table and write the rule.

C	£100		£500		£700		£10			
D		£200		£0		£40		£500	£10	£1

Rule: C =   D =   £900 =

3 Write the calculations and underline the answer.

a) Irene has £700 and Joanne has £500. Who has more? How much more?

. . . .

b) Dan and Bob have £700 altogether. Dan has £500 more than Bob.

How much money does Bob have?

. . . .

4 Which is more? Fill in the missing signs. Write the greater value in the table.

a) 12 ℓ 25 cl ◯ 12.5 ℓ

b) £150 24 p ◯ £15.24

c) 6 m.59 cm ◯ 655 cm

d) 220 cl ◯ 2 ℓ 86 cl

e) 4 m 65 cm ◯ 4.6 m

	H	T	U	t	h
a)					
b)					
c)					
d)					
e)					

1 David has £233 and James has £426. How much do they have altogether?
Complete the tables.

Hundreds	Tens	Units
D	100 100	10 10 / 10	① ① ①
J	100 100 / 100 100	10 10	① ① ① / ① ① ①

	H	T	U
£	2	3	3
£			
£			

```
      2 3 3
  +
  ─────────
```

2 Estimate, then calculate the sum. Show your estimate in detail.

b)   514 + 256

   E: _____   *C:*

c)   614 + 257

   E: _____   *C:*

d)   614 + 258

   E: _____   *C:*

3 Find the data and write a plan. Estimate, calculate and check the result.
Write the answer as a sentence.

a)   Susan bought 2 rolls of remnant material to make curtains.
In one roll there was 6 m 5 cm and in the other there was 3 m 62 cm.

How many cm of material did Susan buy altogether?

Data: _____

Plan: _____ *E:* _____ *C:*

Answer: _____

b)   Last month, Mum earned £1247 and Dad earned £551 more.

How much did they earn altogether last month?

Data: _____

Plan: _____ *E:* _____ *C:*

Answer: _____

1 *Freddy Fox* was going home. He ran for 579 m, then had a rest. Then he ran for another 356 m and reached his house. How far away had he been from home?

Data: _____ *E:* _____

Th	H	T	U

Calculation:

Answer:
_____
_____

2 24 cm 6 mm was cut from a roll of tape. If 254 mm was left, how long was the original roll of tape?

Data: _____

Plan: _____ *E:* _____ *C:*

Answer: _____

3 Practise addition. Check by adding up ↑, then down ↓.

a)
```
    5 0 3
  1 2 4 3
+     4 3
```

b)
```
    4 1 1
    3 7 8
+ 1 1 0 0
```

c)
```
      9 6
    5 0 3
+   2 0 3
```

d)
```
    4 4 0
+ 1 0 1 5
  1 5 1 5
```

e)
```
    3 0 7
    8 0 1
+   2 0 4
```

f)
```
    5 9 0
      2 7
+   4 4 2
```

g)
```
      2 5
    5 4 6
+ 1 3 0 0
```

h)
```
    7 3 4
    3 0 0
+   5 0 7
```

i)
```
    2 6 6
  1 1 1 0
+   5 4 5
```

j)
```
    9 3 3
    9 5 5
+       5
```

4 Draw amounts to correspond to the numbers shown on the number lines.

Choose from | 1000 | | 500 | | 200 | | 100 | | 50 |
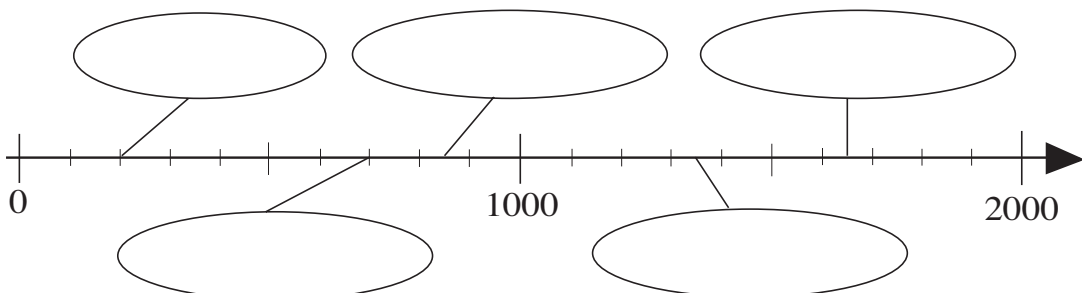
1 Estimate the difference by rounding the numbers to the nearest 10:

a) $951 - 549 \approx$ ⬚ $-$ ⬚ $=$ ⬚

b) $1364 - 652 \approx$ ⬚ $-$ ⬚ $=$ ⬚

c) $1374 - 648 \approx$ ⬚ $-$ ⬚ $=$ ⬚

d) $1324 - 657 \approx$ ⬚ $-$ ⬚ $=$ ⬚

e) $1763 - 450 \approx$ ⬚ $-$ ⬚ $=$ ⬚

2 *A* and *B* are two numbers.

   H is an estimate of their difference by rounding them to the nearest 100.

   T is an estimate of their difference by rounding them to the nearest 10.

Complete the table.

A	723	971	314	636	809	527	715
B	274	508	151	463	347	463	315
H	400						
T	450						

3 Estimate the difference by rounding to the nearest 10, then do the calculation.

a) $854 - 403$ *E*: . . . . $-$

b) $785 - 64$ *E*: . . . . $-$

4 Solve each problem in your exercise book. Check your result. Write the answer.

a) Sarah cut 2 m 17 cm from a 3 m 24 cm piece of lace to trim a cushion. How much lace did she have left?

   Answer: . . . .

b) Jim bought 5 litres of plant food. He used 2 litres 78 cl on his vegetables and 1 litre 25 cl on the other plants in his garden. How much plant food did he have left?

   Answer: . . . .

1 The same letter stands for the same digit within each part. What is the value of each letter? Try it out in your exercise books first.

a)
```
    A A
    B B
+   C C
-------
  A B C
```

b)
```
    A B
+   A B
-------
  B C D
```

c)
```
  A A A B
- A A A
-------
    C C C
```

A = __ B = __ C = __   A = __ B = __ C = __   A = __ B = __ C = __

2 Join up the numbers to their approximate positions on the number line.

(490)   (950)   (1025)   (1200)   (1550)

0 ————————————————————— 1000 ————————————————————— 2000

(5)   (675)   (1100)   (1999)

3 Practise addition. Check by adding up ↑, then down ↓.

a)
```
  1 6 0 1
      5 6
+   3 3 0
```

b)
```
    2 2 2
  1 1 1 1
+   9 9 9
```

c)
```
      8 7
    2 3 0
+   5 0 2
```

d)
```
    3 0 3
    4 5 1
+ 1 5 1 6
```

e)
```
    1 9 4
    6 0 0
+   2 0 6
```

f)
```
  1 3 9 0
        7
+   5 8 2
```

g)
```
      4 2
    8 3 9
+ 1 8 0 1
```

h)
```
    1 6 3
      7 0
+   9 0 7
```

i)
```
    7 3 2
    1 2 4
+   7 4 7
```

j)
```
    9 8 7
    6 5 4
+   1 2 3
```

4 Join up the equal values.

589 – 194

367 + 183

862 – 217

265 + 69 + 171

505   500   150   550   395   645   110   889
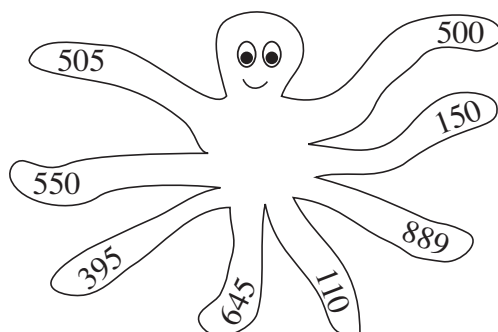
2000 – 1111

550 ÷ 5

1500 – 10 × 100

1 tenth of 1500

Page 21

1 Continue the sequences for 4 terms in each direction. Write the rules.

a) . . ., . . ., . . ., . . ., 440, 465, 490, . . ., . . ., . . ., . . ., *Rule*: . . . . . .

b) . . ., . . ., . . ., . . ., 525, 595, 665, . . ., . . ., . . ., . . ., *Rule*: . . . . . .

c) . . ., . . ., . . ., . . ., 1023, 963, 903, . . ., . . ., . . ., . . ., *Rule*: . . . . . .

d) . . ., . . ., . . ., . . ., 1000, 965, 930, . . ., . . ., . . ., . . ., *Rule*: . . . . . .

2 Draw the shapes described on a squared grid sheet (or in your exercise books).

a) A plane shape which has area 8 square units and perimeter 12 units.

b) A plane shape which has area 8 square units and perimeter 18 units.

c) A square which has perimeter 12 units.

3 Practise calculation.

a) $197 + 100 \div 10 = \boxed{}$ b) $874 - 50 \times 5 = \boxed{}$

c) $60 \times 6 + 512 = \boxed{}$ d) $270 \div 9 + 888 = \boxed{}$

e) $(614 + 85) \div 3 = \boxed{}$ f) $320 \div (1000 - 968) = \boxed{}$

g) $150 \times 2 + 720 = \boxed{}$ h) $(390 - 70) \div 4 = \boxed{}$

4 Which positive, whole numbers can be written instead of the letters?

i) $690 + \boxed{a} = 943$ ii) $865 - \boxed{d} = 553$ iii) $\boxed{g} - 597 = 634$

$a = $ ....

$d = $ ....

$g = $ ....

$300 + \boxed{b} < 412 - 99$

$865 - \boxed{e} \geq 442$

$\boxed{h} - 486 < 523$

b : ....

e : ....

h : ....

$456 + \boxed{c} = 832$

$865 - \boxed{f} < 442$

$\boxed{i} - 486 > 523$

$c = $ ....

f : ....

i : ....

5 Draw a picture on this grid using only straight lines.

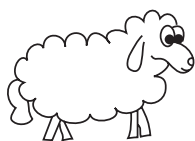Draw a dot at the starting point.
Write instructions on how to draw it.
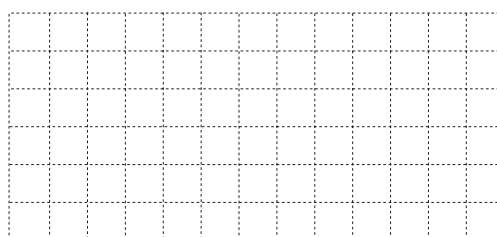
1 Practise calculation.

a) $60 + 120 \div 6 =$ [ ]

b) $689 - 50 \times 3 =$ [ ]

c) $100 \times 7 + 3 =$ [ ]

d) $250 \div 5 + 20 =$ [ ]

e) $(379 + 221) \div 3 =$ [ ]

f) $320 \div 8 - 4 =$ [ ]

g) $250 \times 4 - 160 \div 8 =$ [ ]

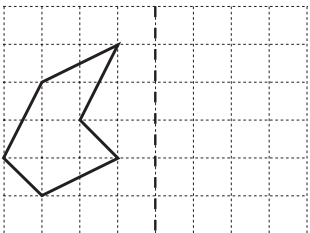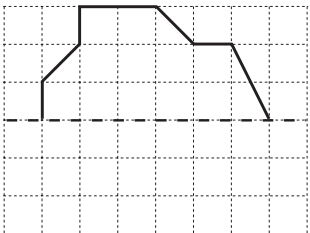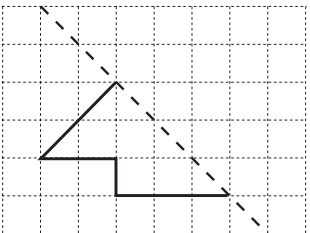h) $1450 - 70 \div 10 =$ [ ]

2 *Larry Lamb* has done his homework. He had to write 4 numbers in different ways. Mark his work and correct any mistakes.

Help him to finish the last number.

a) $4H + 5T + 3U$, $400 + 50 + 3$, $4 \times 100 + 5 \times 100 + 3 \times 1$

b) $1T + 8H + 7U$, $187U$, MDCCCVII, $1 \times 1000 + 8 \times 100 + 7 \times 1$

c) $9H + 2T$, $92T$, CMII, $9 \times 100 + 2 \times 10 + 0 \times 1$

d) 269: . . . .

3 Draw the **mirror image** of each shape.

a)

b)

c)

4 The sides of a rectangular pond are 4 m 50 cm and 3 m 50 cm.

Draw a plan of the pond. Use a ruler. Let 1 m in real life be 1 cm on your plan.
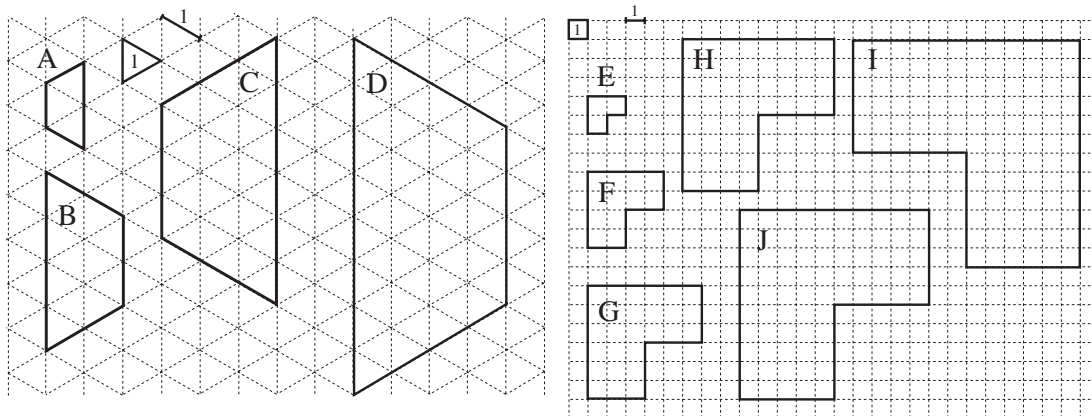
How long in real life is the
wall around the pond?

$P =$

Draw a water lily in the middle of the pond.

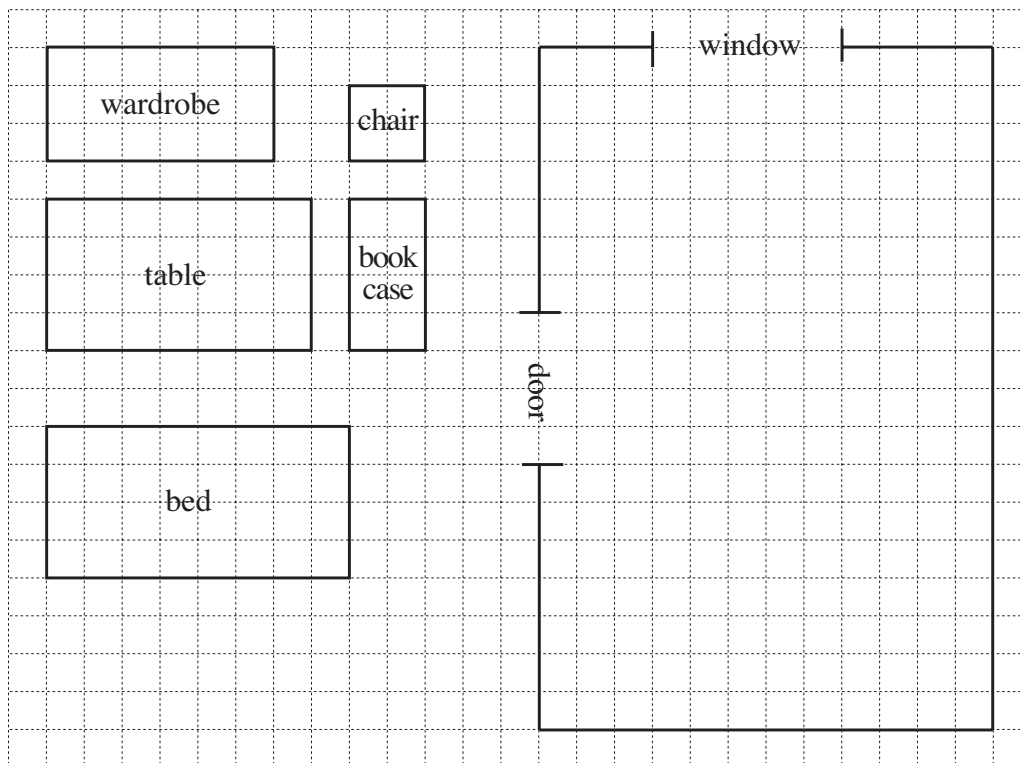**1** How many of the units shown are the area and perimeter of shapes A to J?

Area: A ☐ B ☐ C ☐ D ☐ units

E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ units

Perimeter: A ☐ B ☐ C ☐ D ☐ units

E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ units

2 How would you fit the furniture into the bedroom? Draw a plan to show it.
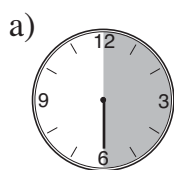

The scale of the plan is: 1 mm on the plan → 4 cm in real life.

Measure in the plan the sides of the room and the items of furniture.
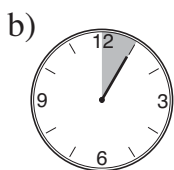Calculate the **real** lengths and write them beside each line in the plan.
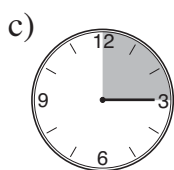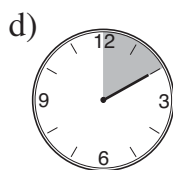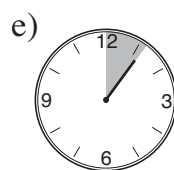
1 Only the minute hands are on the clocks. How many minutes do they show?

a) b) c) d) e)

half an hour | 1 twelfth of an hour | 1 quarter of an hour | 1 sixth of an hour | 1 tenth of an hour

☐ min. ☐ min. ☐ min. ☐ min. ☐ min.

2 How many millimetres are in these parts of 10 cm?

a)   1 half   b)   1 fifth   c)   1 tenth   d)   1 quarter

☐ mm   ☐ mm   ☐ mm   ☐ mm

3 Fill in the missing numbers. ('min' means 'minutes' and 'hrs' means 'hours')

a)   half an hour = ☐ min   b)   half a day = ☐ hrs

3 quarters of an hour = ☐ min   2 thirds of a day = ☐ hrs

3 fifths of an hour = ☐ min   3 quarters of a day = ☐ hrs

2 thirds of an hour = ☐ min   5 eighths of a day = ☐ hrs

5 sixths of an hour = ☐ min   1 twelfth of a day = ☐ hrs

3 tenths of an hour = ☐ min   1 and a half days = ☐ hrs

2 and a half hours = ☐ min   5 half days = ☐ hrs

4 Draw 1 unit if this is:
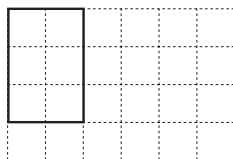
a)   3 quarters   b)   1 sixth   c)   7 eighths   d)   1 and a half
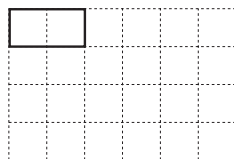
5 Draw a line 14 cm long. Colour over 3 sevenths of it.

1 Which positive whole numbers can be written instead of the shapes?
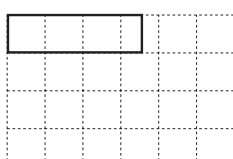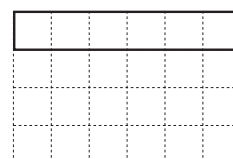
a) $936 + \triangle < 541 + 449$ $\triangle$: ....

b) $500 - 69 < 333 + \bigcirc \leq 433$ $\bigcirc$: ....

2 Round these numbers to the nearest ten.

a) $1876 \approx$ ☐   b) $555 \approx$ ☐   c) $210 \approx$ ☐

d) $99 \approx$ ☐   e) $-4 \approx$ ☐   f) $-8 \approx$ ☐

3 Continue the sequences.

a) 950, 800, 650, ...

b) $-10, -8, -6,$ ....

4 Robert went on a skiing holiday to Andorra. One day, he read the thermometer outside his hotel every hour from 6.00 am to 6.00 pm. These are his data.

Time (hours)	6	7	8	9	10	11	12	13	14	15	16	17	18
Temperature (°C)	-8	-10	-7	-3	0	2	5	7	8	7	3	1	-2

Help Robert to complete the graph.
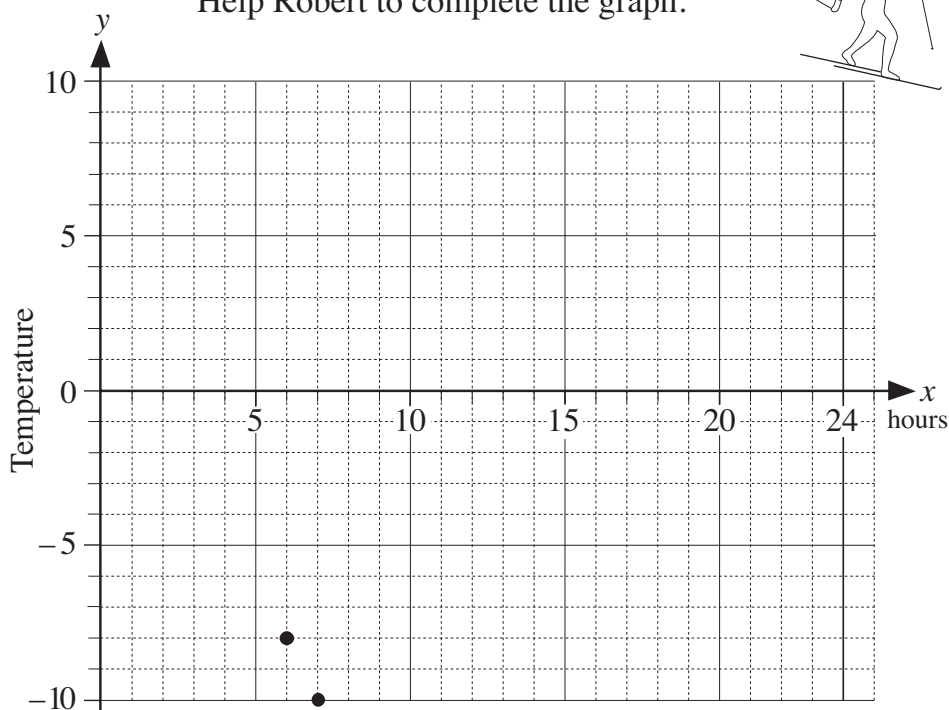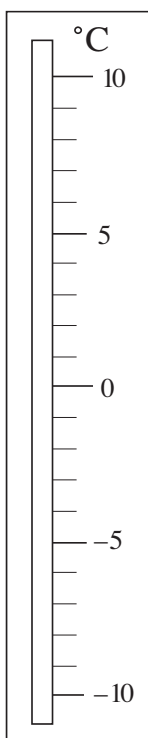
1 Are the inequalities correct? Mark with a ✔ or a ✘. Correct the mistakes.

a) $-8 < -2$ b) $-20 > -10$ c) $-5 < 5$ d) $-6 > -7$

e) $-10 < -9$ f) $-15 > -20$ g) $0 < -1$ h) $-50 < -2$

2 Round these numbers to the next nearest ten.

a) $1056 \approx$ ☐ $705 \approx$ ☐ $112 \approx$ ☐

b) $1966 \approx$ ☐ $550 \approx$ ☐ $401 \approx$ ☐

c) $-6 \approx$ ☐ $3 \approx$ ☐ $1005 \approx$ ☐

3 Write these numbers as Roman numerals.
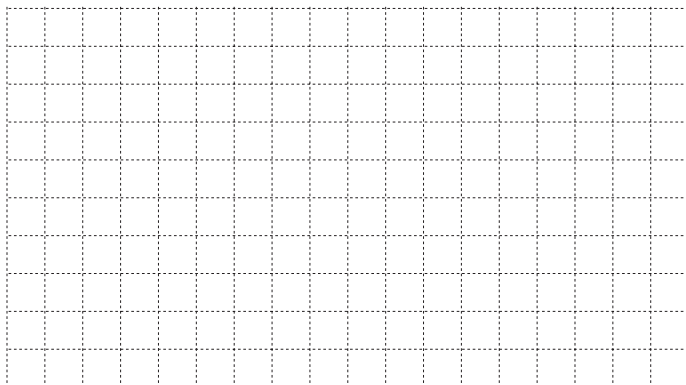
a) 1250   b) 2628   c) 599   d) 1973   e) 444

4 Draw a picture using straight lines. Choose a starting point. Write instructions on how you drew it for a friend to copy. (L: Left, R: Right, U: Up, D: Down)

5 Complete the drawing and the calculations.

$$\left(\boxed{500} \; \boxed{10} \; \textcircled{2} \right) \times 3 =$$

```
    5 1 2

+
```

```
  5 1 2 × 3
```

1 Calculate the answers using multiplication.

a) Six workers earned £409 each.
How much did they earn altogether?

Th	H	T	U		
				×	

Answer: . . . .

b) A salesman drives 423 km each working day.
How far does he drive from Monday to Friday?

Th	H	T	U		
				×	

Answer: . . . .

2 Estimate in your head first, then do the additions and multiplications.

a)

Hundreds	Tens	Units
100	10 10	① ① ① ① ①
100	10 10	① ① ① ① ①
100 100	10 10 10 10 10	

	H	T	U
	1	2	5
+	1	2	5

H	T	U	
1	2	5	× 2

b)

Thousands	Hundreds	Tens	Units
	100 100 100 100	10 10	① ① ① ① ① ① ① ① ①
	100 100 100 100	10 10	① ① ① ① ① ① ① ① ①
	100 100 100 100	10 10	① ① ① ① ① ① ① ①
1000	100 100	10 10 10 10 10	① ① ① ① ① ① ① ①

Th	H	T	U
	4	2	8
+			

	4	2	8	×	

3 Fill in the missing digits. Check that the multiplication is correct.

a)

3	2		×	3
		0		

4		2	×	2
	6			

b)

	1	4	×	
6		2		

	6		×	5
8		5		

c)

1			×	3
	7	5		

	8		×	4
7		8		

d)

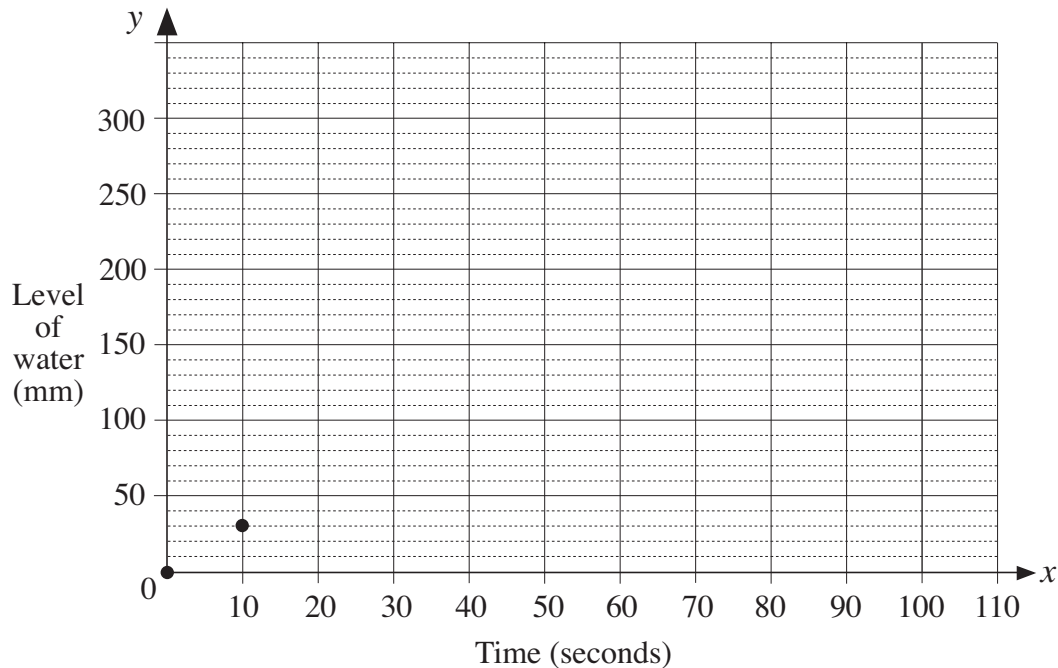|		6	×	
6	7	8		

	7	2	×	
6		8		

1 We ran water from a tap into a large square-based glass container. We made a note of the water level every 10 seconds.

a) Complete the table.

Time (seconds)	0	10	20	30		50	60			90	100	
Water level (mm)	0	30			120		210	240				330

b) Draw dots on the graph to show the data in the table. Join up the dots.

Level of water (mm)

Time (seconds)

c) Write the rule in different ways. L = Level of water, T = Time

L = T = $L \div T$ =

2 1 kg of tomatoes costs £2.08. Complete the table to show what several kg cost.

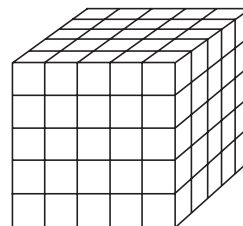| Quantity (kg)	1	6	4	9	5	7	1 and a half
Price (pence)	208						

3 What is the volume of each of these cuboids?

a)   b)
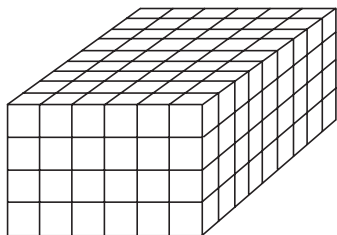
V = ... unit cubes V = ... unit cubes

1

Divide the amount into:

a) 5 equal parts $\boxed{100}$ $\boxed{100}$ $\boxed{100}$ $\boxed{100}$ $\boxed{100}$

ⓛ ⓛ ⓛ ⓛ ⓛ ⓛ ⓛ ⓛ ⓛ ⓛ

....

b) 3 equal parts $\boxed{100}$ $\boxed{100}$ $\boxed{100}$ $\boxed{100}$ $\boxed{100}$ $\boxed{100}$ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩

$\boxed{100}$ $\boxed{100}$ $\boxed{100}$ $\boxed{100}$ $\boxed{100}$ $\boxed{100}$

ⓛ ⓛ ⓛ ⓛ ⓛ ⓛ ⓛ ⓛ ⓛ

....

2

a) Write the whole numbers less than 31 in the correct sets.

	Divisible by 5	Not divisible by 5
Divisible by 2		
Not divisible by 2		

b) Write the labels missing from each of the number sets in the diagram.

0 6 12 18 24 30	2 4 8 10 14 16 20 22 26 28
3 9 15 21 27	1 5 7 11 13 19 23 25 29 17

3

Make a plan. Estimate, calculate and check the result. Write the answer.

a) Alice had £648 in her bank account. She spent 1 eighth of it.
   How much did she spend?

   Plan: . . . .   *Estimate*: . . . .

   Calculation: . . . .

   Check: . . . .   *Answer*: . . . .

b) Ben had £648 in his bank account. Frank had 1 quarter of Ben's amount.
   How much did Frank have in his account?

   Plan: . . . .   *Estimate*: . . . .

   Calculation: . . . .

   Check: . . . .   *Answer*: . . . .

1 Write the data. Make a plan. Estimate, calculate, check and write the answer.

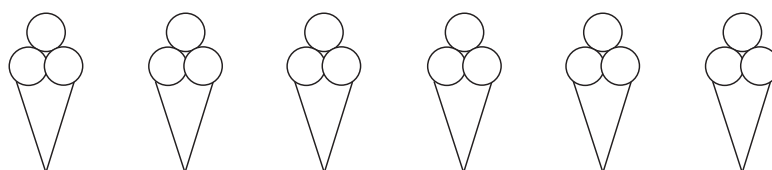4 tickets cost £5.68. How much would 7 of these tickets cost?

Data: . . . .   *Plan*: . . . .

. . . .   *Estimate:* . . . .

Calculation: . . . .

Answer: . . . .

---

2 You ask for a 3-scoop ice-cream saying, "Chocolate <u>and</u> strawberry <u>and</u> vanilla please". Colour the ice-creams to show what you could be given.
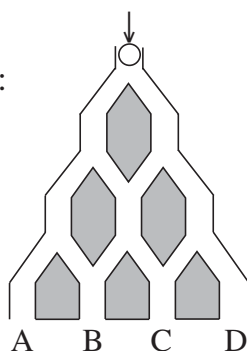
---

3 A marble is dropped into this maze. It has an equal chance of falling to the left or to the right.

a)   In how many ways can the marble come out at:

i)   A   . . . .

ii)   B   . . . .

iii)   C   . . . .

iv)   D?   . . . .

A   B   C   D

b)   Where is it more likely to come out?

. . . .

c)   What is the ratio of the chance of it coming out at A, B, C or D?

A   B   C   D

☐ : ☐ : ☐ : ☐

---

4 Do the operations in the correct order. Do the calculations in your exercise books.

a) $1500 \div 5 + 25 \times 4 \ = \ $ ☐

b) $(712 - 268) \div 2 + 20 \ = \ $ ☐

c) $20 \times 90 - 640 \div 8 \ = \ $ ☐

d) $735 \div 7 \times 3 \ = \ $ ☐

e) $591 - 9 \times 50 + 41 \ = \ $ ☐

f) $111 - 68 - 180 \div 6 \ = \ $ ☐

g) $1827 \div 3 - 360 \div 40 \ = \ $ ☐

h) $(823 - 157) \div 3 \times 2 \ = \ $ ☐

---

5 Colour equal values in the same colour.

($160 \div 8$)   ($1000 \div 50$)

(1 tenth of 200)   ($1800 \div 90$)   (2 thirds of 300)   ($450 \div 5 - 70$)

1

What data are needed? Make a plan. Calculate, check and write the answer.

Twins Peter and John's 2 sisters and 3 cousins clubbed together to buy them books for their birthday. Peter's 5 books cost £8.70 altogether and John's 3 books cost £10.35 altogether.

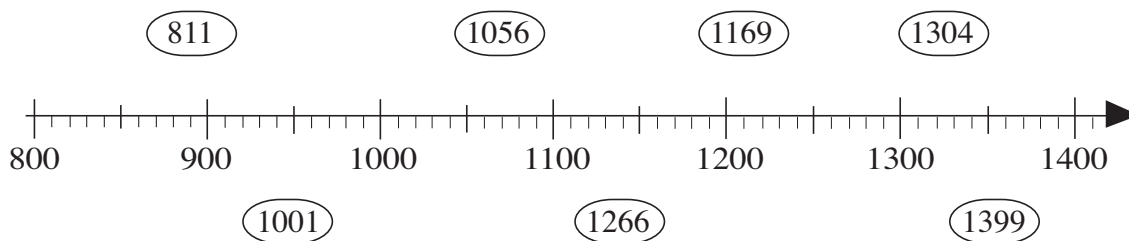How much did each sister or cousin pay if they shared the total cost?

Plan: . . . .   *Calculation*:
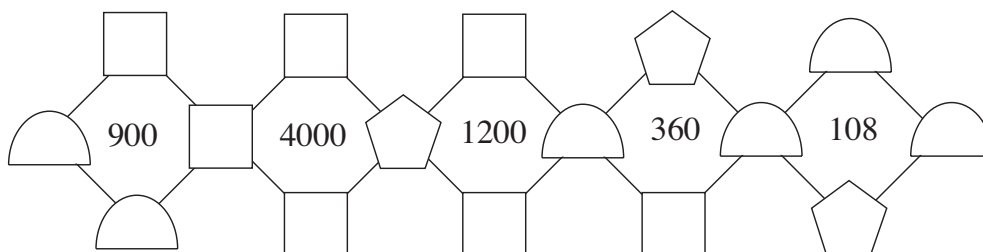
Check:

                        Answer: . . . .

2

Join up these numbers to the **approximate** place on the number line.

811   1056   1169   1304

```
|⊢⊢⊢⊢⊢|⊢⊢⊢⊢⊢|⊢⊢⊢⊢⊢|⊢⊢⊢⊢⊢|⊢⊢⊢⊢⊢|⊢⊢⊢⊢⊢|➤
800      900     1000    1100    1200    1300    1400
```

1001   1266   1399

3

The middle number is the product of the 4 numbers around it. Fill in the missing numbers.

900   4000   1200   360   108

4

Colour the parts stated. Compare the two rectangles. Fill in the missing sign.

a)   ◯   b)   ◯

   5 eighths   7 eighths   7 tenths   1 half

c)   ◯   d)   ◯

   3 quarters   3 eighths   3 fifths   1 quarter
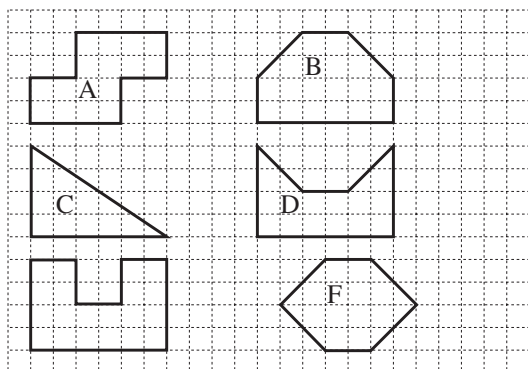
5

Continue the sequence in Roman numerals.

MCL, MC, ML, ...
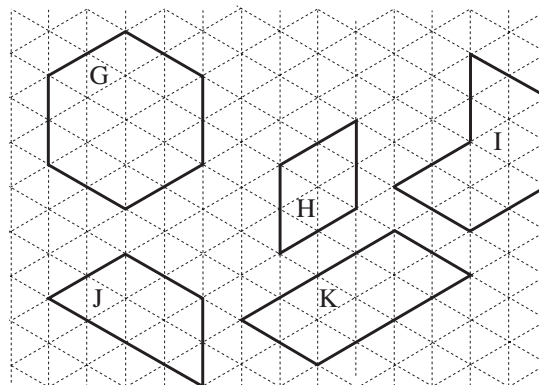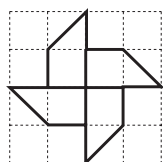
1 Reduce each shape to half its size.

a)

b)

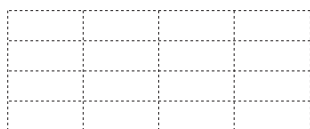**2**

Copy this drawing on the different grids.

a)

b)
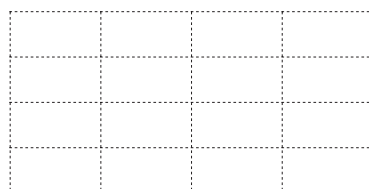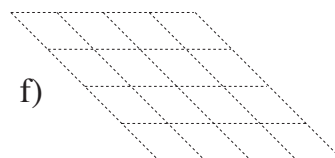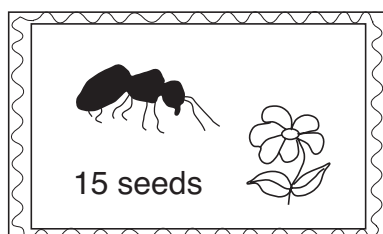

c)

d)

e)

f)

3 This is an enlarged copy of *Ant*'s postage stamp.

Scale: 1 cm on the copy $\rightarrow$ 1 tenth of a mm on the real stamp

15 seeds

a) Measure the sides of this copy.

w_1 = ... cm, h_1 = ... cm

b) Calculate the sides of the real stamp.

w_2 = ... mm

h_2 = ...mm

c) What is the perimeter of *Ant*'s stamp? . . . .

d) How many seeds would Ant need to collect to buy 29 of these stamps?

. . . .
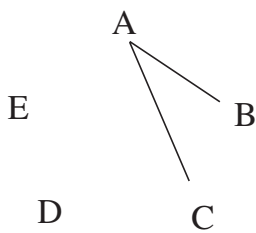
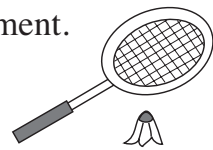**1** These houses were built with wooden blocks.

Draw their front, top and side views on a grid sheet or in your exercise books.
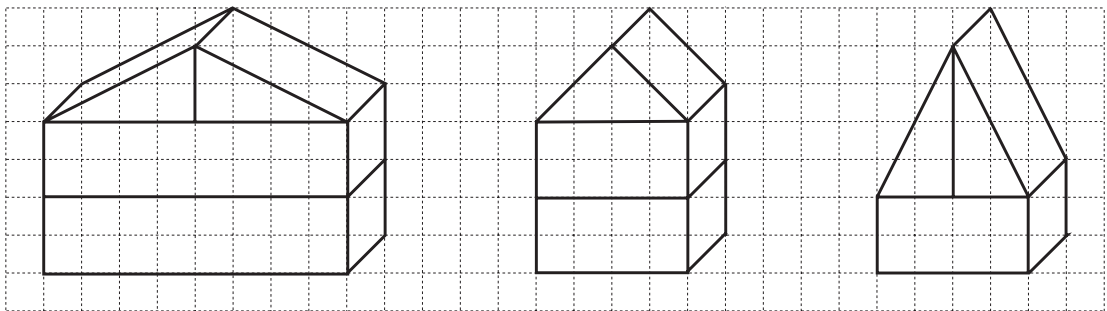
2

Five children are in a badminton tournament. They all have to play one another.

How many matches will be played altogether?

....

3 a) List in increasing order all the 3-digit numbers which have digits 1 or 2.

....

b) List in decreasing order all the 2-digit numbers which have digits 1, 2 or 3.

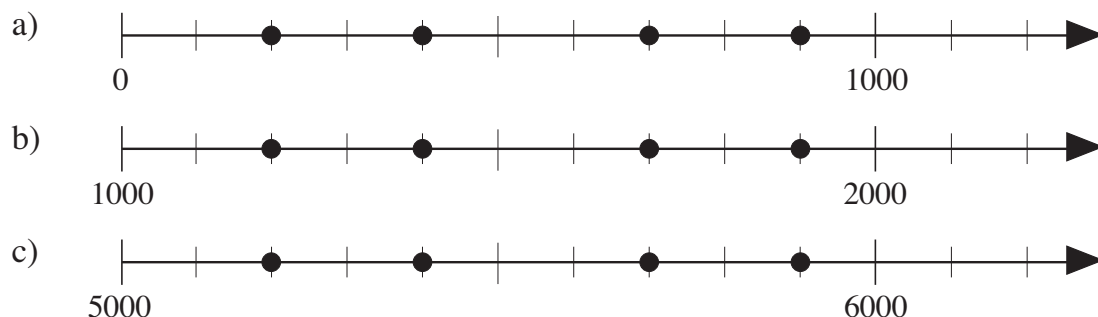..

4 Two boys and two girls had enough money for 1 ride in a dodgem car at the fair. They drew lots to see who would be the passenger and who would steer.

What chance was there of the two girls riding together?

....

5 Write the numbers below the dots.

a)

b)

c)

1 Change the lengths to the given units.

a) 18 cm = [   ] mm

240 cm = [   ] mm

5 cm 30 mm = [   ] mm

61 cm 9 mm = [   ] mm

b) 242 mm = [   ] cm [   ] mm

480 mm = [   ] cm [   ] mm

1263 mm = [   ] cm [   ] mm

4004 mm = [   ] cm [   ] mm

2 You are visiting a wildlife park and want to see all the animals.

This is the map of the park. | *Scale*: 1 mm on the map → 1m in real life |

Start
S

L

R

K

E

G
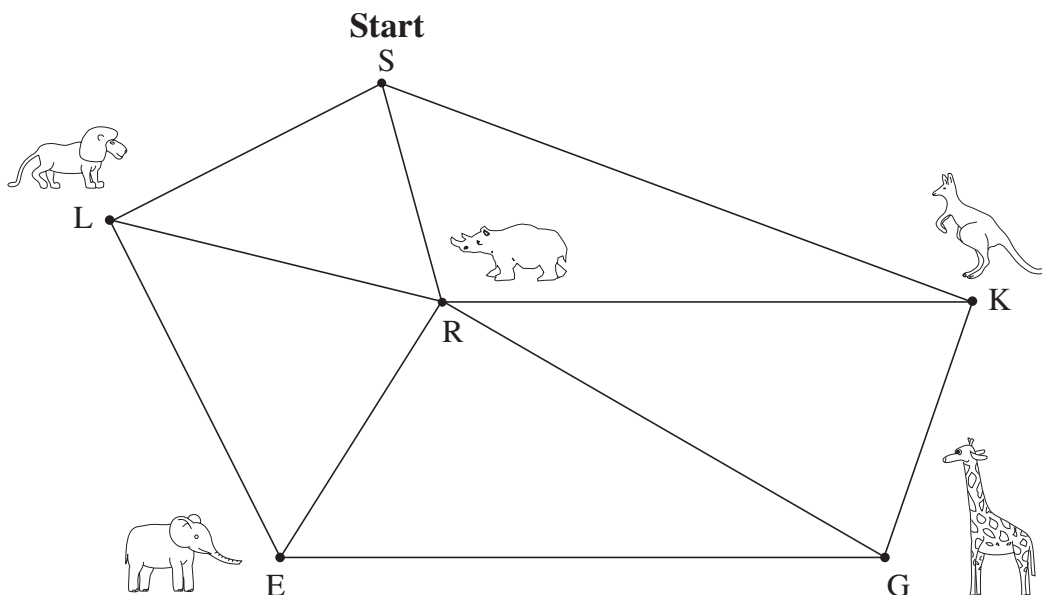
a) Measure each line on the map and write the length beside it.

b) Calculate the distances in real life and write in brackets beside the lines.

c) Begin and end at **Start**. Write the letter of each animal to show the routes.

   i) Find a route which allows you to visit all the animals. . . . .

   Total length = ...

   ii) Try to find a route which is less than 310 metres. . . . .

   Total length = ...

d) i) The ice-cream van is half-way between the elephants and the
      giraffes. Draw a dot on the map to show it and label it V.

   ii) The toilets are 30 m from the elephants on the road to the lions.
       Draw a cross on the map to show them and label it T.