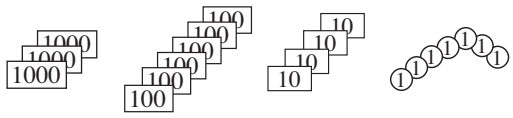
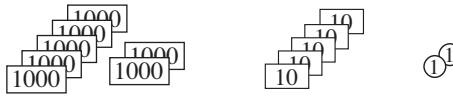
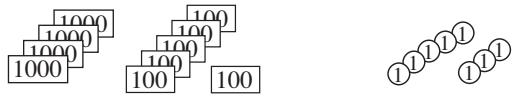
1 Write each amount in the place-value table and then in the box.

a) 

Th	H	T	U

b) 

Th	H	T	U

c) 

Th	H	T	U

2 Write these numbers with words in your exercise book.

a) i) 5032 ii) 5302 iii) 2035 iv) 2350

b) i) 1604 ii) 6401 iii) 4016 iv) 4601

3 Show each number as the sum of thousands, hundreds, tens and units.

Th	H	T	U	
1	6	3	4	= □□□□ + □□□ + □□ + □
3	4	0	7	= □□□□ + □□□ + □□ + □
8	0	2	5	= □□□□ + □□□ + □□ + □
7	2	0	5	= □□□□ + □□□ + □□ + □
8	0	0	8	= □□□□ + □□□ + □□ + □
6	0	3	0	= □□□□ + □□□ + □□ + □

4 Fill in the missing digits.

a) 2847 = □ × 1000 + □ × 100 + □ × 10 + □ × 1

b) 6570 = □ × 1000 + □ × 100 + □ × 10 + □ × 1

c) 4501 = □ × 1000 + □ × 100 + □ × 10 + □ × 1

d) 6600 = □ × 1000 + □ × 100 + □ × 10 + □ × 1

e) 965 = □ × 1000 + □ × 100 + □ × 10 + □ × 1

f) 4059 = □ × 1000 + □ × 100 + □ × 10 + □ × 1

g) 2874 = □ × 1000 + □ × 100 + □ × 10 + □ × 1

1 Write the numbers in the place-value table.

Eight thousand, three hundred and sixty three
Nine thousand and sixty four
Two thousand, seven hundred and five
Six thousand, nine hundred and seventy
Nine hundred and sixteen
$4 \times 1000 + 3 \times 100 + 8 \times 10 + 7 \times 1$
$2 \times 1000 + 9 \times 100 + 6 \times 10$
$5 \times 1000 + 4 \times 10 + 8 \times 1$
$1 \times 1000 + 5 \times 100 + 4 \times 1$
$8000 + 300 + 40 + 2$

TTh	Th	H	T	U

2 Fill in the missing digits and place values.

a) i) 7312 = ☐ Th + ☐ H + ☐ T + ☐ U

ii) 4067 = ☐ Th + ☐ H + ☐ T + ☐ U

iii) 9304 = ☐ Th + ☐ H + ☐ T + ☐ U

b) i) 6018 = 6 ☐ + 0 ☐ + 1 ☐ + 8 ☐

ii) 3568 = 3 ☐ + 5 ☐ + 6 ☐ + 8 ☐

iii) 2605 = 2 ☐ + 6 ☐ + 0 ☐ + 5 ☐

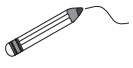
3 In your exercise book, write ten numbers:

a) in increasing order, starting at 2478 and counting up 7 at a time.

b) in decreasing order, starting at 5093 and counting down 50 at a time.

c) in increasing order, starting at 4803 and counting up 120 at a time.

4 Join up the equal values.



1Th + 5H + 3T

4000 + 300 + 20 + 5

MDXXX

$8 \times 100 + 7 \times 10 + 4 \times 1$

DCCCLXXIV

8H + 7T + 4U

$4 \times 1000 + 3 \times 100 + 2 \times 10 + 5 \times 1$

1530

$15 \times 100 + 30$

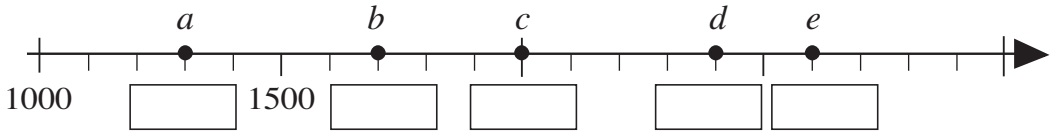
874

8Th + 7T + 4U

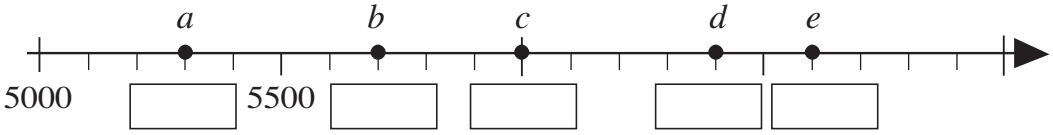
8000 + 70 + 4

1 Which numbers do the letters stand for? Write them in the boxes.

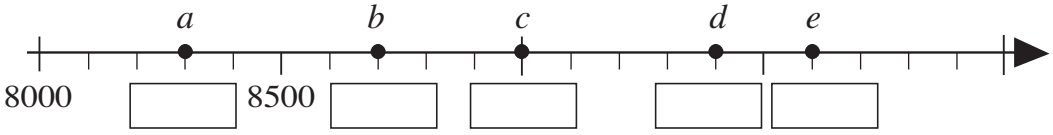
a)



b)

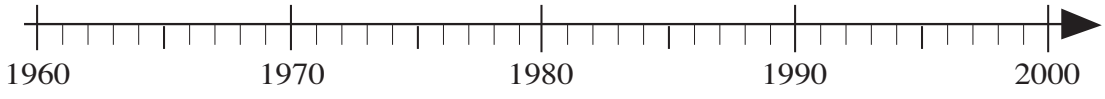


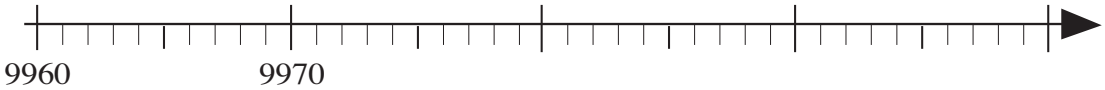
c)



2 Mark with a dot where each letter should be on the relevant number line.

$a = 1965$ $b = 9972$ $c = 1999$ $d = 9981$ $e = 1983$ $f = 9965$





3 Write the next smaller and greater whole tens, hundreds and thousands in the boxes.

☐	<	☐	<	☐	<	4263	<	☐	<	☐	<	☐
☐	<	☐	<	☐	<	6728	<	☐	<	☐	<	☐
☐	<	☐	=	☐	<	9806	<	☐	<	☐	<	☐
☐	<	☐	<	☐	<	7777	<	☐	<	☐	<	☐
☐	<	☐	<	☐	<	2222	<	☐	<	☐	<	☐

Colour the nearest ten *red*, the nearest hundred *green* and the nearest thousand *blue*.

4 Write in the boxes the numbers described.

a) The smallest 4-digit: i) number ☐ ii) odd number ☐

b) The greatest 4-digit: i) number ☐ ii) odd number ☐

c) The greatest 4-digit number divisible by: i) 5 ☐ ii) 10 ☐

d) The greatest 4-digit number divisible by 100 which has the same digit in its hundreds and thousands columns. ☐

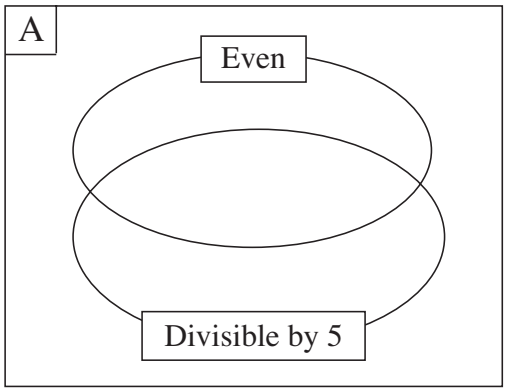
1 Write the numbers in the correct places in the set diagrams.

$$A = \{ 0,\ 5,\ 9,\ 12,\ 60,\ 67,\ 275,\ 354,\ 4030,\ 6455,\ 8000 \}$$

a)

	Divisible by 5	Not divisible by 5
Even		
Odd		

b)

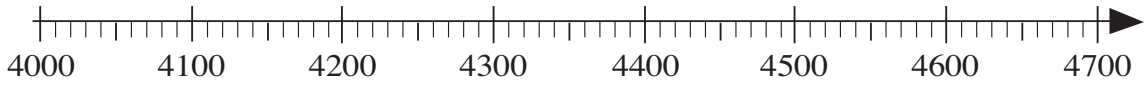


2 Round the numbers to the nearest:

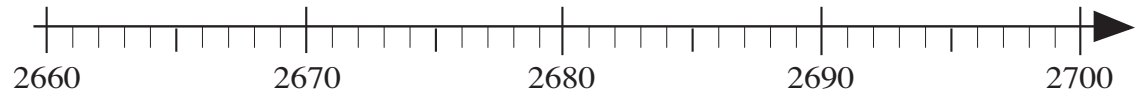
		ten	hundred	thousand
a)	2374	≈ ☐☐☐☐	≈ ☐☐☐☐	≈ ☐☐☐☐
b)	8527	≈ ☐☐☐☐	≈ ☐☐☐☐	≈ ☐☐☐☐
c)	6285	≈ ☐☐☐☐	≈ ☐☐☐☐	≈ ☐☐☐☐
d)	3600	= ☐☐☐☐	= ☐☐☐☐	≈ ☐☐☐☐
e)	9819	≈ ☐☐☐☐	≈ ☐☐☐☐	≈ ☐☐☐☐☐
f)	5499	≈ ☐☐☐☐	= ☐☐☐☐	≈ ☐☐☐☐

3 Mark on the number lines those numbers which round to:

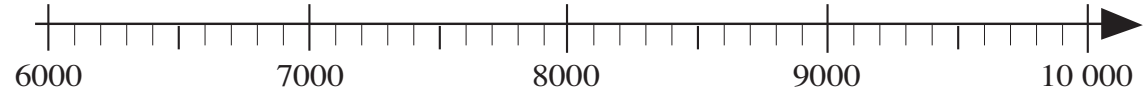
a) 4500, to the nearest hundred



b) 2680, to the nearest ten



c) 8000, to the nearest thousand.



1 Practise addition.

a)	$5 + 2 =$	$50 + 20 =$	$500 + 200 =$	$5000 + 2000 =$
b)	$3 + 6 =$	$30 + 60 =$	$300 + 600 =$	$6000 + 3000 =$
c)	$8 + 2 =$	$80 + 20 =$	$800 + 200 =$	$2000 + 8000 =$
d)	$3 + 4 =$	$32 + 45 =$	$320 + 456 =$	$3200 + 4500 =$

2 Practise subtraction.

a)	$8 - 5 =$	$80 - 50 =$	$800 - 500 =$	$8000 - 5000 =$
b)	$90 - 40 =$	$900 - 400 =$	$9000 - 4000 =$	$19\,000 - 4000 =$
c)	$10 - 3 =$	$100 - 30 =$	$1000 - 300 =$	$10\,000 - 3000 =$
d)	$7 - 6 =$	$78 - 64 =$	$740 - 680 =$	$7800 - 6400 =$

3 Fill in the missing numbers.

a)	$30 + \square = 70$,	$300 + \square = 700$,	$3000 + \square = 7000$
b)	$80 - \square = 20$,	$800 - \square = 200$,	$8000 - \square = 2000$
c)	$\square + 40 = 70$,	$\square + 400 = 700$,	$\square + 4000 = 7000$
d)	$\square - 60 = 20$,	$\square - 600 = 200$,	$\square - 6000 = 2000$
e)	$8 + \square = 13$,	$800 + \square = 1300$,	$8000 + \square = 13\,000$
f)	$\square - 90 = 30$,	$1200 - \square = 900$,	$\square - 9000 = 3000$

4 Write operations and calculate the result.

a) What is the sum of 4300 and 2800?

. . . . . .

b) What is the difference between 4300 and 2800?

. . . . . .

c) One term in an addition is 1800. The sum is 5300. What is the other term?

. . . . . .

d) What is the subtrahend if the reductant is 5300 and the difference is 1800?

. . . . . .

1 Do the calculations. Colour the equal results in the same colour.

a) $4600 + 3900 =$ ☐

b) $4600 + 4000 - 1000 =$ ☐

c) $3900 + 4000 + 600 =$ ☐

d) $3900 + 4000 - 600 =$ ☐

e) $9700 - 1200 =$ ☐

f) $9700 - 1000 + 200 =$ ☐

g) $9700 - 2000 + 800 =$ ☐

h) $10\,000 - 1200 - 300 =$ ☐

2 Calculate the sums as simply as you can. Show your calculations in detail.

a) $360 + 4900 + 4100 + 40 =$

b) $2840 + 650 + 3050 + 160 =$

c) $410 + 5330 + 2390 + 70 =$

3 Do part a) in your exercise book. Use the result to help answer parts b) and c).

Ann had 7500 p. How much more did she have than:

a) Peter if Peter had 2300 p . . . . . .

b) John if John had 2200 p . . . . . .

c) Diane if Diane had 1300 p? . . . . . .

4 Do part a) in your exercise book. Use the result to help answer parts b) and c).

Each pupil on a school trip spent 3500 p. How much money did:

a) Finlay have left if he took 7000 p . . . . . .

b) Emma have left if she took 6800 p . . . . . .

c) Lee have left if he took 7300 p? . . . . . .

5 Complete the **magic squares**.

The sum of any row, column or diagonal is the same.

a)

5000	2000	2000
	3000	

b)

		2000
	3000	
4000		2500

1 Estimate quickly, then calculate the sum.

a) 2653 + 1746

E: *C:*

b) 1256 + 7902

E: *C:*

c) 5343 + 2145

E: *C:*

2 Complete the additions and then check them.

a)

	7	8	5	6
+				
	9	4	0	8

b)

+	2	5	3	7
	7	4	5	9

c)

	7	3	7	6
+				
1	1	5	5	5

d)

	4		3	6
+		7	8	
	7	8		3

3 Estimate first then calculate the difference. Check the subtraction in two ways.

a) 8587 – 5362 ≈

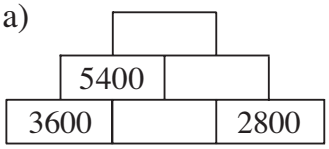
C: *Check:*

b) 4567 – 1572 ≈

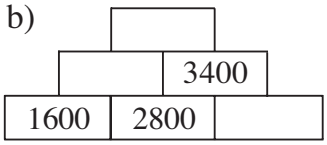
C: *Check:*

4 The sum of any two adjacent numbers is the number directly above them. Fill in the missing numbers.

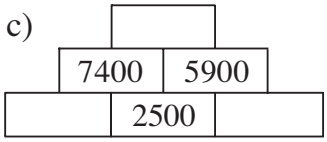
a)



b)



c)



1 Do the operations in the correct order.

Calculations

a) i) $8152 - 3728 + 1596 =$ ☐

ii) $(8152 - 3728) + 1596 =$ ☐

iii) $8152 - (3728 + 1596) =$ ☐

b) i) $7020 - 3158 - 1976 =$ ☐

ii) $(7020 - 3158) - 1976 =$ ☐

iii) $7020 - (3158 - 1976) =$ ☐

2 Fill in the missing numbers.

a)

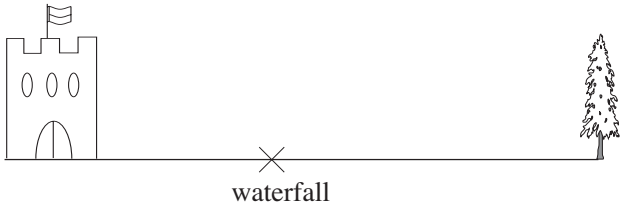
3600	+	1800	=	☐
+		+		+
1900	+	2600	=	☐
=		=		=
☐	+	☐	=	☐

b)

12 500	–	3500	=	☐
–		–		–
7200	–	☐	=	5400
=		=		=
☐	–	☐	=	☐

3 Solve the problem.

The castle is 9 km 68 m from the forest. There is a waterfall between the castle and the forest. It is 2 km 456 m nearer to the castle than to the forest.



How far away is the waterfall from the castle?

. . . . . .

4 Write a plan, do the calculation and write the answer in your exercise book.

a) In *Appletown*, the number of inhabitants is 6548. The number of females is 3308. How many males live there?

b) In *Bananaville*, there are 5476 females, 260 more than the number of males. How many males live there?

c) There are 9500 inhabitants in *Dombleland*, 2500 more adults than children. How many adults and how many children live there?

1 Write the products.

a)	$3 \times 6 =$	$30 \times 6 =$	$3 \times 60 =$	$30 \times 60 =$
b)	$8 \times 4 =$	$80 \times 4 =$	$800 \times 4 =$	$80 \times 40 =$
c)	$9 \times 3 =$	$90 \times 3 =$	$9 \times 300 =$	$90 \times 30 =$
d)	$8 \times 7 =$	$80 \times 7 =$	$8 \times 70 =$	$800 \times 7 =$
e)	$6 \times 7 =$	$60 \times 7 =$	$600 \times 7 =$	$6 \times 700 =$
f)	$9 \times 9 =$	$90 \times 9 =$	$900 \times 9 =$	$90 \times 90 =$

2 Fill in the missing numbers.

a)	$8 \times \square = 24$	$8 \times \square = 240$	$8 \times \square = 2400$
b)	$5 \times \square = 45$	$5 \times \square = 450$	$5 \times \square = 4500$
c)	$6 \times \square = 30$	$6 \times \square = 3000$	$6 \times \square = 3000$
d)	$9 \times \square = 36$	$9 \times \square = 360$	$90 \times \square = 3600$
e)	$4 \times \square = 28$	$40 \times \square = 280$	$40 \times \square = 2800$
f)	$6 \times \square = 54$	$60 \times \square = 540$	$60 \times \square = 5400$

3 Write the products.

a)	$3 \times 4 =$	$30 \times 4 =$	$300 \times 4 =$
	$13 \times 4 =$	$130 \times 4 =$	$1300 \times 4 =$
	$43 \times 4 =$	$430 \times 4 =$	$4300 \times 4 =$
b)	$9 \times 2 =$	$90 \times 2 =$	$900 \times 2 =$
	$19 \times 2 =$	$190 \times 2 =$	$1900 \times 2 =$
	$89 \times 2 =$	$890 \times 2 =$	$8900 \times 2 =$

4 Fill in the missing numbers.

a)	$36 \div 6 =$	$360 \div 6 =$	$3600 \div 60 =$	$3600 \div 6 =$
b)	$72 \div 8 =$	$720 \div 8 =$	$7200 \div 80 =$	$7200 \div 8 =$
c)	$45 \div 5 =$	$450 \div 5 =$	$4500 \div 50 =$	$4500 \div 5 =$

d) $24 \div \square = 3$, $240 \div \square = 3$, $240 \div \square = 30$, $2400 \div \square = 30$

e) $35 \div \square = 5$, $350 \div \square = 5$, $350 \div \square = 50$, $3500 \div \square = 50$

f) $24 \div \square = 6$, $240 \div \square = 6$, $240 \div \square = 60$, $2400 \div \square = 60$

1

Fill in the missing numbers.

a)

	Th	H	T	U
	3	2	5	1
	3	2	5	1
+	3	2	5	1

Th	H	T	U		
3	2	5	1	×	3

$3 \times 1U = \square\ U$

$3 \times 5T = \square\ T = \square\ H + \square\ T$

$3 \times 2H + \square\ H = \square\ H$

$3 \times 3Th = \square\ Th$

b)

	Th	H	T	U
	1	7	5	6
	1	7	5	6
+	1	7	5	6
	1	7	5	6

Th	H	T	U		
1	7	5	6	×	4

$4 \times 6U = \square\ U = \square\ T + \square\ U$

$4 \times 5T + \square\ T = \square\ T = \square\ H + \square\ T$

$4 \times 7H + \square\ H = \square\ H = \square\ Th + \square\ H$

$4 \times 1Th + \square\ Th = \square\ Th$

2

Estimate first, then calculate with addition and with multiplication.

a) *E:* .....

$$\begin{array}{r} 2647 \\ 2647 \\ 2647 \\ +\ 2647 \\ \hline \\ \hline \end{array} \qquad \begin{array}{r} 2647 \times \square \\ \hline \\ \hline \end{array}$$

b) *E:* .....

$$\begin{array}{r} 1678 \\ 1678 \\ 1678 \\ 1678 \\ 1678 \\ +\ 1678 \\ \hline \\ \hline \end{array} \qquad \begin{array}{r} 1678 \times \square \\ \hline \\ \hline \end{array}$$

3

Which is more? How many more? Write in the missing signs and differences.

a) 6 times 1480 ◯ 3 times 2960 □

b) 9 times 875 ◯ 5 times 1420 □

c) 4 times 3100 ◯ 7 times 1800 □

d) 8 times 734 ◯ 2 times 2931 □

4

2	3	4	5	6

Write these digits in the boxes so that the product is less than 10 000 and it is

a) odd

$\square\square\square\square \times \square$

b) even

$\square\square\square\square \times \square$

c) a 4-digit number

$\square\square\square\square \times \square$

1

Fill in the missing numbers.

a) $8 \times \square = 48$ $\quad 80 \times \square = 480$ $\quad 800 \times \square = 4800$

$4 \times \square = 48$ $\quad 40 \times \square = 480$ $\quad 400 \times \square = 4800$

$16 \times \square = 48$ $\quad 160 \times \square = 480$ $\quad 1600 \times \square = 4800$

b) $36 \div \square = 4$ $\quad 3600 \div \square = 4$ $\quad \square \div 9 = 400$

$360 \div \square = 4$ $\quad 3600 \div \square = 40$ $\quad \square \div 90 = 40$

$360 \div \square = 40$ $\quad 3600 \div \square = 400$ $\quad \square \div 900 = 4$

2

Divide 7640 into 3 equal parts. Fill in the missing items.

Calculation:

	Th	H	T	U
3	7	6	4	0

E: $6000 < 7640 < 9000$

$\square <$ quotient $< \square$

Details:

7 Th ÷ 3 = ☐ Th, because

☐ Th × 3 = ☐ Th, and 1 Th remains.

1 Th + 6 H = 16H; 16H ÷ 3 = ☐ H, because

☐ H × 3 = ☐ H, and ☐ H remains.

1H + 4T = 14T; 14T ÷ 3 = ☐ T, because

☐ T × 3 = ☐ T, and ☐ T remains.

2T + 0U = 20 U, 20 U ÷ 3 = ☐ U, because

☐ U × 3 = ☐ U,

and ☐ U remains.

3

Do the divisions and check them with multiplication.

a)

	Th	H	T	U
5	6	1	5	7

← 1 Th × 5

← ☐ H × 5

← ☐ T × 5

← ☐ U × 5

Ch:

					×	5
				+		

b)

	Th	H	T	U
8	7	3	4	8

← ☐ H × 8

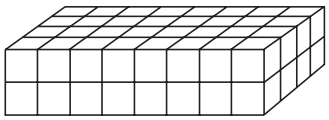
← ☐ T × 8

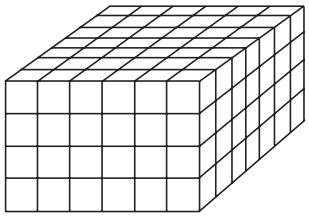
← ☐ U × 8

Ch:

					×	8
				+		

1 How many unit cubes have been used to build the cuboids?
Calculate the volume in 3 different ways.

a) 

b) 

V = ... V = ...

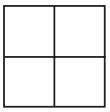
V = ... V = ...

V = ... V = ...

2 Fill in the missing numbers.

a) $1256 \times 6 = 1256 \times 5 +$ ☐

b) $2432 \times 3 = 2433 \times 3 -$ ☐

3 

a) How many squares can you count in this diagram? .....

b) How many squares could you count in

i) 675 of these diagrams .....

ii) 1060 of these diagrams? .....

4 Solve the problems in your exercise book.

a) 964 soldiers are on parade. They are marching in rows of 6.

i) How many rows are there?

ii) Does the last row contain fewer soldiers than the other rows?

b) What would your answers be if the soldiers were marching in a rows of 8?

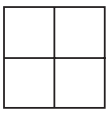
5 Fill in the missing numbers.

a) 9360 $\xrightarrow{\div 2}$ ☐ $\xrightarrow{\div 3}$ ☐ $\xrightarrow{\div 4}$ ☐ $\xrightarrow{\div 5}$ ☐ $\xrightarrow{\div 6}$ ☐

b) 9360 $\xrightarrow{\div 4}$ ☐ $\xrightarrow{\div 5}$ ☐ $\xrightarrow{\div 2}$ ☐ $\xrightarrow{\div 6}$ ☐ $\xrightarrow{\div 3}$ ☐

c) 9360 $\xrightarrow{\div 3}$ ☐ $\xrightarrow{\div 6}$ ☐ $\xrightarrow{\div 5}$ ☐ $\xrightarrow{\div 4}$ ☐ $\xrightarrow{\div 2}$ ☐

1



a) How many rectangles are in this diagram? . . . . . .

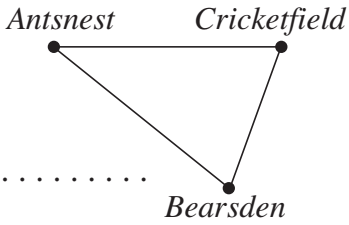
b) How many rectangles would be in 874 such diagrams? . . . . . .

c) What is the **area** of the diagram? A = ...

d) What is the **perimeter** of the diagram? P = ...

2

Scale: 1 cm on the diagram → 875 m in real life



a) How far away in real life is:

i) *Bearsden* from *Antsnest*? . . . . . .

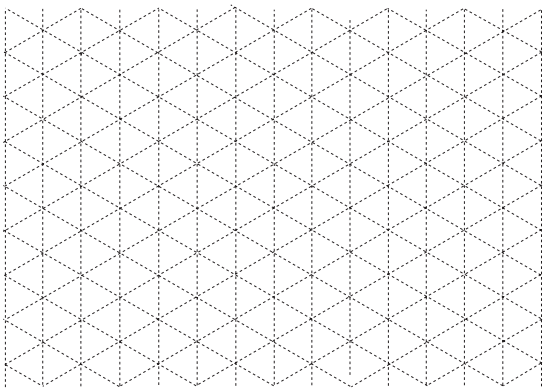
ii) *Cricketfield* from *Antsnest*? . . . . . .

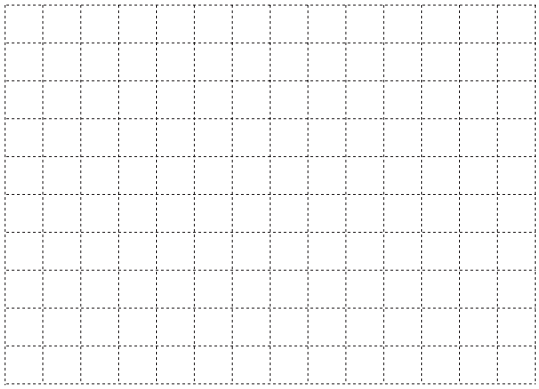
b) What distance in real life is the round trip? . . . . . .

3

a) Draw 9-unit perimeters which enclose a triangle, a quadrilateral and a pentagon.

b) Draw 16-unit perimeters which enclose different rectangles.

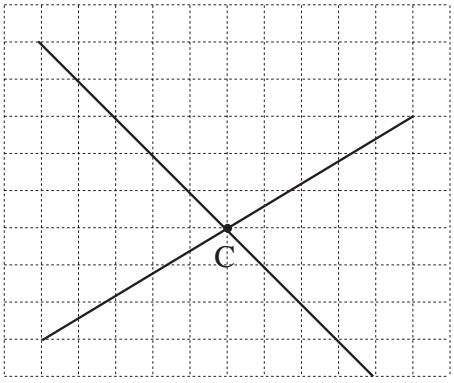




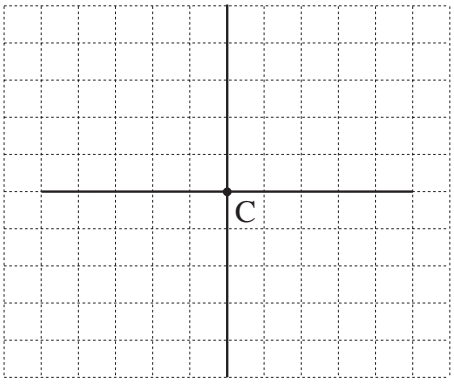
4

Measure 2 cm from point C on the lines. Join up the points.

a)



b)



What shapes have you made? . . . . . .

1 In your exercise book, make a plan, estimate, calculate, check and write the answer as a sentence.

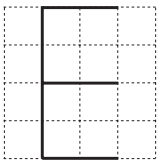
a) The highest mountain in Europe is *Mont Blanc* which is 4810 m high. It is 4032 m lower than *Mount Everest*. How high is *Mount Everest*?

b) The *River Danube* is 2850 km long and the *River Nile* is 6670 km long. How much longer is the *River Nile* than the *River Danube*?

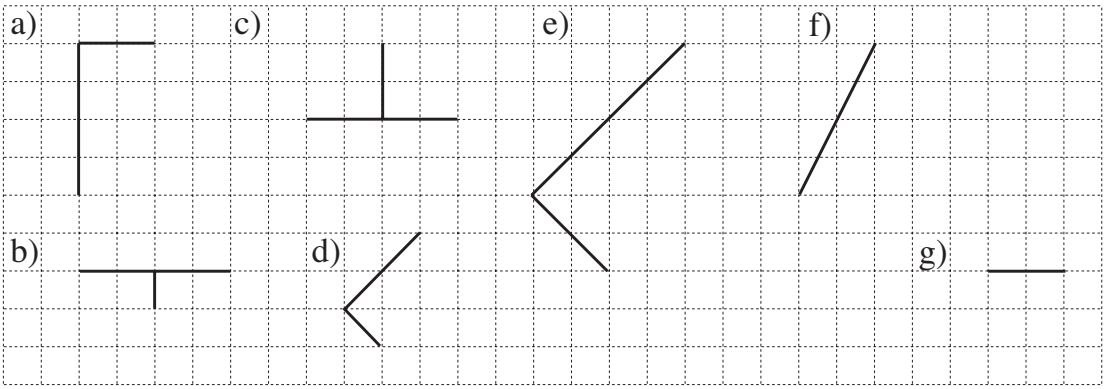
c) The deepest point in the Pacific Ocean is near Japan and is 10 680 m below sea level. The highest point in Japan is 3776 m above sea level.

What is the difference between these two points?

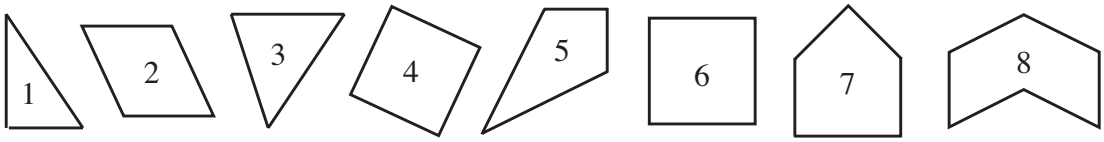
2 Mark the **parallel** and **perpendicular** lines on this capital E.



We started to draw the letter E on this grid in different positions and sizes. Complete the drawings.



3 List the polygons for which each statement is true.



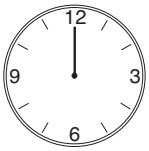
a) It has a right angle. . . . . .

b) Every angle is a right angle. . . . . .

c) It has no right angles. . . . . .

d) It has an angle which is not a right angle. . . . . .

e) Every angle is a right angle but it is not a rectangle. . . . . .

4 

The minute hand on the clock is pointing to 12 o'clock.

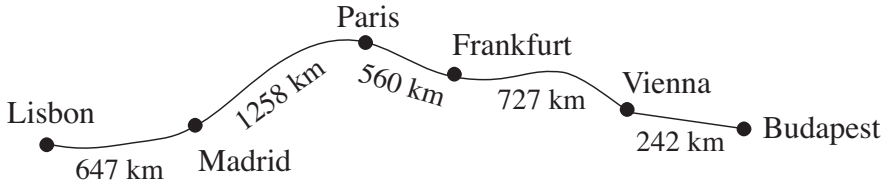
Through how many right angles will it turn after

a) 15 minutes ☐ b) 30 minutes ☐ c) 45 minutes? ☐

1 In your exercise book, make a plan, estimate, calculate, check and write the answer as a sentence.

a) The distance between *Budapest* (Hungary) and *London* (UK) is 1450 km. It is 5950 km less than the distance between *Washington* (USA) and *Budapest*.
How far is *Washington* from *Budapest?*

b) A tourist drew this rough map of where he had travelled.



i) How far did he travel from *Lisbon* to *Budapest*?

ii) Which part of his route was longer, *Lisbon* to *Paris* or *Paris* to *Budapest*?

2 In a dress pattern, there are these different shapes of pocket to choose from.

List the shapes for which each statement is true.

a) It has only straight sides. . . . . .

b) It has at least one straight side. . . . . .

c) It has only curved lines. . . . . .

d) It is a pentagon. . . . . .

e) It has parallel sides. . . . . .

f) It has perpendicular sides. . . . . .

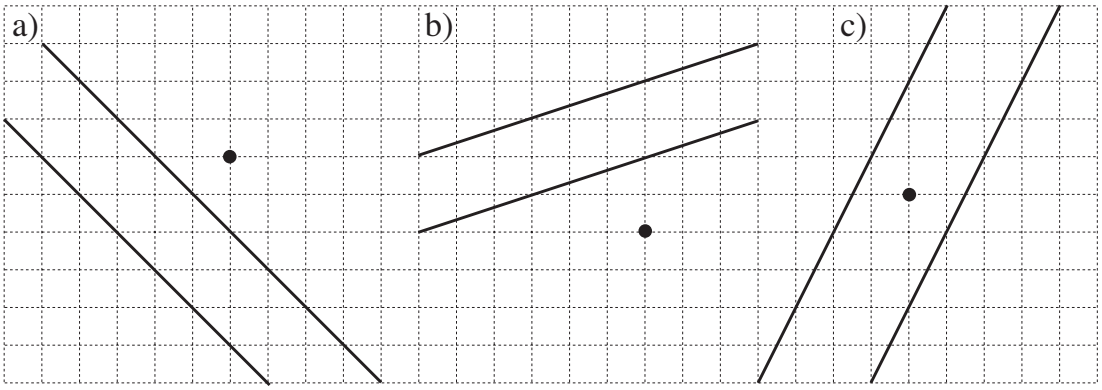
g) It is a quadrilateral. . . . . .

h) It is a hexagon. . . . . .

i) It is a rectangle. . . . . .

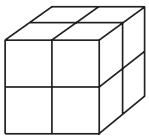
j) It is a square . . . . . .

3 Draw a line through the point given so that it is parallel to the other two lines.



1

Do the calculations for b) and c) in your exercise book.



a) How many unit cubes does this cube contain? . . . . . .

b) How many unit cubes would 1176 of these cubes contain?

c) How many of these large cubes could be built from 9648 unit cubes?

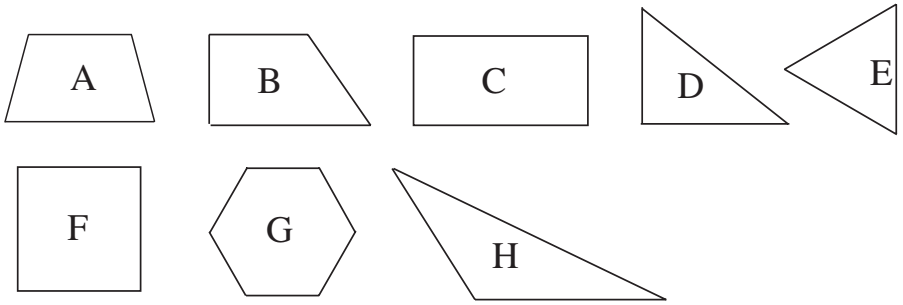
2

a) In each diagram, mark

- right angles in *red* like this, 

- angles **smaller** than a right angle in *blue* like this, 

- angles **larger** than a right angle in *green* like this. 



b) List the letters of the shapes for which each statement is true.

i) It is a square. . . . . ii) It is a rectangle. . . . . .

iii) It is a quadraliteral. . . . . iv) It is a triangle. . . . . .

v) It has at least one right angle. . . . . .

vi) Every angle is a right angle. . . . . .

vii) It has at least one angle smaller than a right angle. . . . . .

viii) All its angles are smaller than a right angle. . . . . .

ix) It has at least one angle larger than a right angle. . . . . .

x) All its angles are larger than a right angle. . . . . .

3

Two sides of a quadrilateral have been drawn. Complete the shape so that:

a) it has at least one right angle

b) 2 of its sides are parallel

c) it has 2 pairs of parallel sides.