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mock papers 1-foundation

1 (a) Write the number **three thousand one hundred and nine** in figures.

.....
(1)

(b) Write down the value of the 6 in the number 23.469

.....
(1)

(c) Write the number 4261 correct to the nearest hundred.

.....
(1)

(Total for Question 1 is 3 marks)

2 Mr Morris is going to take his family to the zoo.

Ticket prices (per person)	
Adult	£16.50
Child (3 – 14)	£13.50
Child (under 3)	free

Mr Morris wants to buy tickets for two adults and two children aged 2 and 4

(a) How much in total will the tickets cost?

£
(2)

Mr Morris pays with three £20 notes.

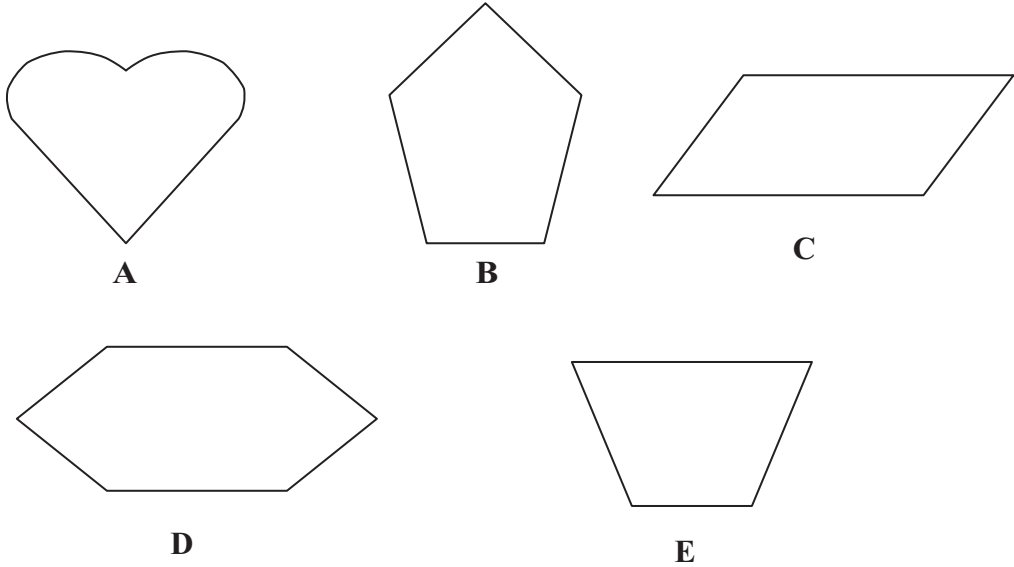
(b) How much change should he get?

£
(2)

(Total for Question 2 is 4 marks)

Turn over ►

3 Here are five shapes.



One of these shapes is a parallelogram.

(a) Write down the letter of this shape.

.....
(1)

One of these shapes has exactly **two** lines of symmetry.

(b) Which shape?

.....
(1)

(c) Write down the order of rotational symmetry of shape C.

.....
(1)

(Total for Question 3 is 3 marks)

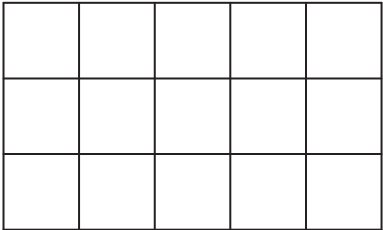
4 (a) Write $\frac{1}{4}$ as a decimal.

(1)

(b) Write the fraction $\frac{18}{24}$ in its simplest form.

(1)

(c) Shade $\frac{3}{5}$ of this shape.



(1)

(Total for Question 4 is 3 marks)

Turn over ►

5 Here are some patterns made from sticks.



Pattern number 1



Pattern number 2



Pattern number 3

(a) Draw Pattern number 4 in the space below.

(1)

(b) How many sticks are needed for Pattern number 12?

(2)

Sunil says that he will need 70 sticks for Pattern number 20

(c) Is Sunil correct?
You must give a reason for your answer.

(2)

(Total for Question 5 is 5 marks)

6 Here is a list of eight numbers

4 5 25 29 30 33 39 40

From the list, write down

- (i) a factor of 20

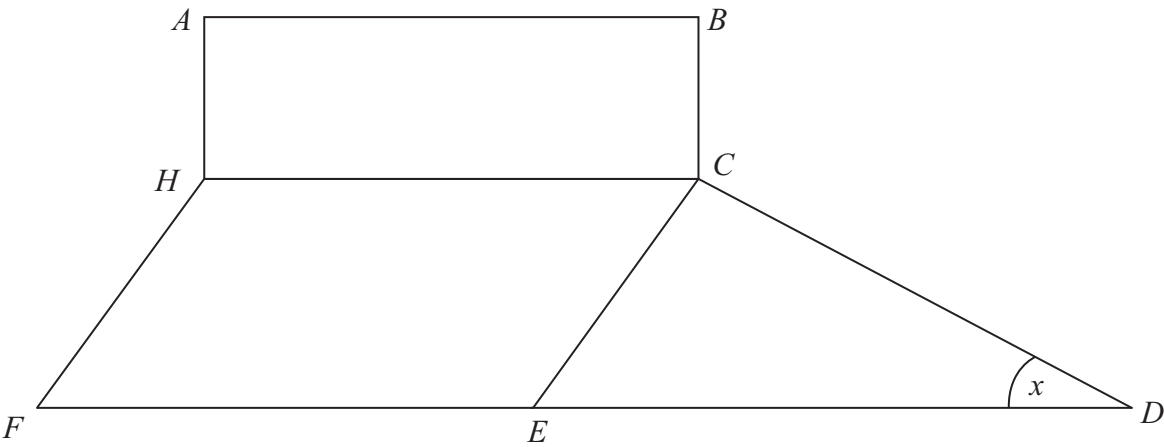
.....
- (ii) a multiple of 10

.....
- (iii) the prime number that is greater than 15

.....

(Total for Question 6 is 3 marks)

7 The diagram shows a rectangle, a parallelogram and a triangle.



- (a) Mark with arrows ($\gg$) a pair of parallel lines.

(1)
- (b) What type of angle is the angle marked x ?

.....

(1)
- (c) Mark the angle HCE with the letter y .

(1)

(Total for Question 7 is 3 marks)

Turn over ►

8 At midnight the temperature was -9°C .
By 10 am, the temperature had risen by 8°C .

(a) Work out the temperature at 10 am.

..... $^{\circ}\text{C}$
(1)

At midday the temperature was 5°C .

(b) Work out the difference between the temperature at midnight
and the temperature at midday.

..... $^{\circ}\text{C}$
(2)

On another day

the temperature at midnight was -7°C ,
the temperature at 10 am was -1°C and
the temperature at midday was 3°C .

Jenny says that, on this day, the temperature at 10 am is halfway between
the temperatures at midnight and at midday.

(c) Is Jenny correct?
You must give a reason for your answer.

.....
.....
.....
(2)

(Total for Question 8 is 5 marks)

*9 Jerry is making some shelves.
He needs
5 pieces of wood of length 65 cm
2 pieces of wood of length 110 cm.

The wood is sold in three different lengths.
Information about these lengths is shown in the table.

Length	Cost
100 cm	£21
150 cm	£25
180 cm	£28

Jerry wants to pay as little money as possible.
How much will Jerry have to pay?

You must show your working.

(Total for Question 9 is 4 marks)

Turn over ►

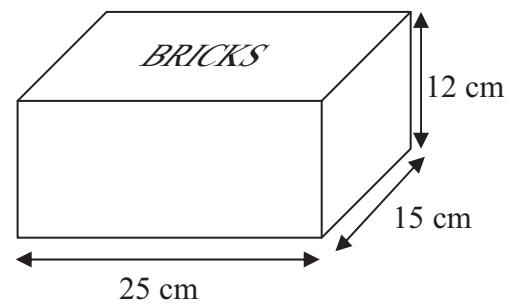
***10** A company makes building bricks for children.
The bricks are all 5 cm cubes.

The bricks are going to be packed in boxes.

John designs a box for the bricks.
The box is a cuboid.

The size of the box is 25 cm by 15 cm by 12 cm.

Will the box be big enough for 36 bricks?
You must give reasons for your answer.



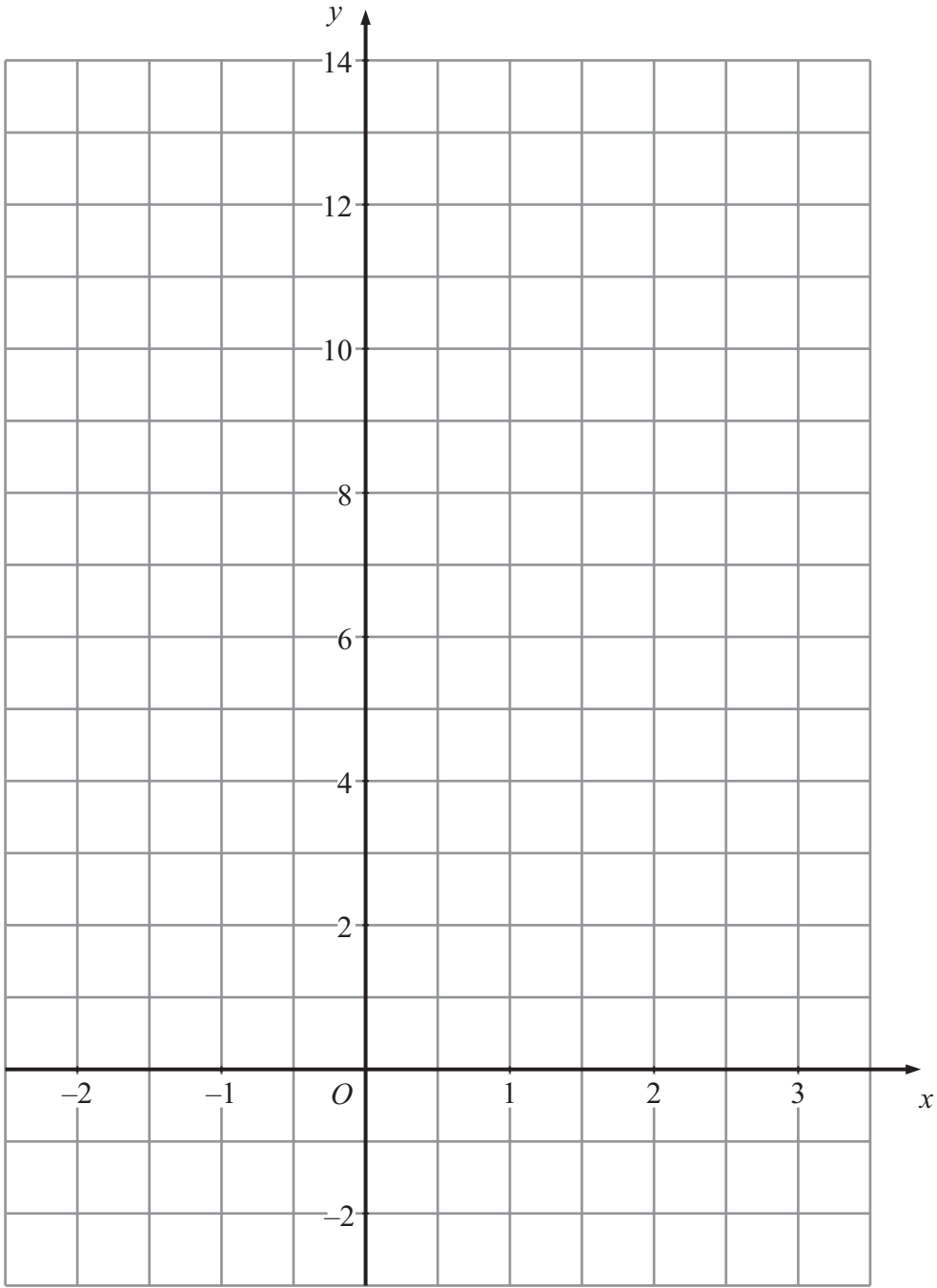
(Total for Question 10 is 4 marks)

11 (a) Complete the table of values for $y = 3x + 4$

x	-2	-1	0	1	2	3
y		1				13

(2)

(b) On the grid, draw the graph of $y = 3x + 4$



(2)

(Total for Question 11 is 4 marks)

Turn over ►

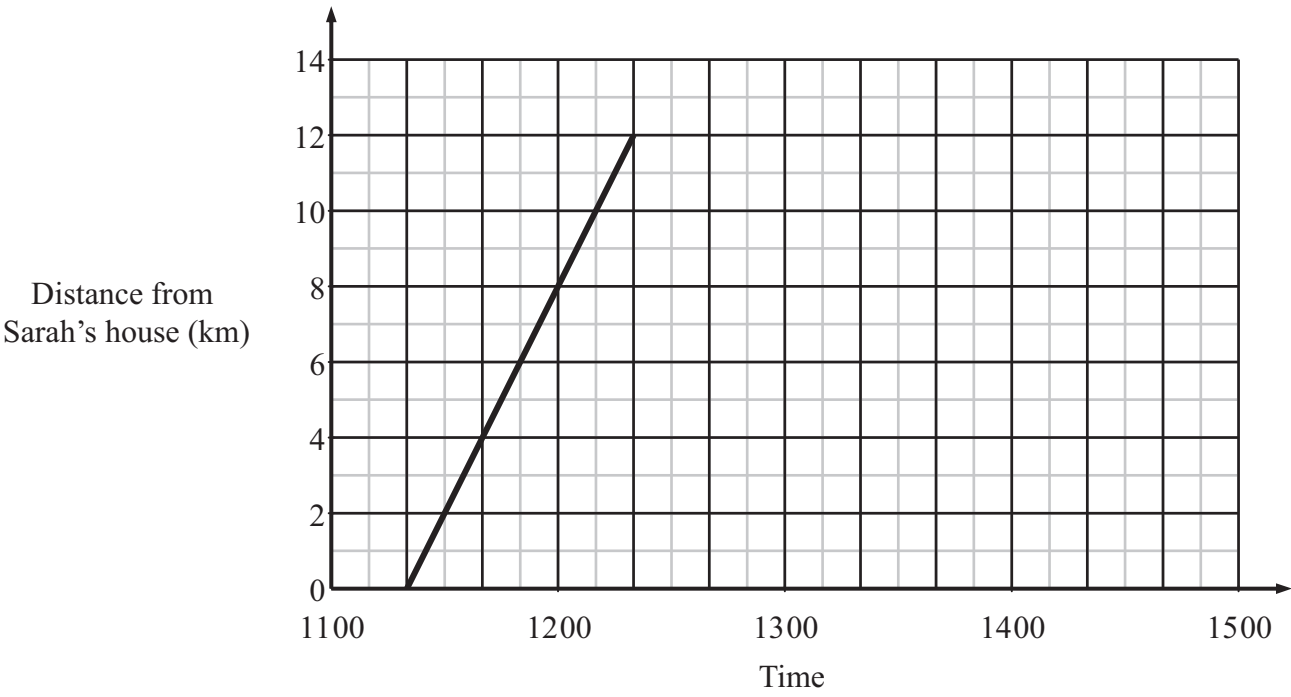
12 Sarah goes to the gym on her way to work.
The table shows what she wants to do before arriving at work.

Activity	Time (mins)
Drive from home to gym	10
Exercise at gym	45
Shower and change	20
Drive from gym to work	25

She has to arrive at work at 08 50

(a) What is the latest time she can leave home?

Each Saturday, Sarah cycles from her house to the gym.
The travel graph shows Sarah’s journey to the gym.



(b) What time does she leave home?

.....
(1)

(c) How far is the gym from Sarah’s house?

..... km
(1)

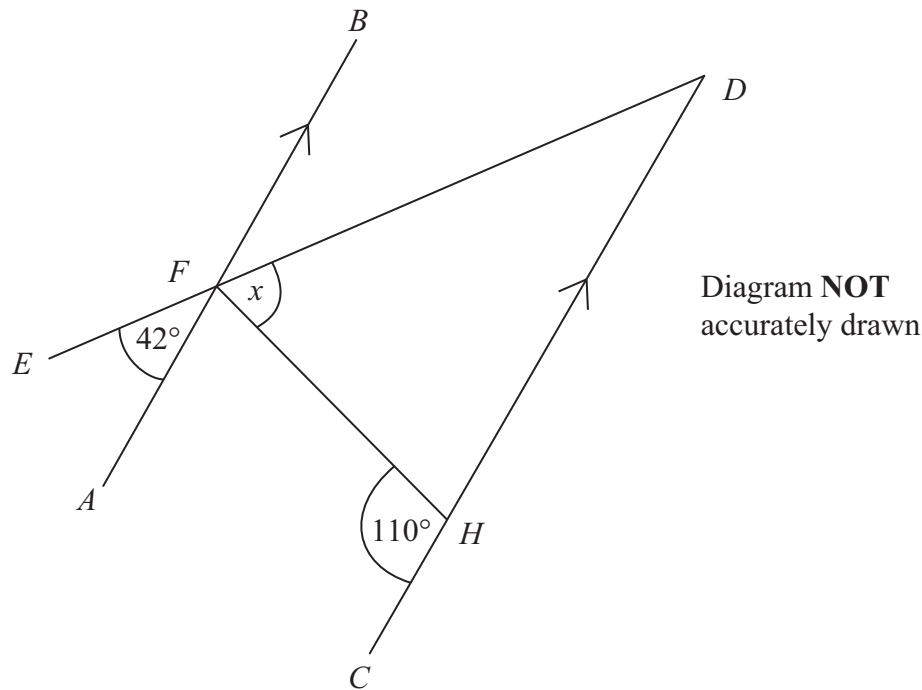
Sarah stays at the gym for $1\frac{1}{2}$ hours.
She then cycles back to her house at 18 km/h.
(d) Complete the travel graph.

(3)

(Total for Question 12 is 8 marks)

Turn over ►

13



AFB and *CHD* are parallel lines.
EFD is a straight line.
Work out the size of the angle marked *x*.

$x = \dots\dots\dots^\circ$

(Total for Question 13 is 3 marks)

14 (a) Simplify $m + m + m + m + m + m$

$\dots\dots\dots$
(1)

(b) Simplify $x^7 \times x^5$

$\dots\dots\dots$
(1)

(c) Factorise $3y^2 + 2y$

$\dots\dots\dots$
(1)

(Total for Question 14 is 3 marks)

15 Last year, Jora spent

- 30% of his salary on rent
- $\frac{2}{5}$ of his salary on entertainment
- $\frac{1}{4}$ of his salary on living expenses.

He saved the rest of his salary.
Jora spent £3600 on living expenses.
Work out how much money he saved.

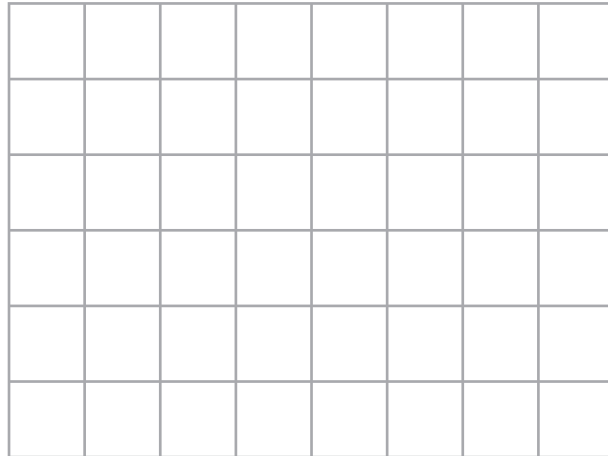
£

(Total for Question 15 is 5 marks)

TOTAL FOR PAPER IS 60 MARKS

mock papers 2-foundation

- 1 (a) On the grid, draw a kite.



(1)

- (b) Here is a quadrilateral.



Write down the special name of this quadrilateral.

.....
(1)

(Total for Question 1 is 2 marks)

2 (a) Work out $90 \div 10$

.....
(1)

(b) Write these numbers in order of size.
Start with the smallest number.

2.8 4.71 0.6 13.4

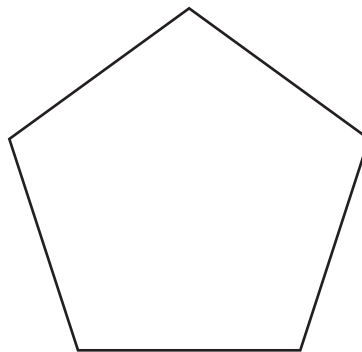
.....
(1)

(c) Write $\frac{7}{10}$ as a decimal.

.....
(1)

(Total for Question 2 is 3 marks)

3 Here is a regular pentagon.



(a) What is the order of rotational symmetry of this pentagon?

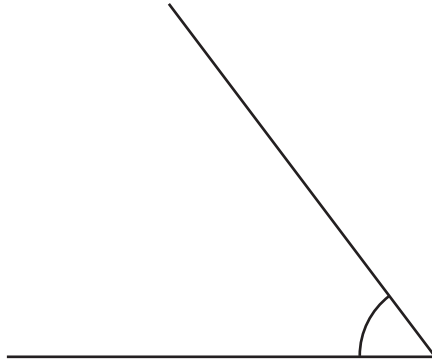
.....
(1)

(b) Draw a line of symmetry on this pentagon.

(1)

(Total for Question 3 is 2 marks)

4 (i) What type of angle is this?



(ii) Measure the size of the angle.

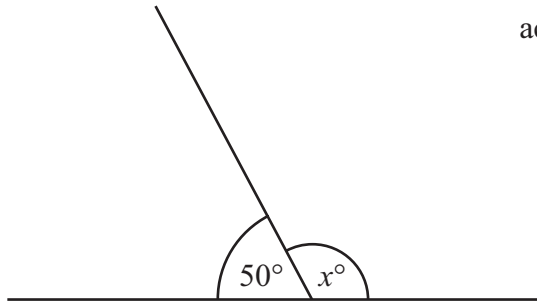
.....

.....
.....

(Total for Question 4 is 2 marks)

5

Diagram **NOT**
accurately drawn



(i) Work out the value of x .

$x =$

(ii) Give a reason for your answer.

.....
.....

(Total for Question 5 is 2 marks)

6 (a) Simplify $c + c + c$

.....
(1)

(b) Simplify $4x + 5y - 2x + y$

.....
(2)

(Total for Question 6 is 3 marks)

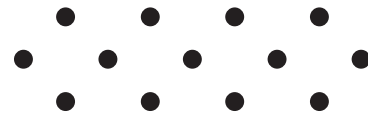
7 Here are some patterns made from dots.



Pattern number 1



Pattern number 2



Pattern number 3

(a) Draw Pattern number 4 in the space below.

(1)

(b) How many dots are needed for Pattern number 15?

.....
(2)

(Total for Question 7 is 3 marks)

***8** Yusuf is planning a disco party at his Youth Club.
Here are his costs.

Mobile Disco	£230
Hire of room	£150
Other costs	£30
Food	£12 per person

Yusuf charges £16 per ticket.
He sells 100 tickets.

Is there enough money from the ticket sales for Yusuf to pay all his costs?
You must show your working.

(Total for Question 8 is 4 marks)

- 9 The table shows the highest temperature and the lowest temperature in London and in Oslo on the same day.

	Highest	Lowest
London	8°C	-7°C
Oslo	-4°C	-9°C

- (a) Work out the difference between the **lowest** temperature in London and the **lowest** temperature in Oslo.

..... °C
(1)

- (b) Work out the difference between the **highest** temperature in London and the **lowest** temperature in London.

..... °C
(1)

(Total for Question 9 is 2 marks)

- 10 (a) Work out $\frac{1}{2} \times \frac{1}{5}$

.....
(1)

- (b) Work out $\frac{1}{2} + \frac{3}{8}$

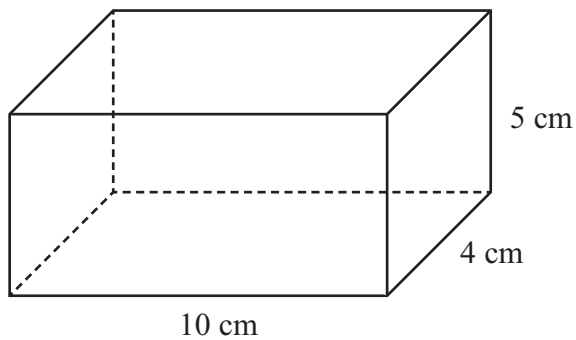
Give your answer in its simplest form.

.....
(2)

(Total for Question 10 is 3 marks)

11 Here is a diagram of a cuboid.

Diagram **NOT**
accurately drawn



(a) Write down the number of edges of the cuboid.

.....
(1)

(b) Calculate the volume of the cuboid.

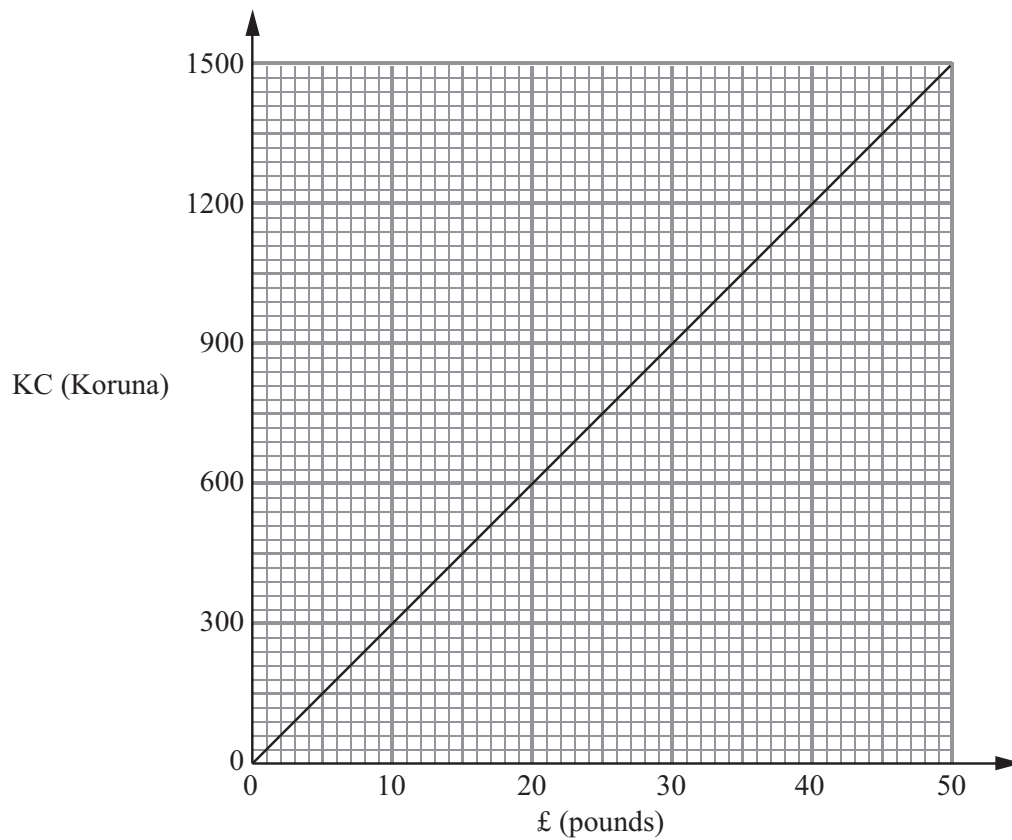
.....
(3)

(Total for Question 11 is 4 marks)

***12** Barbara goes on holiday to Prague. The currency in Prague is the Koruna (KC).

This graph can be used to convert between £ (pounds) and KC (Koruna).

The exchange rate is £1 = 30 KC.



Barbara bought some things in London.

She saw the same things on sale in Prague.

The table shows the cost in £ (pounds) and the cost in KC (Koruna).

Item	Cost in London £ (pounds)	Cost in Prague KC (Koruna)
Headphones	£15	450 KC
Suitcase	£34	750 KC
Music player	£26	810 KC

Barbara thinks the total cost of these things was more in London than in Prague.

Is she correct?

Give a reason for your answer.

You must show all your working.

(Total for Question 12 is 5 marks)

***13** Comp Parts and Z Parts both sell memory sticks.

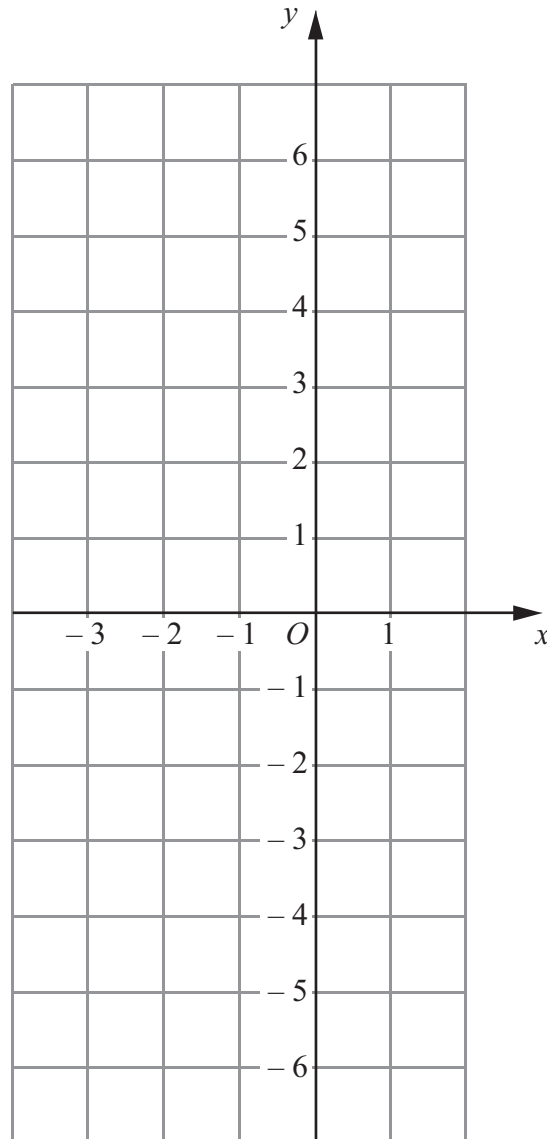
Comp Parts	Z Parts
Memory sticks £4 each	Memory sticks
	
1 free stick for every 10 sticks bought	£35 for a box of 10 sticks

There are 150 students in Year 10 in a school.
A teacher needs to buy a memory stick for each student.

At which of the shops should he buy the memory sticks?
You must show all your working.

(Total for Question 13 is 5 marks)

14 On the grid, draw the graph of $y = 2x + 3$ for values of x from $x = -3$ to $x = 1$



(Total for Question 14 is 3 marks)

15 Work out 342×24

.....
(Total for Question 15 is 3 marks)

16 Here are the first four terms of an arithmetic sequence.

5 9 13 17

(a) What is the next term of this sequence?

.....
(1)

(b) Write down an expression, in terms of n , for the n th term of the sequence.

.....
(2)

(Total for Question 16 is 3 marks)

17 Ali, Ben and Candice share £300 in the ratio 2 : 3 : 5

How much money does Candice get?

£

(Total for Question 17 is 2 marks)

- 18** Veena bought some food for a barbecue.
She is going to make some hot dogs.
She needs a bread roll and a sausage for each hot dog.

There are 40 bread rolls in a pack.
There are 24 sausages in a pack.

Veena bought exactly the same number of bread rolls and sausages.

- (i) How many packs of bread rolls and packs of sausages did she buy?

..... packs of bread rolls

..... packs of sausages.

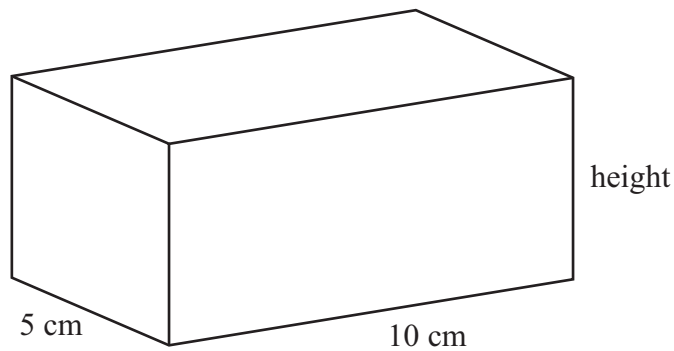
- (ii) How many hot dogs can she make?

..... hot dogs

(Total for Question 18 is 5 marks)

19 Here is a solid cuboid.

Diagram **NOT**
accurately drawn



The cuboid has a width of 5 cm and a length of 10 cm.
The cuboid has a total surface area of 280 cm^2 .

Work out the height of the cuboid.

..... cm

(Total for Question 19 is 4 marks)

TOTAL FOR PAPER IS 60 MARKS



mock papers 3-higher

- 1 Grace and Jack share £140 in the ratio 3 : 4
Work out the amount of money that Jack gets.

£

(Total for Question 1 is 2 marks)

- 2 (a) Simplify $4b \times 2c$

.....
(1)

- (b) Expand $3(2w - 5t)$

.....
(2)

- (c) Expand and simplify $(x + 7)(x - 2)$

.....
(2)

(Total for Question 2 is 5 marks)

Turn over ►



3 Work out 15% of £80

£

(Total for Question 3 is 2 marks)

4

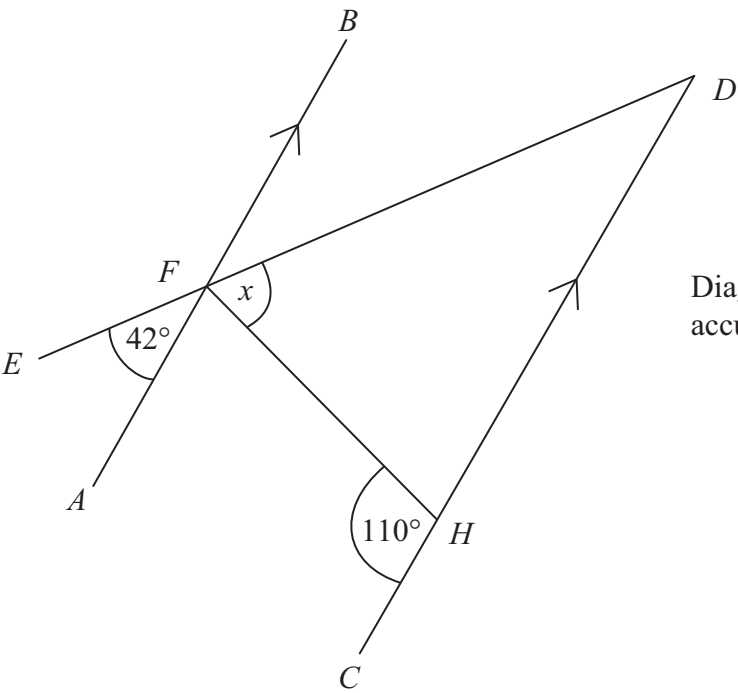


Diagram **NOT**
accurately drawn

AFB and *CHD* are parallel lines.
EFD is a straight line.

Work out the size of the angle marked *x*.

x =^o

(Total for Question 4 is 3 marks)

5 Find the Lowest Common Multiple (LCM) of 8 and 12

(Total for Question 5 is 2 marks)

6 The diagram shows 3 sides of a regular polygon.

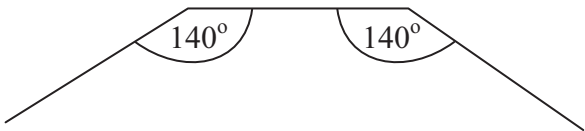


Diagram **NOT**
accurately drawn

Each interior angle of the regular polygon is 140° .
Work out the number of sides of the regular polygon.

(Total for Question 6 is 3 marks)

Turn over ►

7 You can use this formula to change a temperature C , in $^{\circ}\text{C}$, to a temperature F , in $^{\circ}\text{F}$.

$$F = 1.8C + 32$$

(a) Use the formula to change 20°C into $^{\circ}\text{F}$.

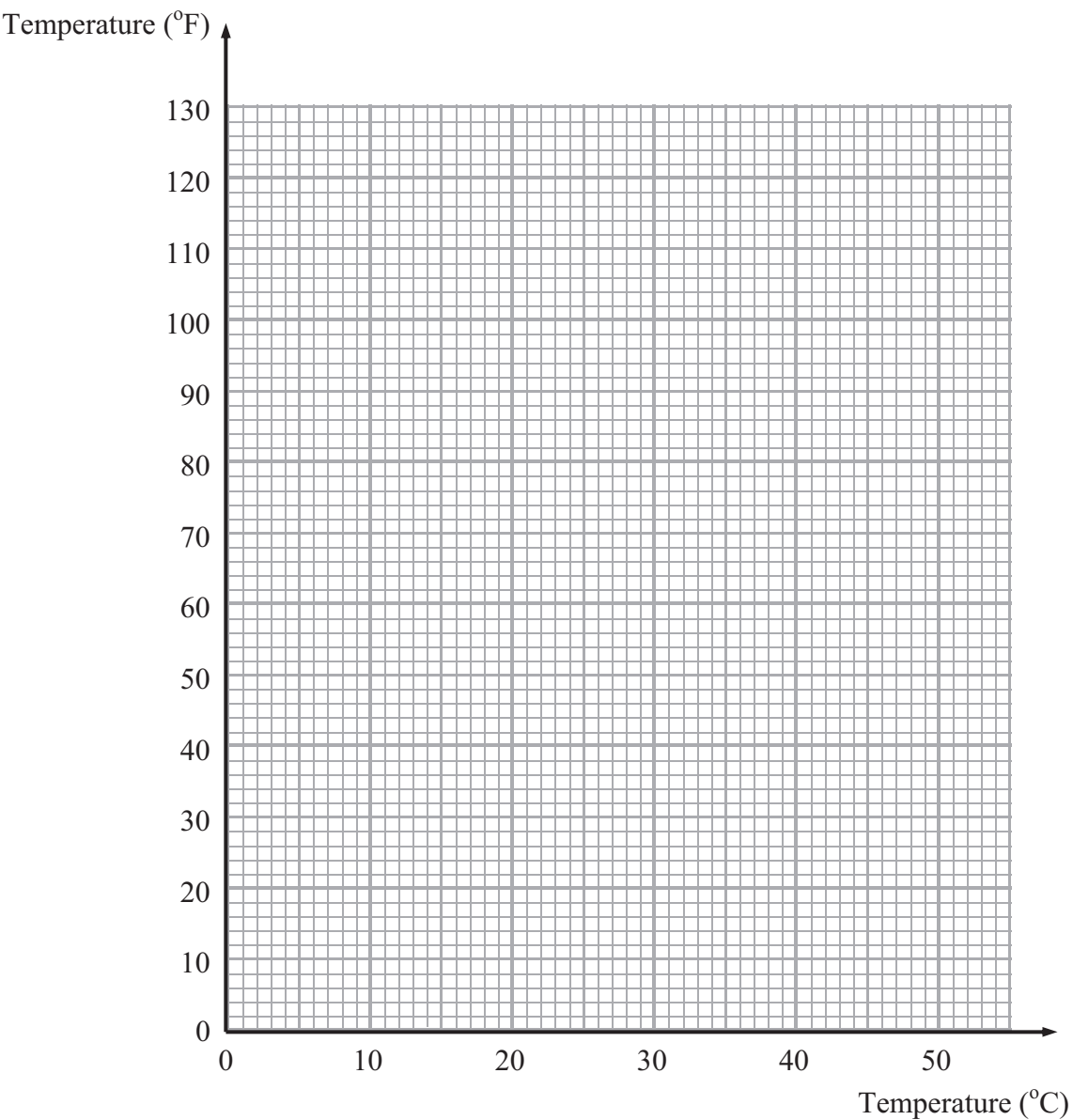
..... $^{\circ}\text{F}$
(2)

(b) On the grid opposite, draw a conversion graph that can be used to change between temperatures in $^{\circ}\text{C}$ and temperatures in $^{\circ}\text{F}$.

(3)

(c) Use your graph to change 100°F into $^{\circ}\text{C}$.

..... $^{\circ}\text{C}$
(1)

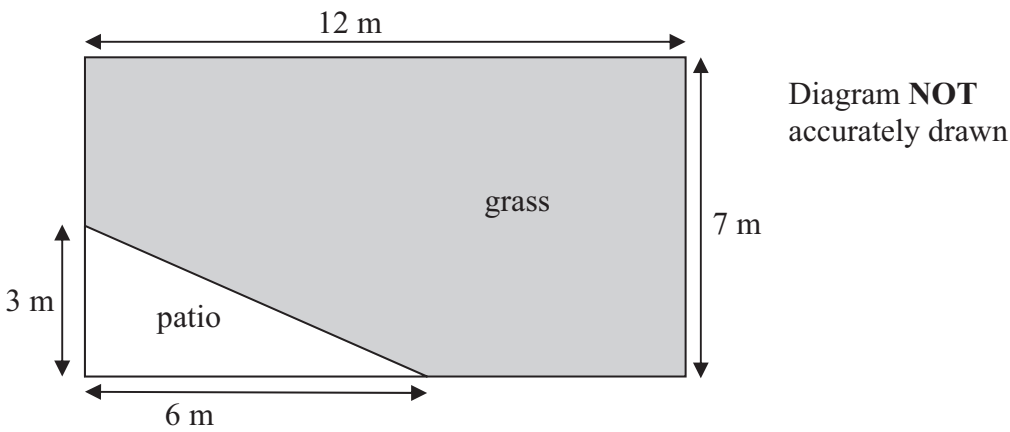


(Total for Question 7 is 6 marks)



Turn over ►

- 8 Mrs Kunal’s garden is in the shape of a rectangle.
Part of the garden is a patio in the shape of a triangle.
The rest of the garden is grass.



Mrs Kunal wants to spread fertiliser over all her grass.

One box of fertiliser is enough for 32 m² of grass.

How many boxes of fertiliser will she need?

You must show your working.

(Total for Question 8 is 4 marks)

9 Last year, Jora spent

- 30% of his salary on rent
- $\frac{2}{5}$ of his salary on entertainment
- $\frac{1}{4}$ of his salary on living expenses.

He saved the rest of his salary.
Jora spent £3600 on living expenses.
Work out how much money he saved.

£

(Total for Question 9 is 5 marks)

Turn over ►

10 (a) Factorise fully $20w^2y + 24wy^3$

.....
(2)

(b) Factorise $m^2 + 3m - 40$

.....
(2)

(Total for Question 10 is 4 marks)



11 A water trough is in the shape of a prism.

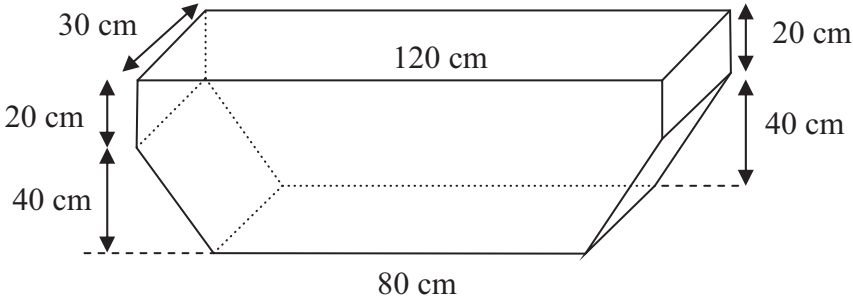


Diagram **NOT**
accurately drawn

Hamish fills the trough completely.

Water leaks from the bottom of the trough at a constant rate.

2 hours later, the level of the water has fallen by 20 cm.

Water continues to leak from the trough at the same rate.

How many more minutes will it take for the trough to empty completely?

..... minutes

(Total for Question 11 is 6 marks)



Turn over ►

12 (a) Simplify m^0

.....
(1)

(b) Simplify $(2x^6y^{-1})^3$

.....
(2)

(Total for Question 12 is 3 marks)

13 Work out $(2.5 \times 10^9) \div (5 \times 10^3)$.
Give your answer in standard form.

.....
(Total for Question 13 is 2 marks)

*14 The diagram shows a pentagon.

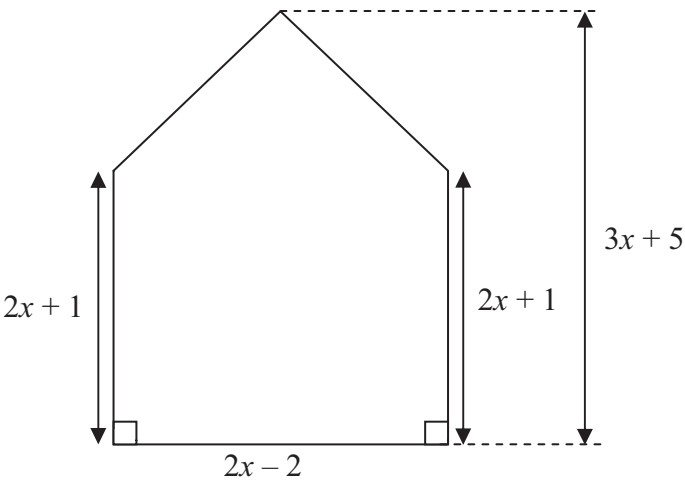


Diagram **NOT** accurately drawn

All measurements are in centimetres.
Show that the area of this pentagon can be written as $5x^2 + x - 6$

(Total for Question 14 is 4 marks)

Turn over ►

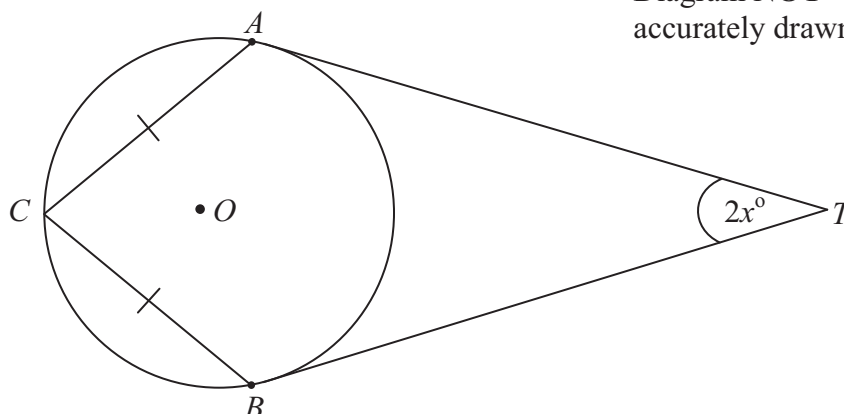
15 Write as a single fraction in its simplest form

$$\frac{2x}{x-1} - \frac{7x-3}{x^2-1}$$

.....
(Total for Question 15 is 4 marks)

*16

Diagram **NOT**
accurately drawn



A , B and C are points on the circumference of the circle, centre O .

TA and TB are tangents to the circle.

$CA = CB$.

Angle $ATB = 2x^\circ$.

Prove that angle $ACB = (90 - x)^\circ$.

(Total for Question 16 is 5 marks)

TOTAL FOR PAPER IS 60 MARKS

mock papers 4-higher

1 Here are the first four terms of an arithmetic sequence.

5 9 13 17

(a) What is the next term of this sequence?

.....
(1)

(b) Write down an expression, in terms of n , for the n th term of the sequence.

.....
(2)

(Total for Question 1 is 3 marks)

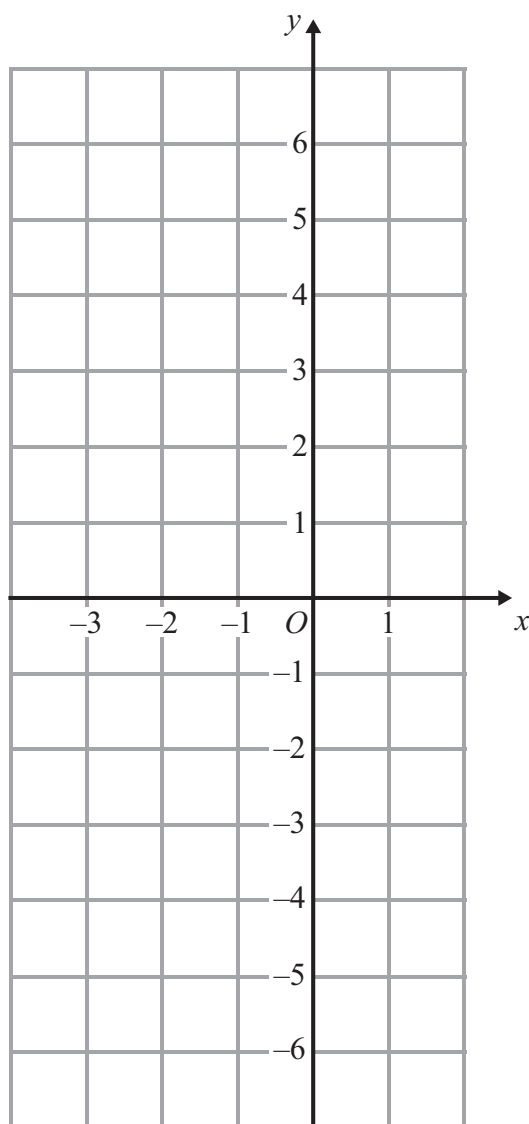
2 Ali, Ben and Candice share £300 in the ratio 2 : 3 : 5

How much money does Candice get?

£

(Total for Question 2 is 2 marks)

- 3 On the grid, draw the graph of $y = 2x + 3$ for values of x from $x = -3$ to $x = 1$



(Total for Question 3 is 3 marks)

- 4 Veena bought some food for a barbecue.
She is going to make some hot dogs.
She needs a bread roll and a sausage for each hot dog.

There are 40 bread rolls in a pack.
There are 24 sausages in a pack.

Veena bought exactly the same number of bread rolls and sausages.

- (i) How many packs of bread rolls and packs of sausages did she buy?

..... packs of bread rolls

..... packs of sausages

- (ii) How many hot dogs can she make?

..... hot dogs

(Total for Question 4 is 5 marks)

5

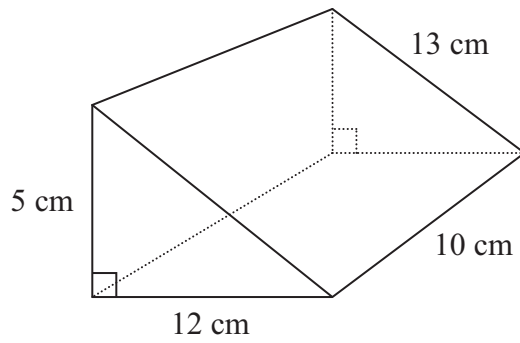


Diagram **NOT**
accurately drawn.

Work out the total surface area of this triangular prism.

.....
(Total for Question 5 is 4 marks)

6 The interior angle of a regular polygon is 160° .

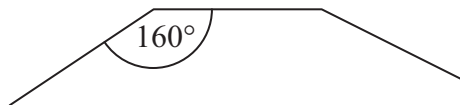


Diagram **NOT**
accurately drawn.

(i) Write down the size of an exterior angle of the polygon.

(ii) Work out the number of sides of the polygon.

.....
(Total for Question 6 is 3 marks)

- 7 A piece of card is in the shape of a trapezium.

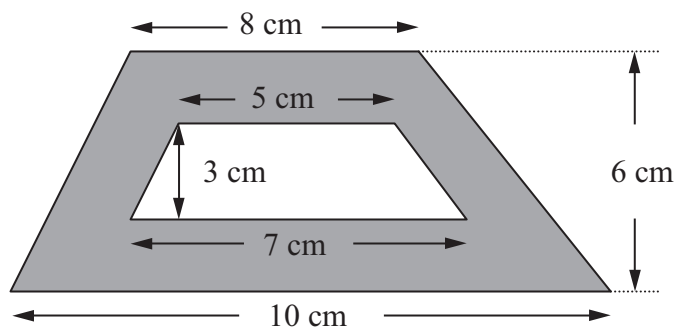


Diagram **NOT**
accurately drawn.

A hole is cut in the card.
The hole is in the shape of a trapezium.
Work out the area of the shaded region.

..... cm²

(Total for Question 7 is 3 marks)

- 8 The table shows the costs, per person, of a holiday at two different hotels. It shows the cost for 5 nights and the cost for each extra night. It also shows the discount for each child.

	Park Palace		Dubai Grand	
Date holiday starts	5 nights	extra night	5 nights	extra night
01 Jan – 31 Mar	£1169	£150	£849	£86
01 Apr – 09 Apr	£1229	£150	£1219	£95
10 Apr – 15 Jul	£810	£80	£853	£53
16 Jul – 20 Aug	£810	£80	£854	£53
21 Aug – 10 Dec	£810	£80	£869	£94
Discount for each child	$\frac{1}{5}$ off		15% off	

There are two adults and two children in the Smith family.
The family want a holiday for 7 nights, starting on 1st August.

One hotel will be cheaper for them than the other hotel.

Work out the cost of the cheaper holiday.
You must show all your working.

£

(Total for Question 8 is 6 marks)

- 9 A plane takes 30 seconds to fly a distance of 8 kilometres.

Work out the average speed of the plane, in miles per hour.

..... miles per hour

(Total for Question 9 is 3 marks)

- 10 AB is a line segment.

A is the point $(2, 5, 6)$.

The midpoint of the line AB has coordinates $(-1, -4, 2)$.

Find the coordinates of point B .

(.....,,)

(Total for Question 10 is 2 marks)

11 (a) Expand $3(x + 2)$

.....
(2)

(b) Factorise completely $12x^3y - 18xy^2$

.....
(2)

(c) Expand and simplify $(2x - 3)(x + 4)$

.....
(2)

(d) Simplify $5x^4y^3 \times 2x^3y^2$

.....
(2)

(Total for Question 11 is 8 marks)

12 Write down the value of

(i) 7^0

.....

(ii) 5^{-1}

.....

(iii) $9^{\frac{1}{2}}$

.....

(Total for Question 12 is 3 marks)

13 (a) Write down the equation of a straight line that is parallel to $y = 5x + 6$

.....

(1)

(b) Find an equation of the line that is perpendicular to the line $y = 5x + 6$ and passes through the point $(-2, 5)$.

.....

(3)

(Total for Question 13 is 4 marks)

14 Simplify fully $\frac{x^2 - 2x - 15}{x^2 - 4x - 21}$

.....
(Total for Question 14 is 3 marks)

15

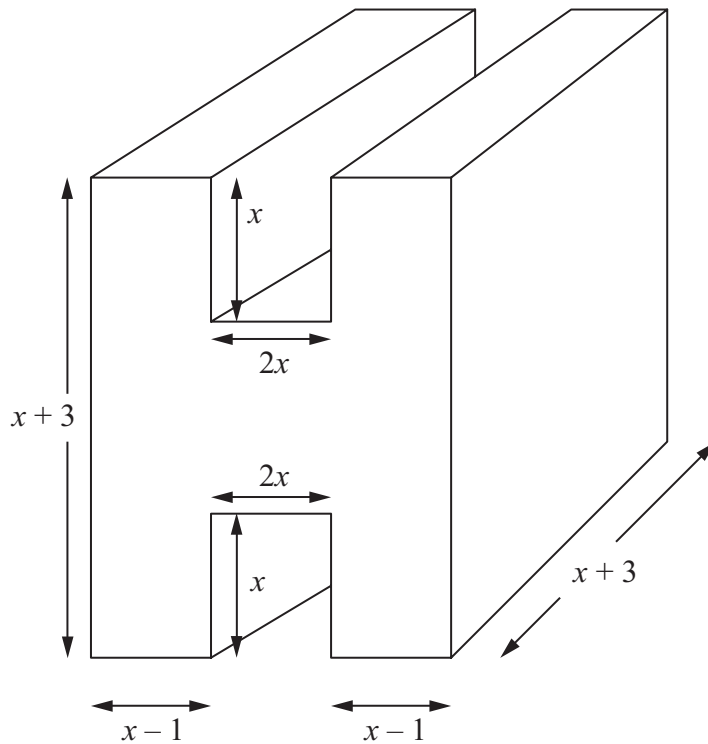


Diagram **NOT**
accurately drawn.

The diagram shows a prism.
All measurements are in cm.
All corners are right angles.
The volume of the prism is $V \text{ cm}^3$.

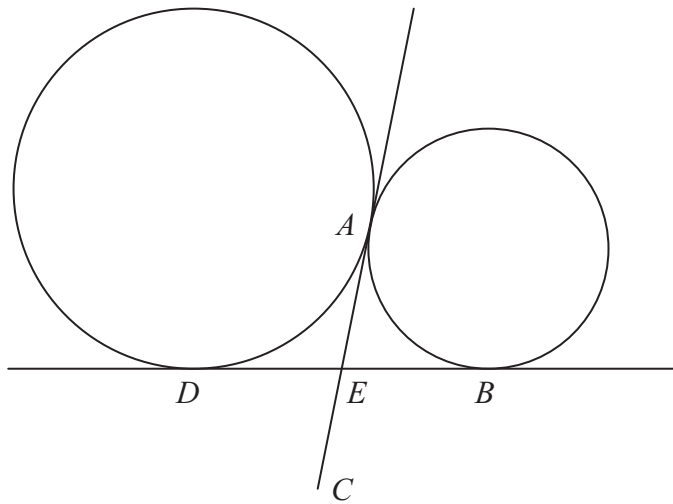
Find a formula for V .

$V = \dots\dots\dots$

(Total for Question 15 is 4 marks)

*16

Diagram **NOT**
accurately drawn.



A and D are two points on the circumference of a circle.
 A and B are two points on the circumference of a smaller circle.
 DB and AC are tangents to both circles.
 E is the intersection of DB and AC .
 E is the midpoint of AC .

Prove that $ABCD$ is a rectangle.

(Total for Question 16 is 4 marks)

TOTAL FOR PAPER IS 60 MARKS

mock papers 5-foundation

- 1 (a) Write the following numbers in order of size.
Start with the smallest number.

5 17 2 25 8

(1)

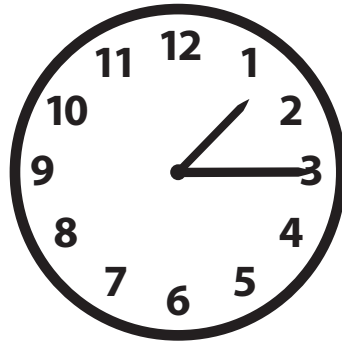
- (b) Write the following numbers in order of size.
Start with the smallest number.

-3 0 6 -10 -7

(1)

(Total for Question 1 is 2 marks)

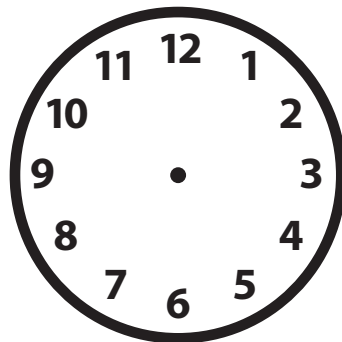
2



(a) What time does the clock show?

.....
(1)

(b) On the clock below, show the time half past two.



(1)

Claire leaves home at 3.30pm.
She arrives at the station at 4.20pm.

(c) How long did her journey from home to the station take?

..... minutes
(2)

(Total for Question 2 is 4 marks)

3 The table shows some temperatures at midnight in Canada.

Town	Temperature at midnight
Banff	2°C
Norquay	−4°C
Revelstoke	−6°C
Calgary	5°C

(a) What is the difference in temperatures

(i) between Norquay and Revelstoke,

..... °C

(ii) between Calgary and Revelstoke?

..... °C

(2)

In Revelstoke, the temperature drops by 11°C from midnight to 6am.

(b) What is the temperature in Revelstoke at 6am?

..... °C

(1)

(Total for Question 3 is 3 marks)

4 (a) Simplify $d + d + d + d$

.....
(1)

(b) Simplify $3f + 4 - 2f + 6$

.....
(2)

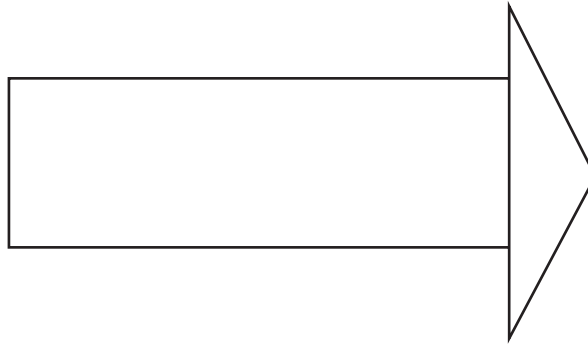
(Total for Question 4 is 3 marks)

5 Draw accurately a circle of radius 5 cm.
Use the cross (×) as the centre of your circle.

×

(Total for Question 5 is 2 marks)

- 6 The shape below is made from a rectangle and a triangle.



- (a) Mark with arrows ($>>$) a pair of parallel lines.

(1)

- (b) Mark with the letter A an acute angle.

(1)

(Total for Question 6 is 2 marks)

- 7 A ticket for a football match costs £38
Ahmed has £120
He buys as many tickets as possible.

- (a) How many tickets does he buy?

.....
(2)

- (b) How much money has he got left?

£
(1)

(Total for Question 7 is 3 marks)

8 Here is a list of numbers.

2 3 10 12 15 16 24

From the list write down

(a) an odd number

.....
(1)

(b) a multiple of 6

.....
(1)

(c) a factor of 18

.....
(1)

(Total for Question 8 is 3 marks)

9 (a) Write $\frac{1}{4}$ as a decimal.

.....
(1)

(b) Write 0.8 as a percentage.

..... %
(1)

(c) Write the ratio 2 : 6 in its simplest form.

.....
(1)

(Total for Question 9 is 3 marks)

10 (a)

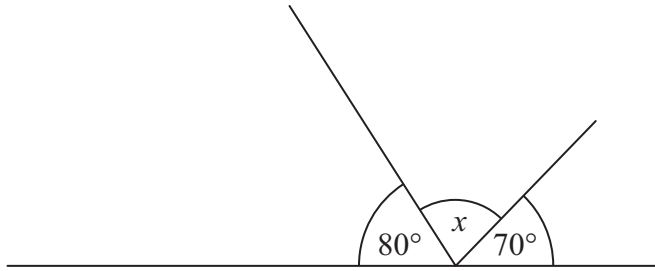


Diagram **NOT**
accurately drawn

Work out the size of the angle marked x .

○

(2)

(b)

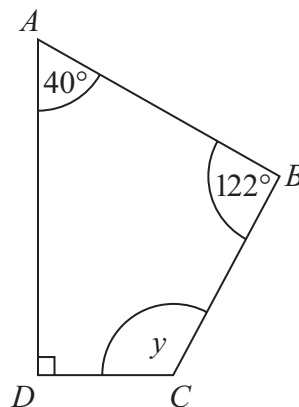


Diagram **NOT**
accurately drawn

$ABCD$ is a quadrilateral.

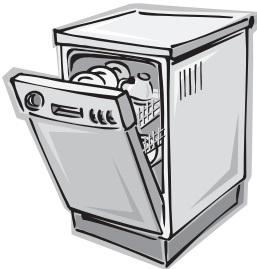
Work out the size of the angle marked y .

○

(2)

(Total for Question 10 is 4 marks)

11 Here is a bill for a dishwasher repair.
Complete the bill.



Dishwasher Repair

Description	Number	Cost of each item	Total
Filter	1	£28.95	£28.95
Basket wheel	8	£1.50	£
Spray arm	2	£	£20.90
Labour charge $1\frac{1}{2}$ hours at £18.00 an hour			£
Total cost			£

(Total for Question 11 is 4 marks)

- 12** Fran is decorating her bedroom.
She is going to put a border all around the bedroom.

This diagram shows a plan of the bedroom.

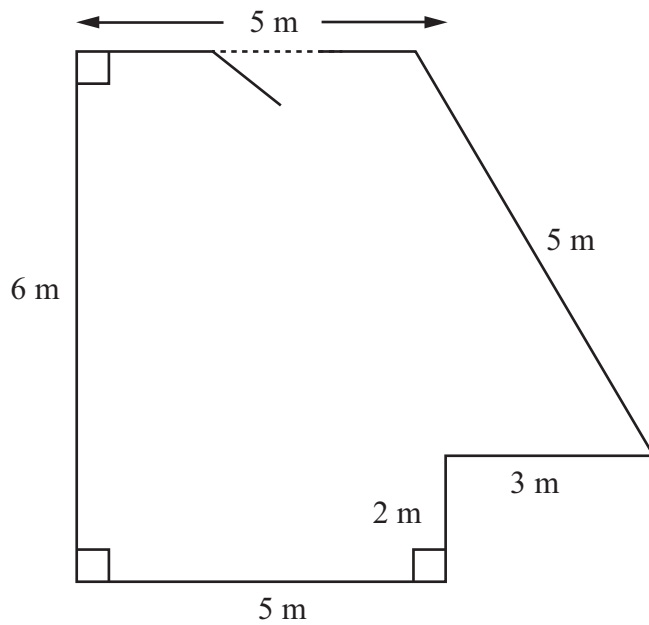


Diagram **NOT**
accurately drawn

Border rolls are sold in 4 m lengths.
Work out the number of border rolls Fran will need to buy.

(Total for Question 12 is 4 marks)

13 (a) Write down the value of 7^2

.....
(1)

(b) Write down the value of $\sqrt{25}$

.....
(1)

(c) Write down the value of 2^3

.....
(1)

(Total for Question 13 is 3 marks)

14 Here are the first four terms of a number sequence.

4 7 10 13

(a) (i) What is the next term in the sequence?

(ii) Explain how you found your answer.

.....
(2)

(b) What is the 8th term in the sequence?

.....
(1)

Alexi says 34 is in the sequence.

(c) Is Alexi correct?

You must give a reason for your answer.

.....
(1)

(Total for Question 14 is 4 marks)

***15** The diagram shows the plan of the floor of Mrs Phillips' living room.

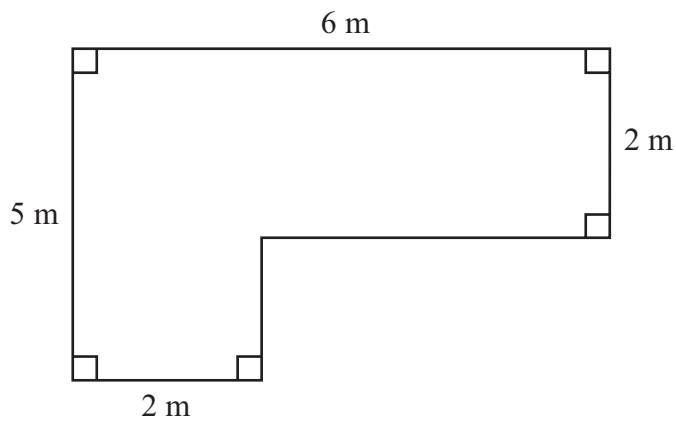


Diagram **NOT**
accurately drawn

Mrs Phillips is going to cover the floor with floor boards.
One pack of floor boards will cover 2.5 m^2 .

How many packs of floor boards does she need?
You must show your working.

(Total for Question 15 is 4 marks)

16 Buses to Exeter leave a bus station every 20 minutes.

Buses to Plymouth leave the bus station every 16 minutes.

A bus to Exeter and a bus to Plymouth both leave the bus station at 8am.

When will buses to Exeter and Plymouth next leave the bus station at the same time?

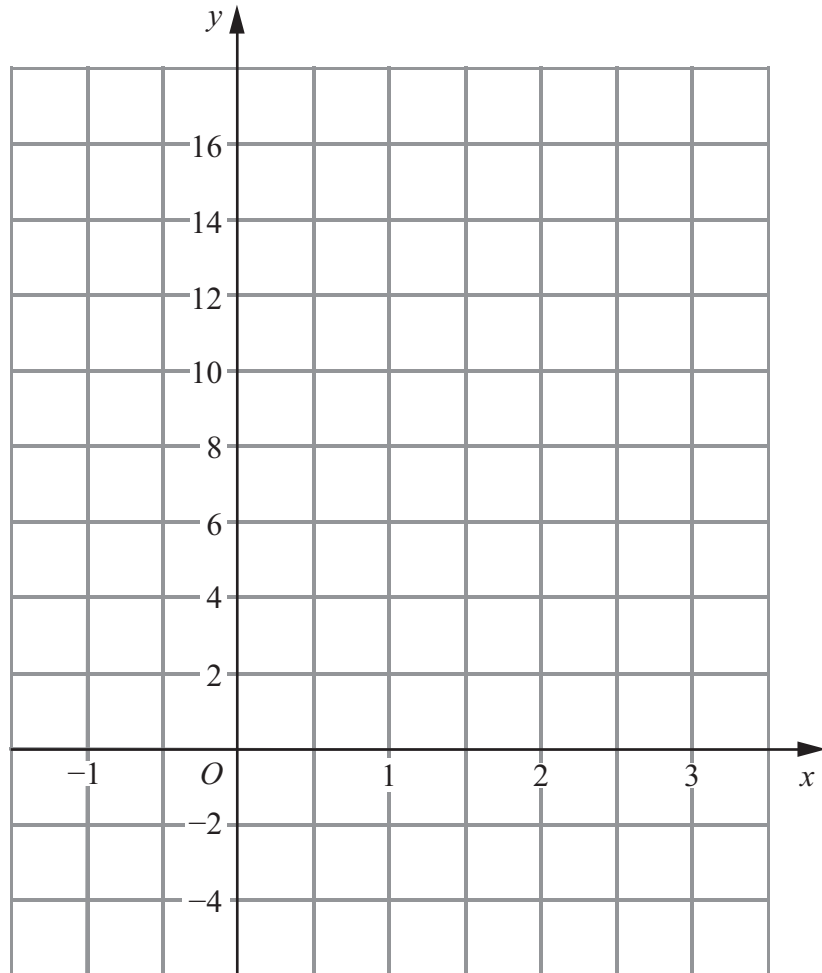
.....
(Total for Question 16 is 3 marks)

17 Given $x = 4$

Work out the value of $2x^2 + 7$

.....
(Total for Question 17 is 2 marks)

18 On the grid, draw the graph of $y = 4x + 2$ from $x = -1$ to $x = 3$



(Total for Question 18 is 3 marks)

***19** Mr Smith drives 24 miles to work.

On Monday his journey to work takes 30 minutes.

On Tuesday the average speed of his journey to work is 56 km/h.

Did Mr Smith drive more quickly to work on Monday or Tuesday?

You must show all your working.

(Total for Question 19 is 4 marks)

TOTAL FOR PAPER IS 60 MARKS