

# Summer 2025

## AQA Foundation



## Between Papers Practice (Paper 2 & 3)



This resource has been designed to support GCSE revision. The questions are from our Question Generators on [drfrost.org](https://drfrost.org).

This resource has been designed to aid with revision for the Summer 2025 exams, considering topics which commonly appear on the calculator papers and those which have already been examined in Paper 1. There is **no guarantee** that any topics assessed in Paper 1 will not appear again.

Hence, **this should not be considered as a predicted paper** and should not be relied upon for total preparation for Paper 2 or 3.

### Teachers

With a Dr Frost subscription, this selection of questions can be found as a worksheet [here](#) or by using the QR code.

From this page you can set this as an online task/homework or create a shadow paper for further practice.

All exam practice resources for multiple exam boards in summer 2025 can be found [here](#).



### Students

With a free Dr Frost account, you can complete this selection of questions online using the QR code & clicking 'Practice this Worksheet'.

The system will mark these automatically for you as you go and provide model solutions.

## Question 1

Diego is travelling to Shanghai to visit family.

His train leaves at 12 35 pm and arrives in Shanghai at 3 09 pm.

Work out how long Diego spent travelling.

Give your answer in hours and minutes.

..... hours

..... minutes

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## Question 2

Heidi is watching a show that started at 1 23 pm.

The show lasts for 2 hours and 51 minutes.

Work out the time that the show finishes.

Give your answer in 12 hour clock.

..... : .....

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## Question 3

Sort these measurements into order.

68 cm , 990 mm , 6900 m

..... , ..... , .....

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## Question 4

A jug holds 500 ml of juice. After pouring out 0.4 litre, how much juice is left in the jug?

Give your answer in ml.

..... ml

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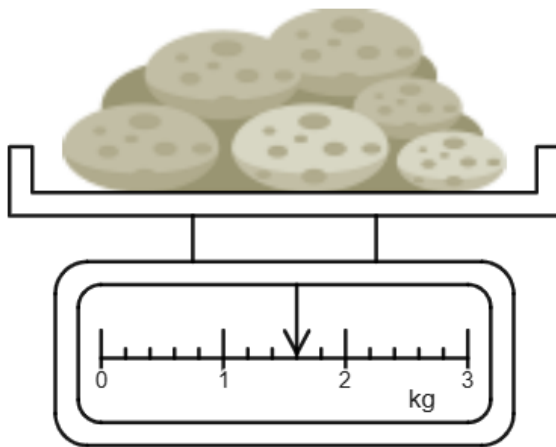
### Question 5

Convert 0.18 to a fraction in its simplest form.


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### Question 6

Write down the mass shown on the scales.



..... kg

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### Question 7

Convert  $\frac{3}{25}$  to a decimal.

.....

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### Question 8

Find the sum of  $\frac{3}{5}$  and 0.85

.....

---

### Question 9

Put the numbers below in in order of size, with the smallest at the top.

Order the following:  $148\%$  ,  $\frac{171}{100}$  ,  $1.72$  ,  $\frac{31}{20}$

..... / ..... / ..... / .....

---

### Question 10

Simplify

$$3y + 11y - 7y$$

.....

---

### Question 11

Simplify

$$-6y + 2y + 9x - 4x + 6y$$

.....

---

### Question 12

Simplify

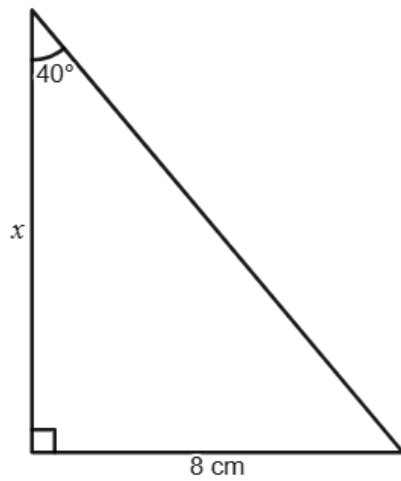
$$10p - 6x^4 + 2p + 5x^4$$

.....

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### Question 13

Determine the value of  $x$  in the diagram.



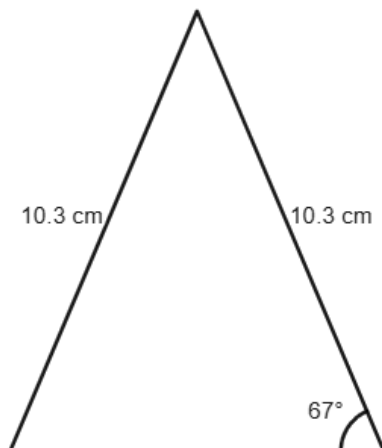
Give your answer correct to 1 decimal place.

$x = \dots\dots\dots\text{ cm}$

---

### Question 14

Work out the perimeter of the following isosceles triangle.



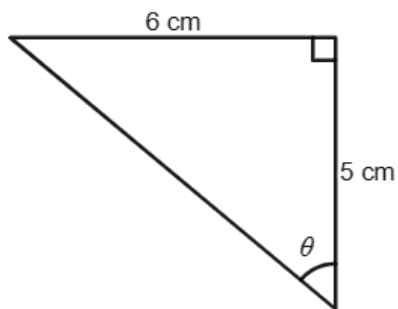
Give your answer correct to one decimal place.

$\dots\dots\dots\text{ cm}$

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### Question 15

Determine the value of  $\theta$ .



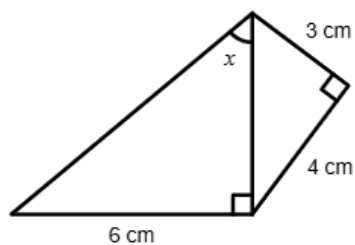
Give your answer correct to 1 decimal place where appropriate.

$$\theta = \text{.....}^\circ$$

---

### Question 16

Work out the value of  $x$ .



Give your answer correct to 1 decimal place.

$$x = \text{.....}^\circ$$

---

## Question 17

A train travels between Amsterdam and Lisbon.

The train covers the distance of 305 km in 4 hours and 10 minutes.

Work out the average speed of the train in km/h.

Give your answer correct to the nearest whole number.

..... km/h

---

## Question 18

Here is part of a timetable for the bus between Pelcomb Cross and Croesgoch.

Pelcomb Cross	09:18	10:28	11:26
Keeston Village	09:21	10:31	11:29
Simpson Cross	09:23	10:33	11:31
Roch	09:26	10:36	11:34
Newgale	09:30	10:40	11:38
Penycwm	09:33	10:43	11:41
Brawdy	09:35	10:45	11:43
Solva	09:41	10:51	11:49
St. Davids	09:55	11:05	12:03
Croesgoch	10:10	11:20	12:18

Dhruv gets on the bus at Pelcomb Cross at 09:18 and gets off again at St. Davids.

The average speed of the bus for Dhruv's journey is 24.2 mph.

Work out the distance between Pelcomb Cross and St. Davids.

Give your answer in miles correct to 1 decimal place.

..... miles

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## Question 19

Imene leaves her home at 01:58 in her car.

Imene drives 56 km from her home to get to the airport to pick up a friend.

She drives at an average speed of 42 km/h.

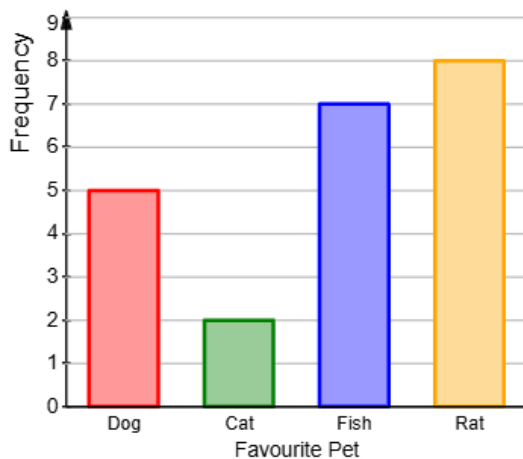
Work out the time that Imene gets to the airport.

.....

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## Question 20

Giulia records the favourite pets of her friends and represents the data in a bar chart.



Find the pet that is the most common favourite among the friends Giulia surveyed.

Dog [ ]

Cat [ ]

Fish [ ]

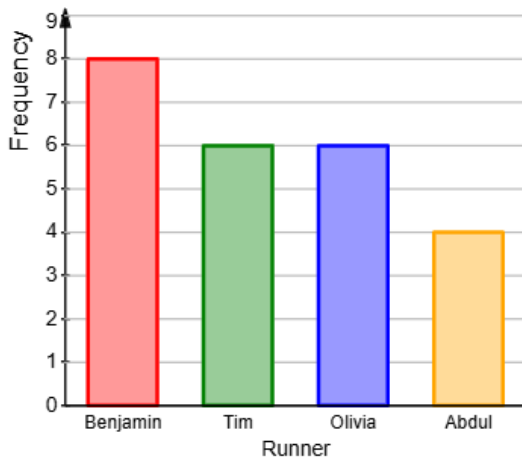
Rat [ ]



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## Question 21

Inaya records the number of identical sprints some runners complete and represents the data on a bar chart.



Given that the total distance run by Benjamin is 640 metres, find the distance for a single sprint.

..... metres

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## Question 22

In a school there are 56 girls and 50 boys.  
30 of the girls and 26 of the boys have school dinners.

Calculate the percentage of the pupils that have school dinners.  
Give your answer correct to 1 decimal place.

..... %

---

## Question 23

Expand

$$4p(5p + 4)$$

.....

---

### Question 24

Expand and simplify

$$2(5a - 3) - 3(a + 3)$$

.....

---

### Question 25

The  $n$ th term of a sequence is  $5n + 3$

Find the first four terms of the sequence.

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

---

### Question 26

Find the  $n$ th term of the sequence.

4, 11, 18, 25, ...

$n$ th term = .....

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### Question 27

Determine whether 102 is a term in a sequence that starts with:

10, 14, 18, 22 ...

102 is in the sequence [ ]

102 is not in the sequence [ ]

---

### Question 28

The ratio of boys to girls on the school council is 7 : 2

Work out the fraction of students that are boys.


---

### Question 29

There are 800 rhinos in a conservation area.  
Each rhino is either a white rhino or a black rhino.

The white rhinos and the black rhinos are in the ratio 3: 2.  
 $\frac{1}{4}$  of the white rhinos are male.

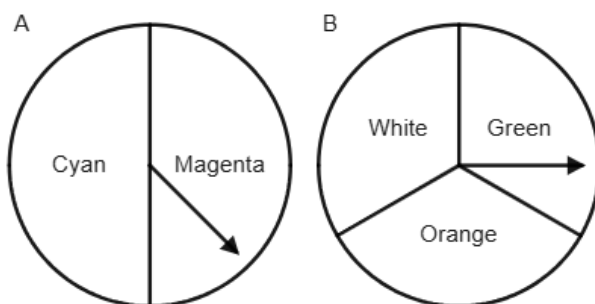
Calculate how many of the white rhinos are female.

..... female white rhino

---

### Question 30

Spinners A and B are each spun once.  
One possible outcome is "Magenta" and "Green", which can be abbreviated to MG.



Write down all the other possible outcomes.  
Use the abbreviated form.

MG, .....

---

### Question 31

800 pupils went on holiday over the summer.

25% of the pupils went to Ireland.

10% of the pupils went to Spain.

How many more pupils went to Ireland than to Spain?

.....

---

### Question 32

Adam invests £3775 into an savings account.

Adam gets 3.75% per year simple interest.

Work out the total interest Adam will get after 4 years.

£ .....

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### Question 33

Find the **first three** multiples of 14.

.....

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### Question 34

List **all** the factors of 28.

.....

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### Question 35

Martina is thinking of a number which is a factor of 28 and a factor of 105.

Martina's number is more than 3.

Find out what number Martina is thinking of.

.....

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### Question 36

Work out

$$5 - (-8)$$

.....

---

### Question 37

Solve for  $x$ :

$$x - 5 = 0$$

$$x = \dots\dots\dots$$

---

### Question 38

Make  $a$  the subject of the formula:

$$a + 9 = 7b$$

$$a = \dots\dots\dots$$

---

### Question 39

Make  $x$  the subject of the formula:

$$y = \frac{2}{5x}$$

$$x = \dots\dots\dots$$

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### Question 40

A number  $y$ , when rounded to the nearest whole, is equal to 78

Find the error interval for  $y$ .

.....

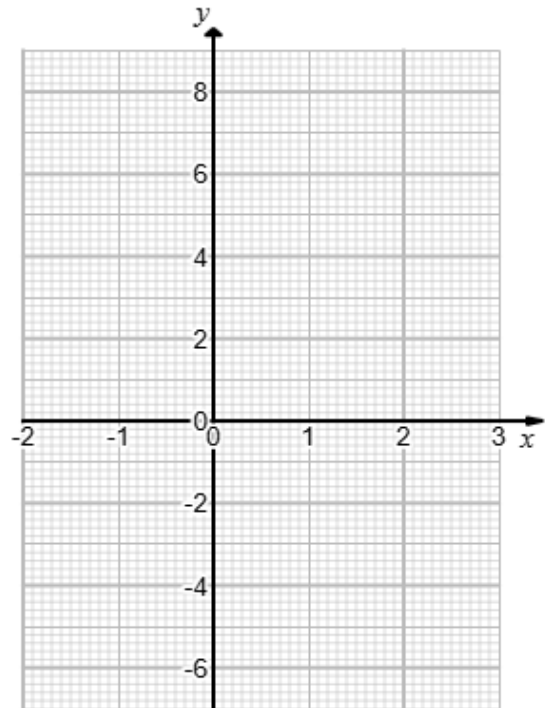
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### Question 41

Complete the table of values and use to plot the graph with equation

$$y = 3x - 1$$

$x$	-2	-1	0	1	2	3
$y$			-1			8



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### Question 42

Here are the masses, in grams, of some pencils.

9    4    4    10    9

2    2    4    7

Find the mean mass.

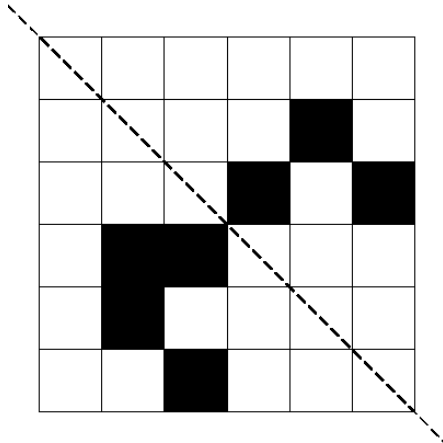
Give your answer correct to 1 decimal place where appropriate.

..... grams

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### Question 43

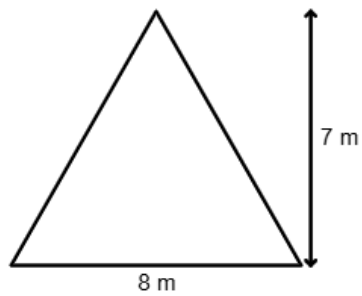
Shade in one more square to make the design symmetrical about the dashed mirror line.



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### Question 44

Find the area of the triangle.

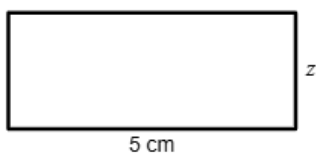


Area = ..... m<sup>2</sup>

---

### Question 45

The perimeter of the rectangle drawn below is 14 cm.



Find the value of  $z$ .

$z$  = ..... cm

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### Question 46

Simplify

$$40x \div 8$$

.....

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### Question 47

Simplify

$$8x \times 7p$$

.....

---

### Question 48

Felix drove a total of 170 miles in March.  
His car averages 23.1 miles per gallon.  
Petrol costs \$1.56 per litre.

Given that

$$1 \text{ gallon} \approx 4.5 \text{ litres}$$

calculate the total cost of petrol for Felix's driving in March.

Give your answer correct to the nearest cent.

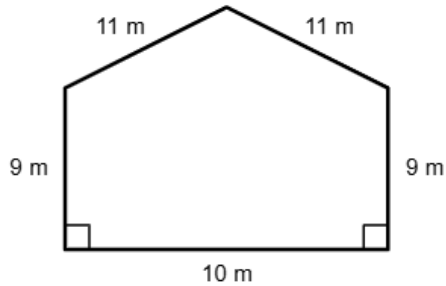
\$ .....



## Question 49

The diagram shows one wall of a house.

This wall is in the shape of a pentagon with exactly one line of symmetry.



Abdelkader is going to paint this wall once.

He has to buy all the paint that he needs to use.

The paint in each tin of paint Abdelkader is going to buy will cover  $18 \text{ m}^2$  of the wall.

Work out the least number of tins of paint Abdelkader will need to buy.

.....

## Question 50

There are 100 pupils in a group.

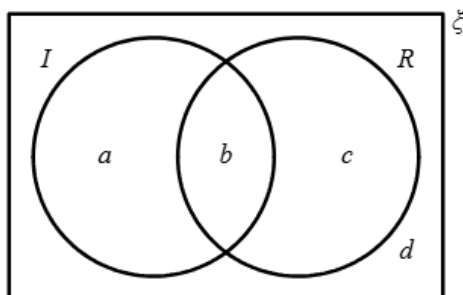
Some pupils study Italian ( $I$ ) and some study Russian ( $R$ ).

64 pupils study Italian

56 pupils study Russian

10 pupils study neither Italian nor Russian

Complete the Venn diagram.



$a = \dots\dots\dots, b = \dots\dots\dots, c = \dots\dots\dots, d = \dots\dots\dots$

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### Question 51

Use your calculator to work out the value of

$$\sqrt{\frac{19.7^2}{23.2 - 0.15}}$$

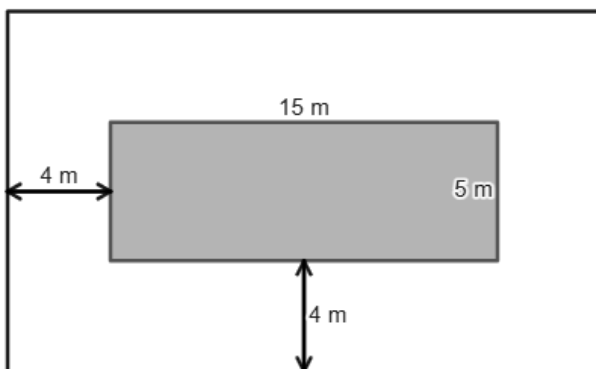
Write down all the digits you see on your calculator display.

.....

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### Question 52

The diagram shows the plan of a path around a pond.



The pond is in the shape of a rectangle with length 15 m and width 5 m.  
The path is 4 m wide.

Kimberley is going to cover the path with gravel.  
One bag of gravel will cover  $20 \text{ m}^2$  of the path.

Calculate how many bags of gravel Kimberley will need to buy.

..... bags

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### Question 53

Simplify

$$6^7 \div 6^2$$

Give your answer as a power of 6.

.....

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### Question 54

Write down the value of

$$15^0$$

$$15^0 = \dots\dots\dots$$

---

### Question 55

Alfie is  $z$  years old.

Latika is 10 years older than Alfie.

Write down an expression, in terms of  $z$ , for Latika's age.

.....

---

### Question 56

John collects the heights of some flowers and records the data in the table below.

Height ( $z$ cm)	Frequency
$35 < z \leq 40$	3
$40 < z \leq 45$	3
$45 < z \leq 50$	7
$50 < z \leq 55$	1

Find the mean of the data in the table.

Give your answer correct to 1 decimal place where appropriate.

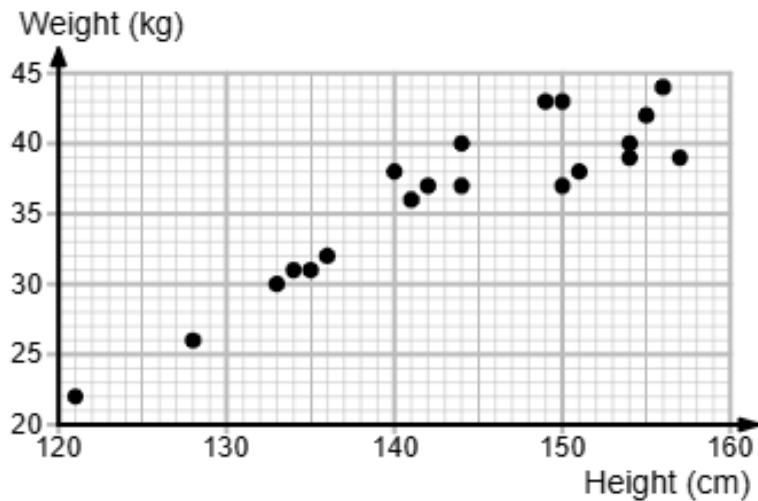
.....

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### Question 57

Basma recorded the height, in cm, and the weight, in kg, of each of 20 children.

The scatter graph shows information about her results.



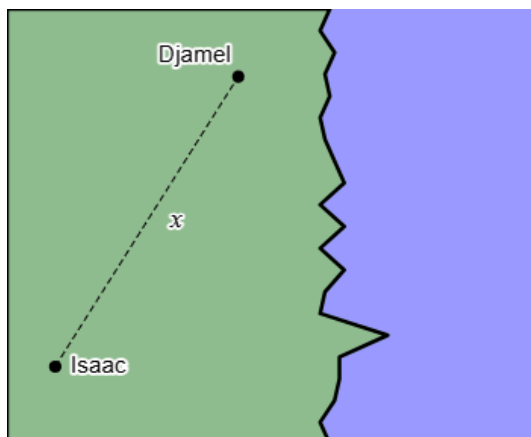
By using a line of best fit, estimate the height of a child who weighs 33 kg.

..... cm

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### Question 58

The scale of the map below is 1 cm : 250 km



The actual distance between Isaac and Djamel is 625 km

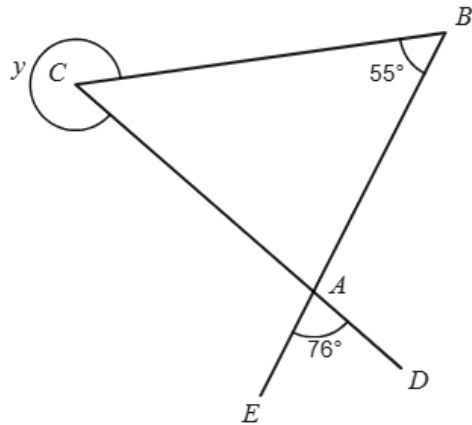
Find the distance on the map between Isaac and Djamel in cm.

..... cm

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### Question 59

$ABC$  is a triangle.  $CAD$  and  $BAE$  are straight lines.



Find the value of  $y$ .

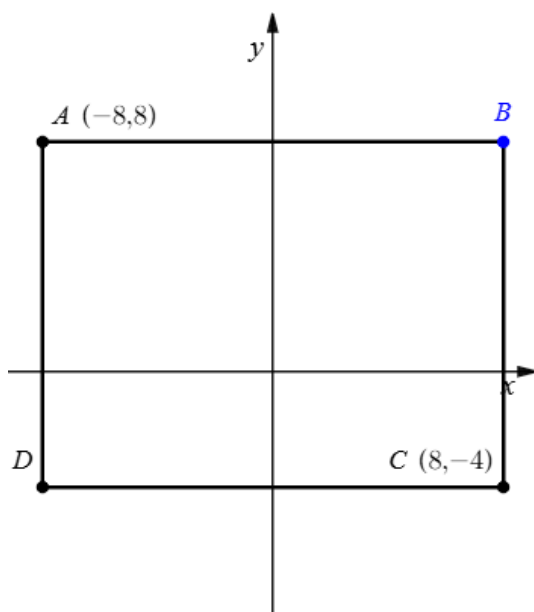
$y = \dots\dots\dots^\circ$

---

### Question 60

$ABCD$  is a rectangle. The sides of the rectangle are parallel to the axes.

Find the coordinates of point  $B$ .

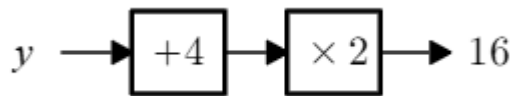


$(\dots\dots\dots, \dots\dots\dots)$

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### Question 61

Find the input of the function machine, marked  $y$  on the diagram.

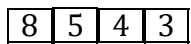


$y = \dots\dots\dots$

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### Question 62

Kai made a number using these digit cards



The number made was the **smallest even** number possible.

Write down the number that Kai made.

$\dots\dots\dots$

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### Question 63

The point  $Y$  is on a bearing of  $163^\circ$  from the point  $Z$ .

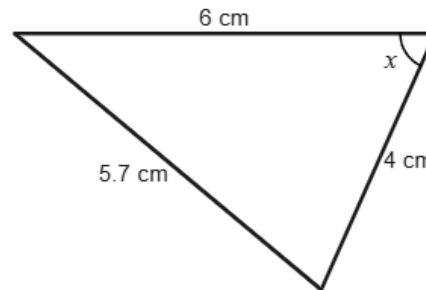
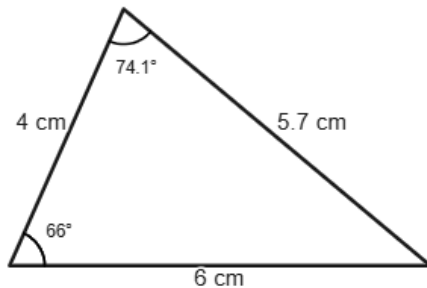
Work out the bearing of  $Z$  from  $Y$ .

$\dots\dots\dots^\circ$

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## Question 64

The diagram below shows two congruent triangles.



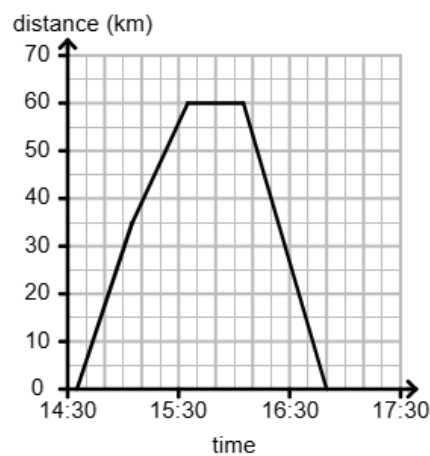
Determine the value of  $x$ .

..... °

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## Question 65

Abdallah sets off from home and travels to Benicio's house.  
He stays at Benicio's house for a short time, then travels back home.



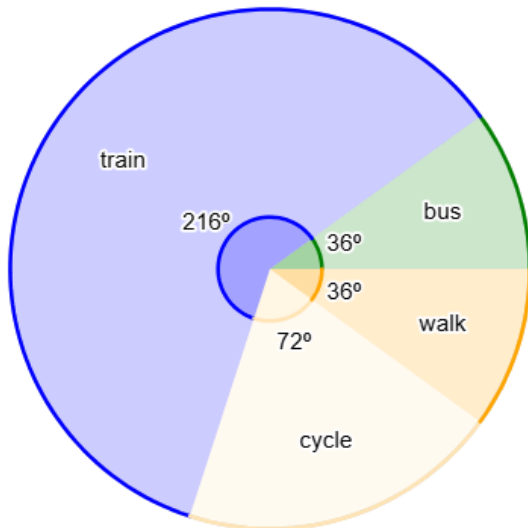
Find how long Abdallah takes to get back home from Benicio's house.

..... minutes

---

### Question 66

Jessica records how 60 pupils travelled to school on one day and represents this information on the pie chart below.



Work out how many people are in the category "walk".

..... people

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### Question 67

Solve for  $b$ :

$$37 = 4b + 1$$

$b = \dots\dots\dots$

---

### Question 68

Solve for  $b$ :

$$4(3b - 1) = 8b - 10$$

$b = \dots\dots\dots$



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### Question 69

Complete the table of values for the graph with equation  $y = x^2 + 6x + 3$

$x$	-3	-2	-1	0
$y$		-5		

---

### Question 70

There are 22 counters in a bag.

9 of the counters are white.

6 of the counters are brown.

The rest of the counters are black.

8 more counters are put in the into the bag.

When a counter is taken at random from the bag, the probability that it is black is now  $\frac{2}{5}$

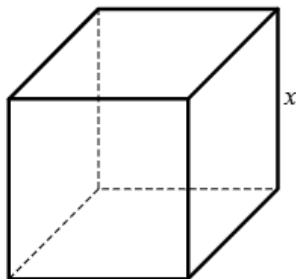
Find out how many of the counters that were put in the bag are black.

.....

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### Question 71

The diagram shows a cube with a surface area of  $150 \text{ mm}^2$ .



Find the length  $x$ .

.....  $\text{mm}^2$

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## Question 72

A bag contains counters of different colours.

The table shows the probability that a counter selected at random from the bag will be of the given colour.

There are 16 yellow counters in the bag.

### Colour Probability

red 0.2

yellow 0.1

black 0.3

white 0.15

purple 0.25

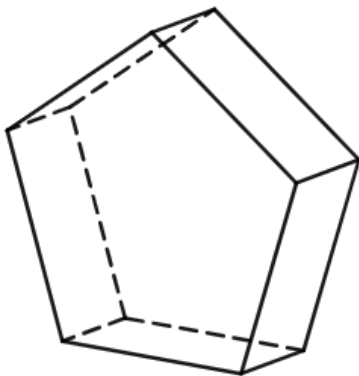
Work out the total number of red counters in the bag.

.....

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## Question 73

The diagram shows a prism.



Write down the number of vertices of the prism.

..... vertices

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### Question 74

Evaluate

$$11 \times 11 + 54 \div 9$$

.....

---

### Question 75

Add brackets to make the calculation correct.

$$48 \div 4 + 5 \times 4 = 2$$

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### Question 76

Solve

$$5x - 7 \leq 8$$

.....

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### Question 77

Put the following numbers in ascending order, starting with the smallest at the top.

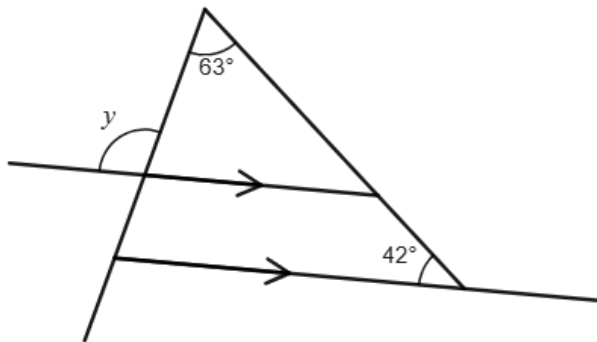
Order the following: 4.085 , 4.508 , 4.85 , 4.805 , 4.058

..... , ..... , ..... , ..... , .....

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### Question 78

Find the value of  $y$ .



$y = \dots\dots\dots^\circ$

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### Question 79

Alice buys a car for £13100 which depreciates in value at a rate of 2% per year.

Work out how much Alice's car will be worth in 3 years.

£  $\dots\dots\dots$

---

### Question 80

Aditi buys 12 video games for £80 each.

She sells them all for a total price of £624.

Calculate her percentage loss.

$\dots\dots\dots\%$

---

### Question 81

Here are five cards.

There is a number on each card.

Two of the numbers are hidden.

? 5 1 ? 7

The median of the five numbers is 6.

The mode of the five numbers is 6.

Work out the two numbers that are hidden.

.....  
.....

---

### Question 82

Here are the number of pets that some families own.

9 1 4  $t$

Given that the average number of pets is 6 pets, find the value of  $t$ .

$t =$  ..... pets

---

### Question 83

Factorise fully

$$40f^2 + 30f$$

.....

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### Question 84

Factorise the following quadratic:

$$x^2 + 5x - 24$$

.....

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### Question 85

Simplify

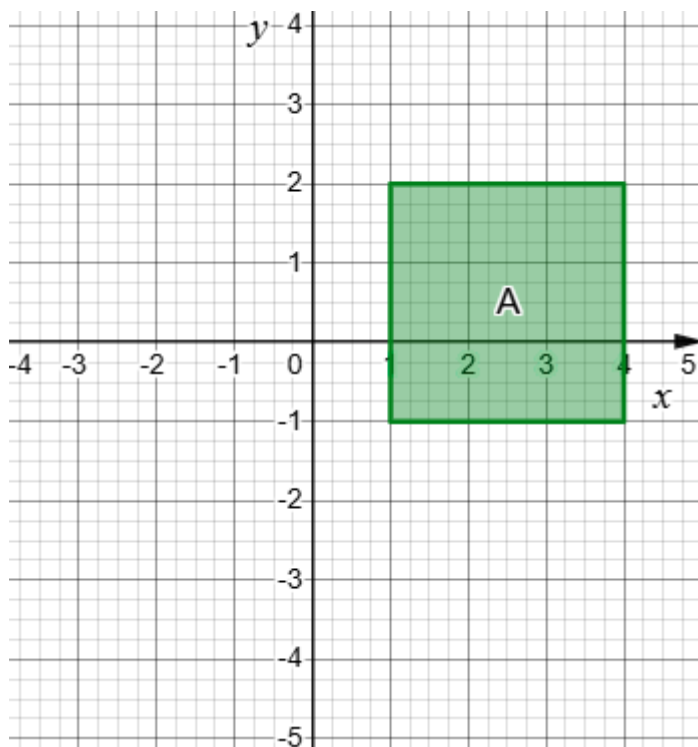
$$(5y^3)^2$$

.....

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### Question 86

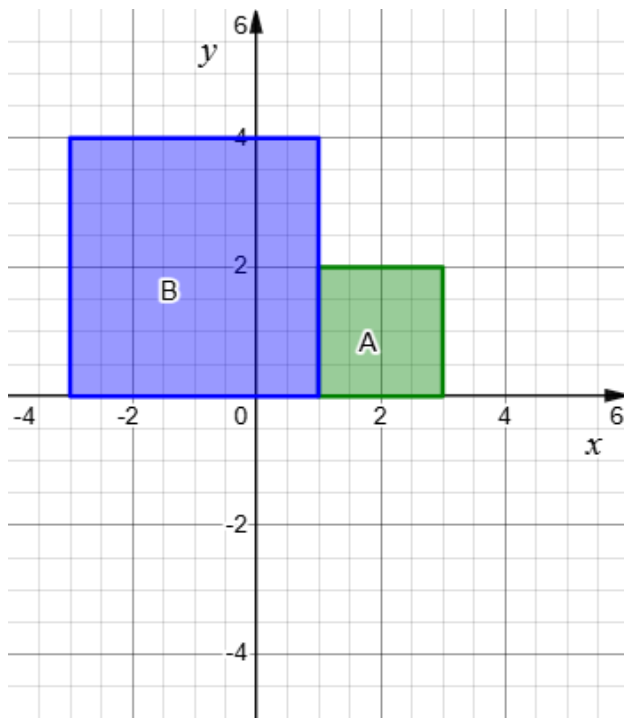
Reflect shape *A* against the line  $y = -x$ .



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### Question 87

Describe the transformation from  $A$  to  $B$ .



It is a/an .....

scale factor .....

centre .....

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### Question 88

A regular polygon has its interior angles all equal to  $140^\circ$ .

Find the number of sides of the polygon.

..... sides

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### Question 89

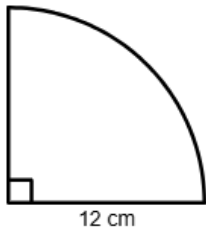
The price of a jumper is increased by 20% and is now £66.  
Find the original price.

£ .....

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### Question 90

Find the area of the shape drawn below.



Give your answer correct to 1 decimal place.

..... cm<sup>2</sup>