

Summer 2025

Edexcel 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.

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

It takes a group of bricklayers 30 hours to build a wall with a length of 180 m .

Find how long it would take the same group, working at the same rate, to build a wall with a length of 60 m.

..... hours

Question 2

6 taps fill a tank in 35 hours.

How long would it take to fill the tank if 7 taps are working?

..... hours

Question 3

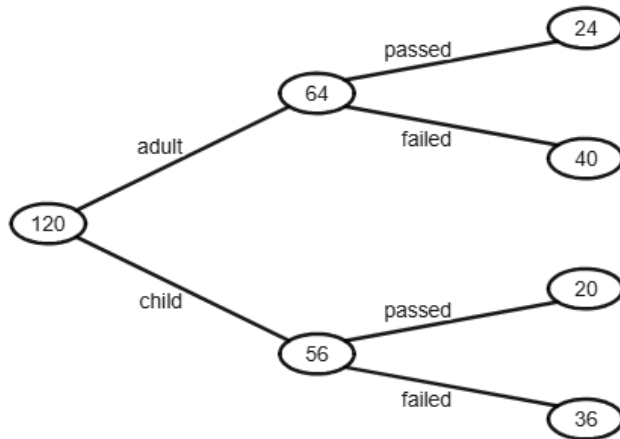
The probability that Tom wins in a game is $\frac{1}{2}$.

Find the probability that Tom does not win.

.....

Question 4

120 people took a test. The information is shown in the frequency tree below.



One of these people is picked at random.

Find the probability that this person is a child.

Question 5

These are the prices at a cinema:

Lollipops cost ££0.50 each.

Popcorn bags cost £0.79 each.

Toffee apples cost £0.75 each.

Chocolate bars cost £0.75 each.

Diego buys 3 popcorn bags and 1 toffee apple.

Work out how much this costs.

Cost = £

Question 6

Annabelle goes to a supermarket and buys grapefruits which cost €0.25 each. She has €1.45 to spend.

Work out how many grapefruits she can purchase.

..... grapefruits

Question 7

Two websites sell the same tablet.

	Website A	Website B
Cost of tablet	\$ 72.49	\$ 65.79
Cost of postage	\$ 2.99	\$ 9.99

Aarya is going to buy the tablet from one of the two websites.

Work out which website has the cheapest total cost, and by how much.

Website is cheaper
by pence.

Question 8

At a florist, roses cost 60¢.

Lexi pays \$5.35 for 4 roses and 5 tulips.

Determine how much Lexi paid for each tulip.

..... ¢

Question 9

Write $18 : 27$ in its simplest form.

..... :

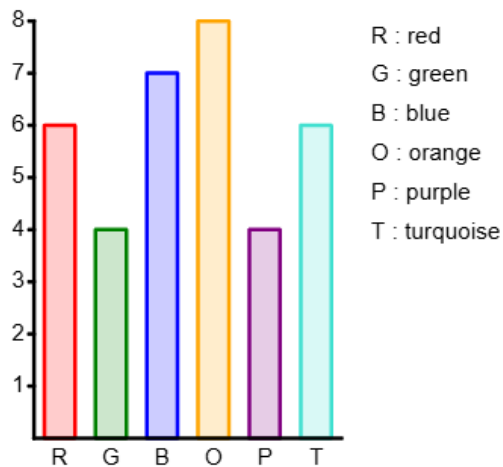
Question 10

Write $28 : 20$ in the form $n : 1$, where n is a decimal.

..... :

Question 11

The bar chart gives information about the number of students who selected the given colour as their favourite colour.



Write down the ratio of students who preferred blue to the number of students who did not select blue.

..... :

Question 12

There are only red cubes and yellow cubes in a bag.

There are half as many red cubes as yellow cubes.

Write the ratio of red cubes to yellow cubes.

..... :

Question 13

Here is a sequence of patterns made with square tiles.



Select the diagram that shows the next pattern in the sequence.

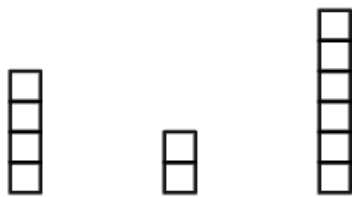


Diagram A Diagram B Diagram C

Diagram A []

Diagram B []

Diagram C []

Question 14

Work out the number of tiles in the 6th pattern in the sequence below.



.....

Question 15

A sequence starts with: 15, 20, 25, 30, ...

Calculate the next four terms.

.....

Question 16

A sequence starts with: 2, 10, 50, 250, ...

Find the next three terms.

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

Question 17

The n th term of a sequence is $4n - 1$

Work out the 77th term of the sequence.

.....

Question 18

Find the n th term of the sequence.

1, -4, -9, -14, ...

n th term =

Question 19

Convert 700 cm to m.

..... m

Question 20

Convert 78.8 kg to g.

..... g

Question 21

Sort these measurements into order.

Put the smallest measurement at the top.

Order the following: 130 litres , 29000 ml , 130 litres , 900 ml

..... , , ,

Question 22

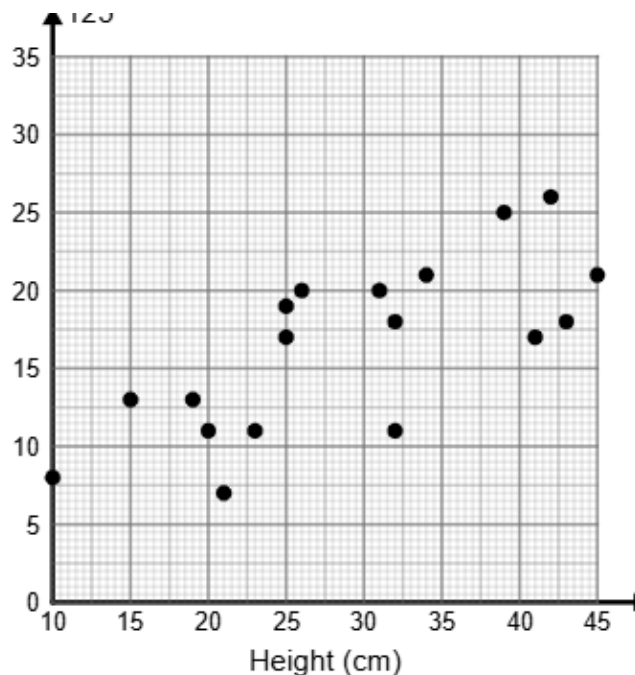
Scarlet recorded the height, in cm, and the weight, in kg, of each of 20 children.

The scatter graph shows information about 18 of her results.

The 19th child is 127 cm tall and weighs 12 kg.

The 20th child is 129 cm tall and weighs 22 kg.

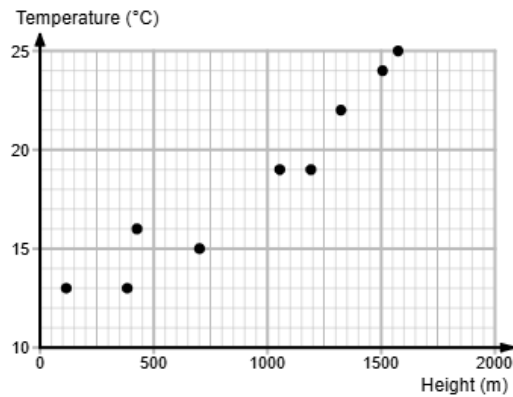
Complete the scatter graph to show this information.



Question 23

Delfina records the midday temperature at 9 different heights on a mountain.

The scatter diagram shows her results.



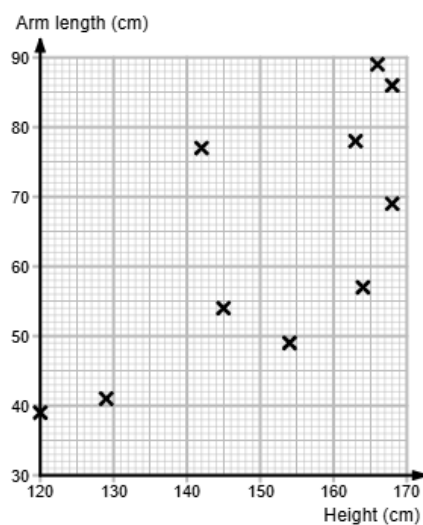
Delfina takes another measurement. She records that at 1300m the temperature is 14°C

Is this point an outlier?

Question 24

Niko recorded the height, in cm, and the arm length, in cm, of each of 10 pupils in Year 12.

The scatter graph shows information about his results.



Describe the type of correlation shown in the scatter diagram.

Question 25

Use a calculator to work out the value of

(Could not display math)

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

.....

Question 26

Use your calculator to work out the value of

$$\frac{\sqrt{35.8 - 8.02}}{4.48 + 3.65^3}$$

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

.....

Question 27

Simplify

$$8x + 14x + 6x - 9x$$

.....

Question 28

Solve for x :

$$x + 12 = 15$$

$x = \dots\dots\dots$

Question 29

Solve for x :

$$6 = 8x - 6$$

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

Question 30

Solve to find x .

$$8 - x = 10$$

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

Question 31

Here are the temperatures, in $^{\circ}\text{C}$, recorded in ten European cities.

15	15	15	16	16
24	0	18	13	-5

Find the modal temperature.

$\dots\dots\dots^{\circ}\text{C}$

Question 32

Here are the number of pets that some families own.

10	10	8	3	5
1	5	6	9	n

Given that the average number of pets is 6.3 pets, find the value of n .

$n = \dots\dots\dots$ pets

Question 33

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

16 20 16 22 19
11 10 22 24

Find the range of these masses.

..... grams

Question 34

Here is a list of numbers.

0.2 9.9 8 4.7 6.3
6.9 0 3.7 9.4

Work out the median.

.....

Question 35

Simplify

$$x \times x^6$$

.....

Question 36

Simplify

$$\frac{2^7}{2^5}$$

Give your answer as a power of 2.

.....

Question 37

Simplify

$$m^0$$

.....

Question 38

Simplify

$$(m^6)^3$$

.....

Question 39

Simplify

$$6^2 \times (6^6)^2$$

Give your answer as a power of 6.

.....

Question 40

Simplify

$$\frac{p^7 \times p^7}{p^{10}}$$

.....

Question 41

Simplify

$$4s^3t^4 \times 2t^3$$

.....

Question 42

Here are the number of texts that 13 pupils sent yesterday.

Number of texts	Frequency
5	○○
6	○○○○◐
7	○

Key: ○ = 2

Find the frequency for 6 texts.

.....

Question 43

Here is an incomplete pictogram showing the number of pens that 17 pupils own.

Number of pens	Frequency
4	
5	○◐
6	○○◐

Key: ○ = 4

Complete the pictogram.

Question 44

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

Mass	Frequency
5	<input type="checkbox"/>
6	<input type="checkbox"/> <input type="checkbox"/>
7	<input type="checkbox"/>
8	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
9	<input type="checkbox"/> <input type="checkbox"/>

Given that 4 pencils were 6 grams, complete the key.

Key: ☐ =

Question 45

Divide 22 in the ratio 8 : 3

.....
.....

Question 46

Vamika, Jiya and Mia share a sum of money in the ratio 5 : 7 : 13

Mia got £260.

Work out the difference between the amount received by Vamika and Jiya.

£

Question 47

There are green, yellow and purple counters in a bag in the ratio 10 : 11 : 12

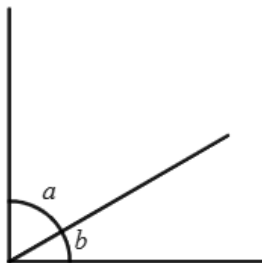
There are 2 more yellow counters than green counters.

Calculate the number of green counters.

..... counters

Question 48

The diagram shows a right angle.



$$a : b = 2 : 1$$

Calculate the value of the angles.

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

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

Question 49

Factorise fully

$$32z + 40$$

.....

Question 50

Factorise completely

$$45rs + 54r$$

.....

Question 51

Expand, simplify and fully factorise

$$3s(7 - 2s) - 2s(3 - 8s)$$

.....

Question 52

Factorise the following quadratic:

$$x^2 + 11x + 10$$

.....

Question 53

Expand

$$2(7z + 3x + 4y)$$

.....

Question 54

Expand

$$7x(2x - 2)$$

.....

Question 55

Expand and simplify

$$(y + 2)(y + 3)$$

.....

Question 56

Simplify

$$2 \times 3a \times 6$$

.....

Question 57

Simplify

$$2a^3p \times 5$$

.....

Question 58

Simplify

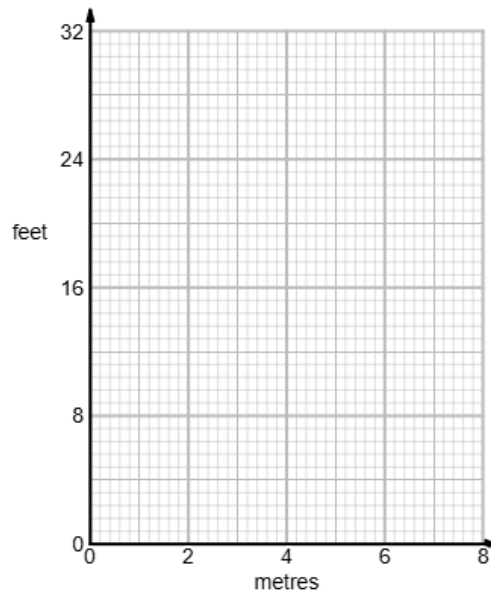
$$-4q^2 \times -7y$$

.....

Question 59

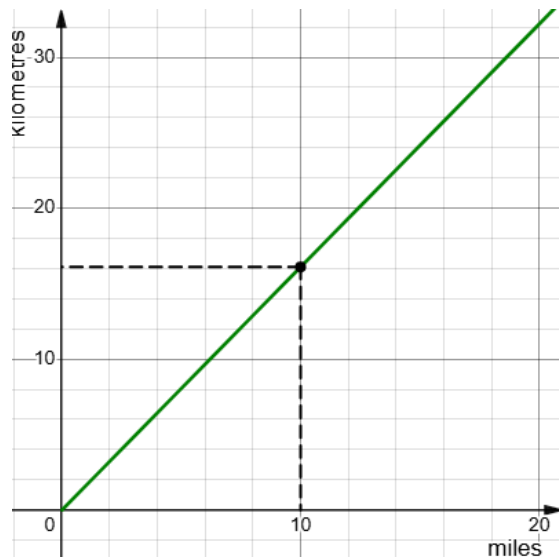
3 metres is approximately 10 feet.

Use this information to draw a conversion graph.



Question 60

Niamh has drawn a conversion graph to convert between miles and kilometres.

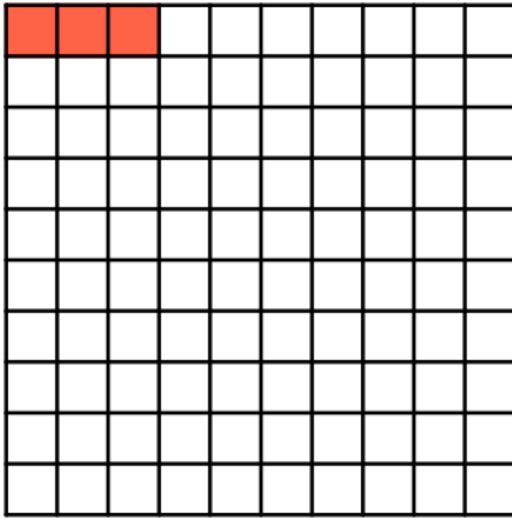


Use the conversion graph to convert 26 kilometres to miles.

..... miles

Question 61

Find what percentage of the shape is shaded.



..... %

Question 62

Convert 61 % to a fraction.

Question 63

Convert $\frac{7}{10}$ to a percentage.

..... %

Question 64

By rounding each number to 1 significant figure, estimate the answer to:

$$\frac{7.77 \times 79}{81}$$

.....

Question 65

The perimeter of the shape below is 112.5 cm.

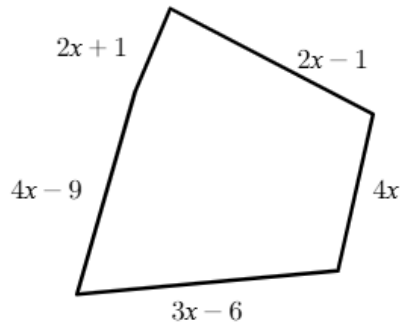


Diagram **not** accurately drawn.

Form an equation and find the value of x .

$x = \dots\dots\dots$ cm

Question 66

Lucy thinks of a number x .
She subtracts 4 and then divides the result by 6
The answer is 1

Find the number that Lucy was thinking of.

$x = \dots\dots\dots$

Question 67

Round 29622 to the nearest thousand.

$\dots\dots\dots$

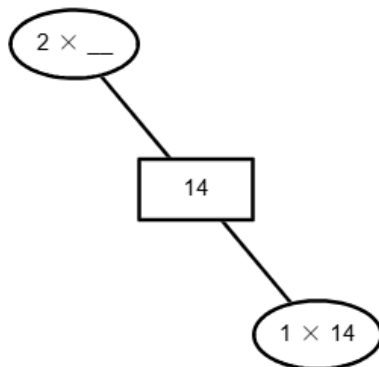
Question 68

Round 4334820 to the nearest 100000.

$\dots\dots\dots$

Question 69

George has drawn a diagram to show all the pairs of numbers that multiply to make 14.



Find the missing factor.

.....

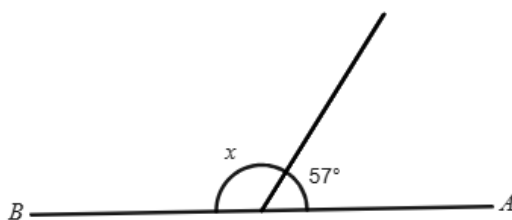
Question 70

List **all** the factors of 24.

.....

Question 71

AB is a straight line.

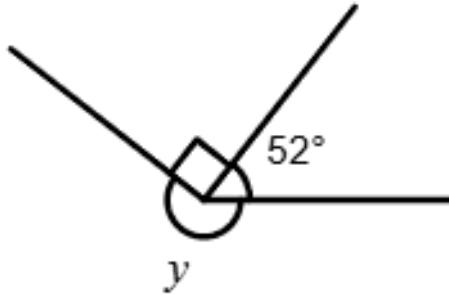


Find the value of x .

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

Question 72

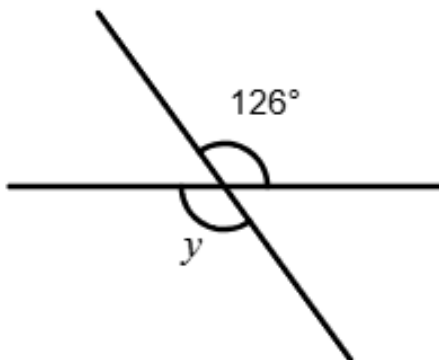
Find the value of y .



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

Question 73

Find the value of y .



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

Question 74

Jonathan records how 80 pupils travelled to school on one day.

Calculate the angles required to draw a pie chart representing this information.

Type of transport	Frequency	Angle (°)
cycle	24	
walk	17	
train	20	
bus	11	
other	8	

Question 75

Write 393000 in standard form.

x 10

Question 76

Convert 4.96×10^{-4} to an ordinary number.

.....

Question 77

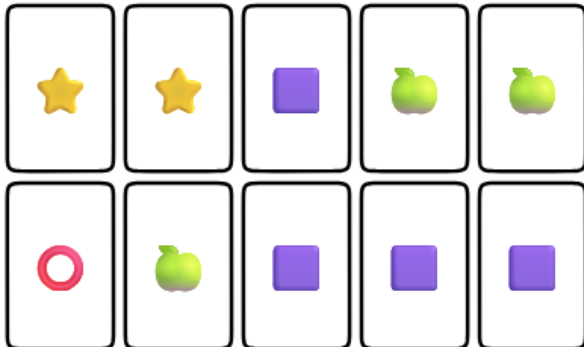
Put the following numbers in ascending order, starting with the lowest at the top.

Order the following: -12 , -19 , 1 , -8 , -6

..... , , , ,

Question 78

A game uses cards, labelled as below:



If a card is selected at random, determine the **most** likely symbol on the card.

[]

[]

[]

[]

Question 79

Valentina throws a fair six-sided die.

Choose a word to describe the chance that the die will land on an odd number.

Impossible []

Unlikely []

Evens []

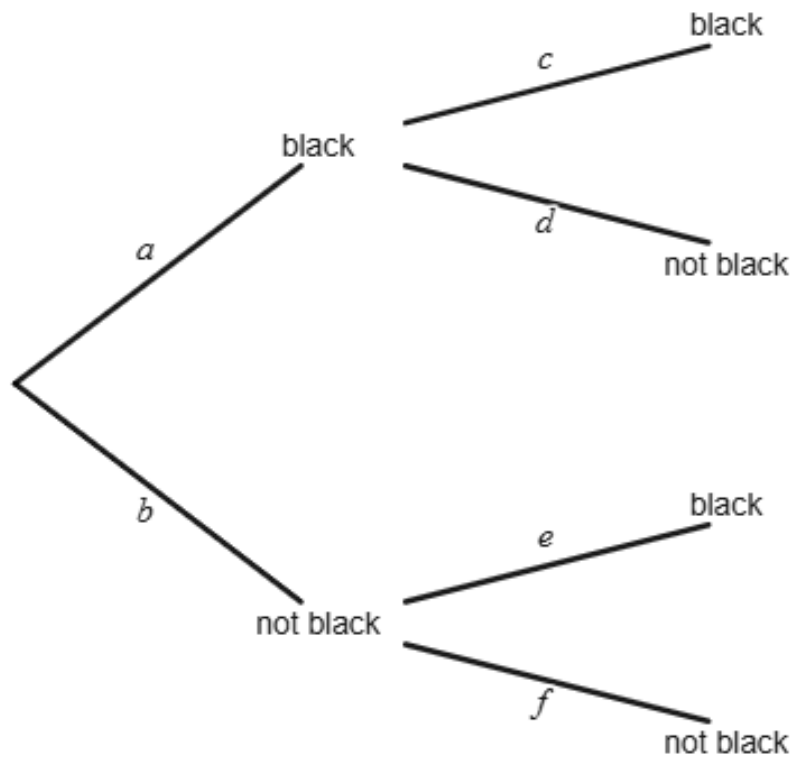
Likely []

Certain []

Question 80

Aisling has 8 black socks and 12 yellow socks in a bag.

Aisling takes one sock at random from the bag, puts it back, and takes another sock from the bag.



Complete the tree diagram.

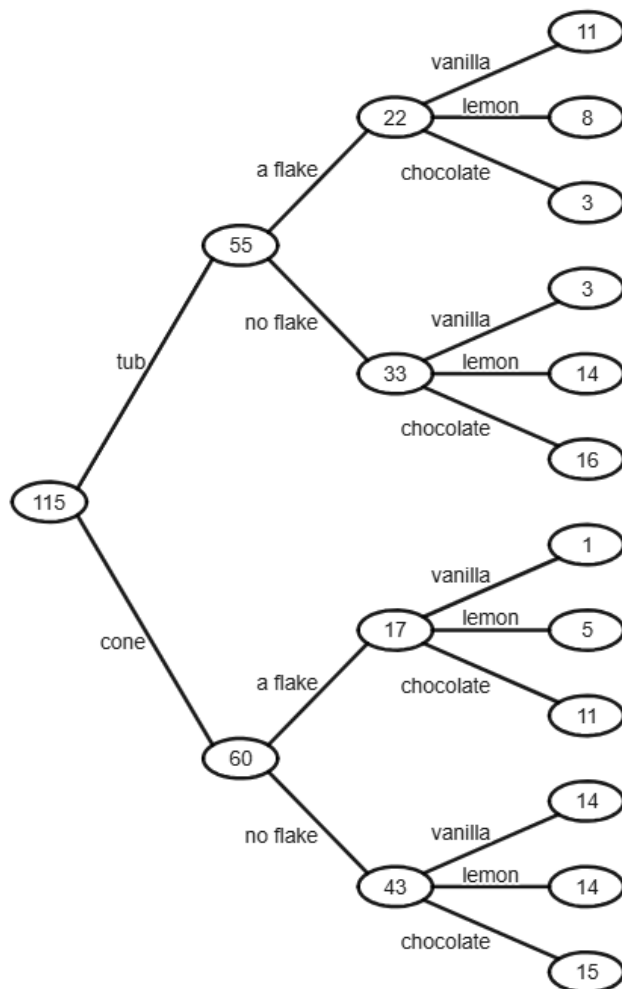
$a = \dots\dots\dots, b = \dots\dots\dots, c = \dots\dots\dots, d = \dots\dots\dots, e = \dots\dots\dots, f = \dots\dots\dots$

Question 81

Jiya's cafe sells ice cream.

Customers choose to have a tub or a cone, and a flake or no flake.
They can choose vanilla, lemon or chocolate ice cream.

This frequency tree shows the choices customers made one day.

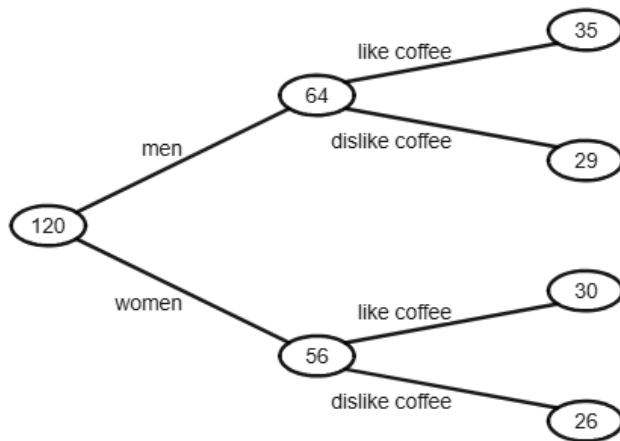


Find the total sales of lemon ice cream.

.....

Question 82

120 people answered a survey. The information is shown in the frequency tree below.



One of these people is picked at random.

Find the probability that this person is male who dislikes coffee.

The diagram consists of two dashed rectangles. The rectangle on the left is a single solid rectangle. The rectangle on the right is divided into two equal horizontal sections by a solid black line.

Question 83

Select the option which means the same as 5^3

- $$\begin{array}{r} 3 \times 3 \times 3 \times 3 \times 3 \text{ []} \\ 5 \times 3 \text{ []} \\ 5 \times 5 \times 5 \text{ []} \\ 5 + 5 + 5 \text{ []} \end{array}$$

Question 84

Select each cube number.

- 8 []
85 []
145 []
96 []
114 []

Question 85

The ratio of sheep to pigs on a farm is 3 : 4

Work out the fraction of animals that are sheep.

Question 86

Beth, Ahmed and Juan share a sum of money. Beth gets $\frac{1}{9}$ of the money, Ahmed gets $\frac{3}{10}$ and Juan gets the rest.

State the ratio of Beth's share to Ahmed's share to Juan's share.

..... : :

Question 87

A number p , when rounded to the nearest 100, is equal to 2400

Find the upper and lower bound of p .

Lower bound =

Upper bound =

Question 88

50 pupils studying sciences were asked which science subject they liked the best.

Some information about the results is shown in the two-way table.

Complete the two-way table.

	Physics	Chemistry	Biology	Total
Boy	7	5		
Girl	5		12	19
Total		7	31	50

Question 89

Round 0.386 to the nearest whole number.

.....

Question 90

Round 12.295 to 2 decimal places.

.....

Question 91

Find 50% of 280.

.....

Question 92

Find 1% of 670.

.....

Question 93

160 pupils went on holiday over the summer.

30% of the pupils went to Ireland.

15% of the pupils went to France.

How many more pupils went to Ireland than to France?

.....

Question 94

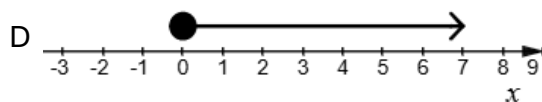
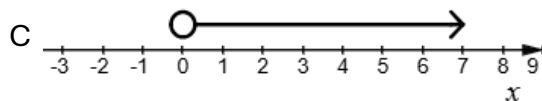
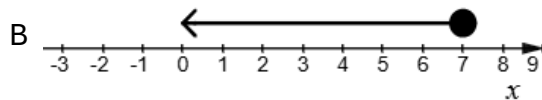
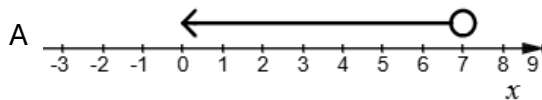
Solve

$$20 \leq b + 9$$

.....

Question 95

Represent $x < 7$ on a number line.



A []

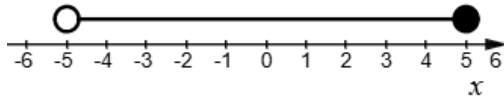
B []

C []

D []

Question 96

List the integer values represented by the inequality shown in the diagram.



.....

Question 97

Kabir invests £530 into an account that pays 3.25% compound interest per annum.

Work out how much Kabir will have in the account after 5 years.

£

Question 98

Abdi is planning on investing £700 into a savings account for 3 years. She is presented with the two options below.

Account A

Pays compound interest of 3 % per year.

Account B

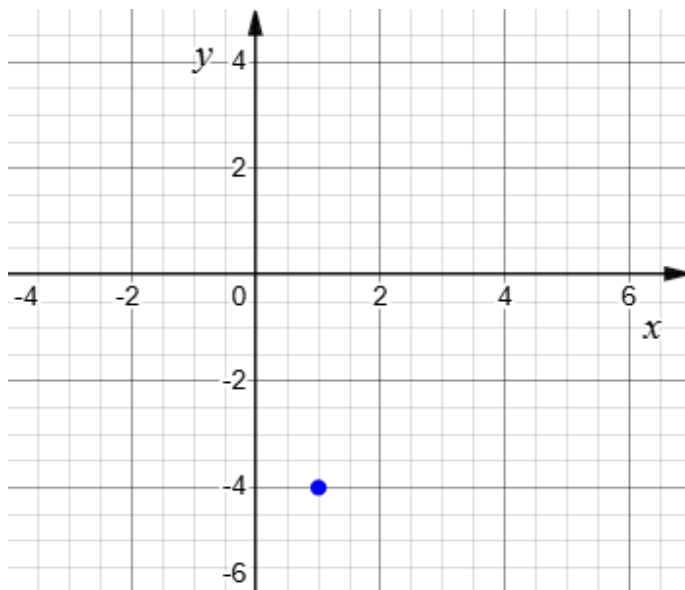
Pays simple interest of 2 % per year.

Determine how much more Abdi will earn with account A compared to account B.

£

Question 99

Find the coordinates of the point marked on the grid below.

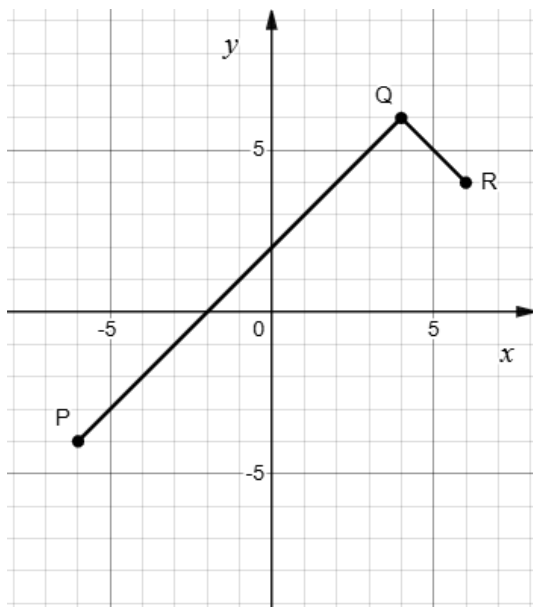


(..... ,)

Question 100

The diagram shows points P , Q and R on a square grid.

On the grid, mark the point S so that $PQRS$ is a rectangle.



Question 101

Write

30%

as a decimal.

.....

Question 102

Convert

0.75

to a percentage.

..... %

Question 103

Find $\frac{1}{2}$ of 18

.....

Question 104

Find $\frac{1}{12}$ of 60

.....

Question 105

Given that

$$x = \frac{a+b}{5}$$

evaluate x when $a = 1.8$ and $b = 4.4$

.....