NON-CALC J

GCSE Mathematics · Foundation Tier

40 marks · 45 minutes · Non-calculator

Name ..... **Class** .....

Answer all questions. Show all your working. Diagrams are NOT accurately drawn unless stated.

1 **(a)** Write $\frac{3}{5}$ as a percentage.

..... %

(1)

(b) Write down a factor of 28 that is greater than 10

.....

(1)

(c) Write down the cube root of 27

.....

(1)

(Total for Question 1 is 3 marks)

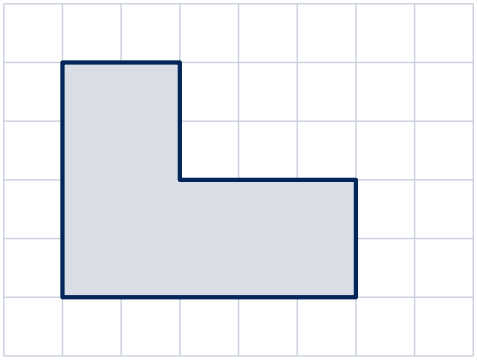
2 There are 32 students in a class. 12 of the students are boys.

What fraction of the students are girls? Give your answer in its simplest form.

.....

(Total for Question 2 is 2 marks)

3 The shaded shape is drawn on a centimetre grid.



(a) Find the area of the shape.

..... cm^2

(1)

(b) Find the perimeter of the shape.

..... cm

(1)

(Total for Question 3 is 2 marks)

4 A pen costs 15p. A ruler costs 40p.

Write an expression for the total cost, in pence, of *a* pens and *b* rulers.

..... p

(Total for Question 4 is 2 marks)

5 The table shows the favourite fruit of 25 students.

Fruit	Apple	Banana	Orange	Pear
Frequency	7	5	9	4

On the grid, draw a bar chart to show this information.



(2)

(Total for Question 5 is 2 marks)

6 Work out $\frac{3}{4} \times \frac{10}{21}$

Give your answer as a fraction in its simplest form.

.....

(Total for Question 6 is 2 marks)

7 $23 \times 47 = 1081$

Use this fact to write down the value of

(a) 2.3×47

.....

(1)

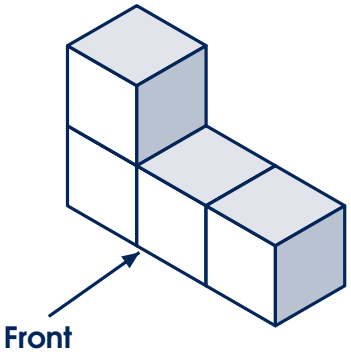
(b) $1081 \div 4.7$

.....

(1)

(Total for Question 7 is 2 marks)

8 The diagram shows a solid made from four centimetre cubes.



On the centimetre grid, draw the front elevation of the solid.

(2)

(Total for Question 8 is 2 marks)

9 A bag contains only red, blue and green counters.

The probability of taking a red counter at random is 0.4

There are twice as many blue counters as green counters in the bag.

(a) Work out the probability of taking a green counter at random.

.....

(2)

There are 8 red counters in the bag.

(b) How many counters are in the bag altogether?

.....

(1)

(Total for Question 9 is 3 marks)

10 *A* is the point (0, 3). *B* is the point (2, 7).

(a) Work out the gradient of the line *AB*.

.....

(2)

(b) Is the point (5, 14) on the line through *A* and *B*?

You must show how you get your answer.

(1)

(Total for Question 10 is 3 marks)

11 A café sells 4 types of sandwich and some types of drink.

A meal deal is one sandwich and one drink.

There are 28 different meal deals.

How many types of drink does the café sell?

.....

(Total for Question 11 is 2 marks)

12 The normal price of a TV is £400

In a sale, the price is reduced by 15%.

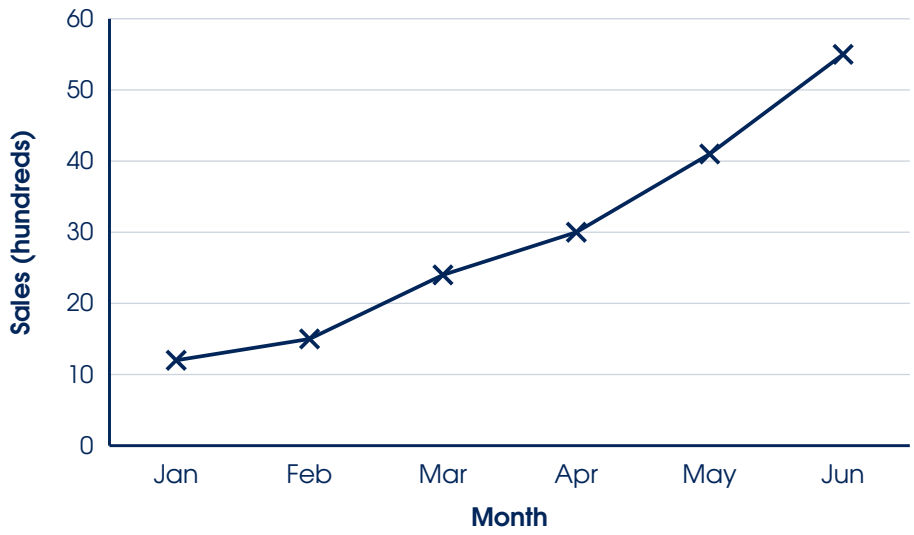
A week later, the sale price is reduced by a further 10%.

Lena says, "Altogether, the price has been reduced by 25%."

Is Lena correct? You must show all your working.

(Total for Question 12 is 3 marks)

13 The time series graph shows the ice cream sales at a shop from January to June.



(a) Between which two months did sales increase the most?

.....

(1)

(b) Describe the trend in the sales.

.....

(1)

(Total for Question 13 is 2 marks)

14 The area of this trapezium is 40 cm².

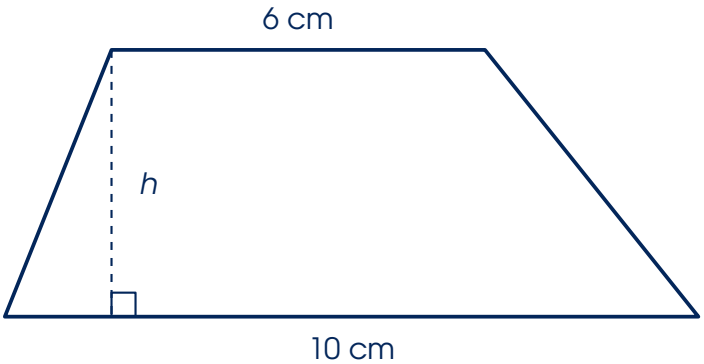


Diagram NOT accurately drawn

Work out the height, *h*, of the trapezium.

h = ... cm

(Total for Question 14 is 3 marks)

15 Jen is 3 times as old as her son.

In 12 years' time, Jen will be twice as old as her son.

How old is Jen now?

..... years

(Total for Question 15 is 3 marks)

16 At a garden centre, 3 bags of compost cost the same as 5 bags of sand.

A bag of sand costs £4.20

Mia buys 2 bags of compost and 3 bags of sand. She pays with a £30 note.

How much change should Mia get?

£.....

(Total for Question 16 is 4 marks)

TOTAL FOR PAPER IS 40 MARKS