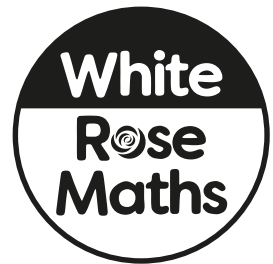


For: Pearson Edexcel GCSE (9–1)

# GCSE

## Practice Paper 1MA1



# Mathematics

## Paper 2F (Calculator) Foundation Tier



Surname

Other names

### Set B

Written in accordance with advance information for November 2022

#### **You should have:**

A pen, pencil, ruler, eraser, protractor and a scientific calculator.

Tracing paper may be used.

A formula sheet.

#### **Information**

- The total mark for this paper is 80
- The marks for each question are shown in brackets.
- Answer all questions in the spaces provided – *there may be more space than you need.*
- You must show all your working.
- Diagrams are not accurately drawn, unless otherwise indicated.
- Check your answers if you have time at the end.

This assessment has been designed by White Rose Maths.

For more information, please visit [www.whiterosemaths.com](http://www.whiterosemaths.com)

- 1 a)** Write thirty thousand and forty-two in figures.

\_\_\_\_\_

(1 mark)

- b)** Write the following numbers in order of size, starting with the smallest.

1870      1807      1708      1087      1078

\_\_\_\_\_

(2 marks)

- 2** Write 35% as a fraction in its simplest form.

\_\_\_\_\_

(2 marks)

- 3 a)** Change 3.5 kilometres to metres.

\_\_\_\_\_ m

(1 mark)

- b)** Change 628 millimetres to centimetres.

\_\_\_\_\_ cm

(1 mark)

- c)** Sam thinks that 1 hour 45 minutes is the same as 1.45 hours.  
Explain why Sam is wrong.

(2 marks)

4

Theatre tickets	
Adult	£32.50
Senior	£20.75
Child	£14.25

Mrs Fisher buys two adult tickets and three child tickets.

**a)** Calculate the total cost of Mrs Fisher's tickets.

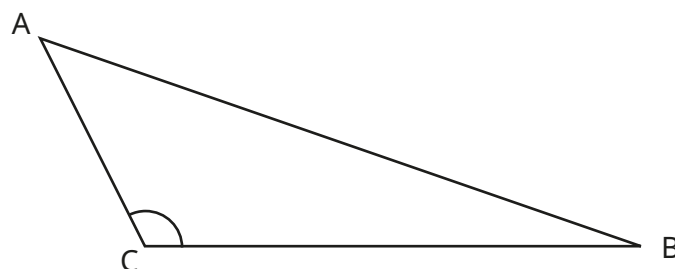
£ \_\_\_\_\_  
(2 marks)

Dr Hall spends £145.25 on senior tickets only.

**b)** How many tickets does she buy?

\_\_\_\_\_  
(2 marks)

5 Here is triangle ABC.



**a)** Measure the length of side AB.

\_\_\_\_\_  
(1 mark)

**b)** Measure angle ACB.

\_\_\_\_\_°  
(1 mark)

**6** Here are the ages of some people in a running club.

19   17   15   21   18   26   16   24   31   18   37

**a)** Draw an ordered stem-and-leaf diagram to show this information.

You must include a key.

(3 marks)

**b)** Find the median age.

\_\_\_\_\_

(2 marks)

A 25-year-old runner joins the running club.

Mo says, "The median age will decrease."

**c)** Is Mo correct?

You must explain your answer.

(1 mark)

**7** Solve  $4y - 8 = 3$

\_\_\_\_\_  
(2 marks)

**8** Which is greater, 17% of £600 or  $\frac{3}{8}$  of £320  
Show working to justify your answer.

\_\_\_\_\_  
(3 marks)

**9 a)** Simplify  $3f - 2e + f - 5e$ .

\_\_\_\_\_  
(2 marks)

**b)** Work out the value of  $\frac{3h - 1}{2}$  when  $h = -5$

\_\_\_\_\_  
(2 marks)

**10** Write the fractions in order of size.

Start with the smallest fraction.

$$\frac{8}{15}$$

$$\frac{1}{2}$$

$$\frac{1}{3}$$

$$\frac{2}{5}$$

$$\frac{5}{6}$$

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(2 marks)

**11** Dani pays £12 for five sandwiches.

All the sandwiches are the same price.

**a)** How much do three sandwiches cost?

£ \_\_\_\_\_

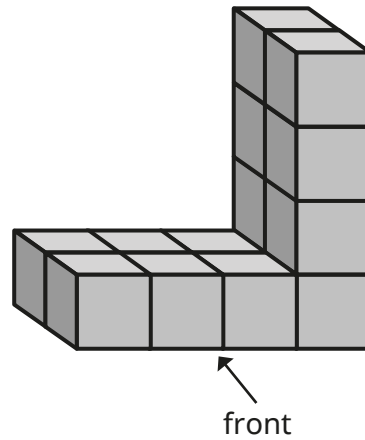
(2 marks)

**b)** How many sandwiches can Dani buy with £35?

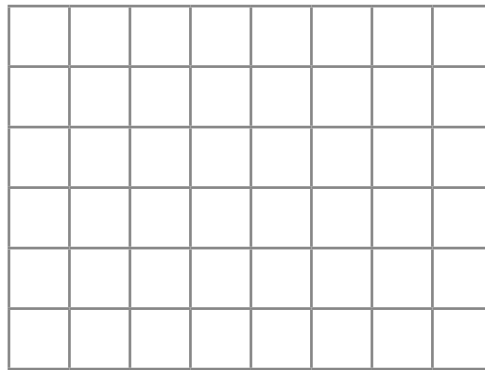
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(2 marks)

**12** The diagram shows a shape made from centimetre cubes.

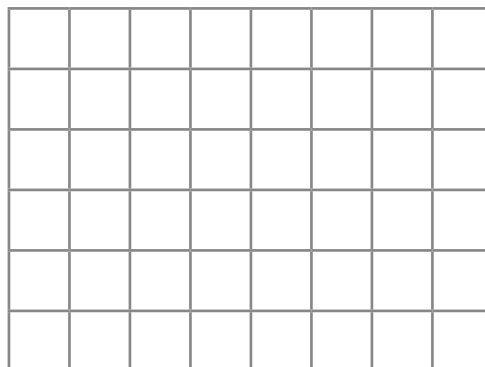


**a)** On the centimetre square grid, draw the front elevation of the shape.



(2 marks)

**b)** On the centimetre square grid, draw the plan view.



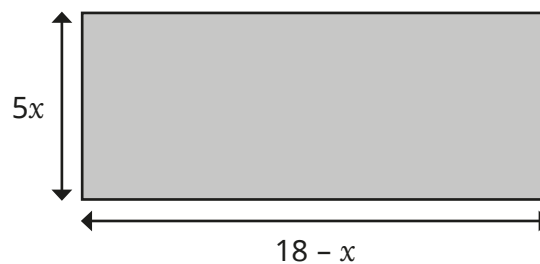
(2 marks)

**13 a)** Expand  $x(7 - x + 2y)$ .

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(2 marks)

**b)** Here is a rectangle.



Write a simplified expression, in terms of  $x$ , for the perimeter of the rectangle.

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(2 marks)

**14** Eva writes down three different numbers.

The mean of Eva's numbers is 9

She did **not** write down the number 9

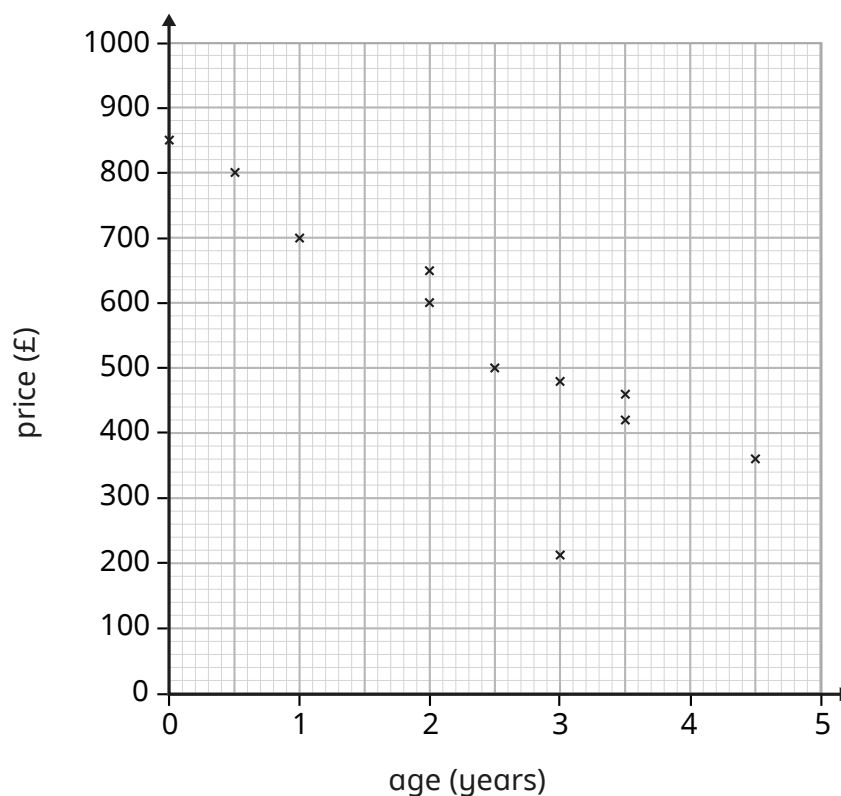
What possible numbers could Eva have written down?

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(2 marks)



- 15** The scatter graph shows the price and age of 11 bikes of the same make and model.



- a)** Write the price of the bike when new.

£ \_\_\_\_\_

(1 mark)

- b)** The price of a 4-year-old bike of the same make and model is £380

Add this information to the scatter graph.

(1 mark)

- c)** Describe the type of correlation shown in the scatter graph.

\_\_\_\_\_

(1 mark)

- d)** By drawing a line of best fit, estimate the cost of a  $1\frac{1}{2}$ -year-old bike of the same make and model.

£ \_\_\_\_\_

(2 marks)

- e)** Circle the outlier on the scatter graph.

(1 mark)

**16** Here are the first five terms of a sequence.

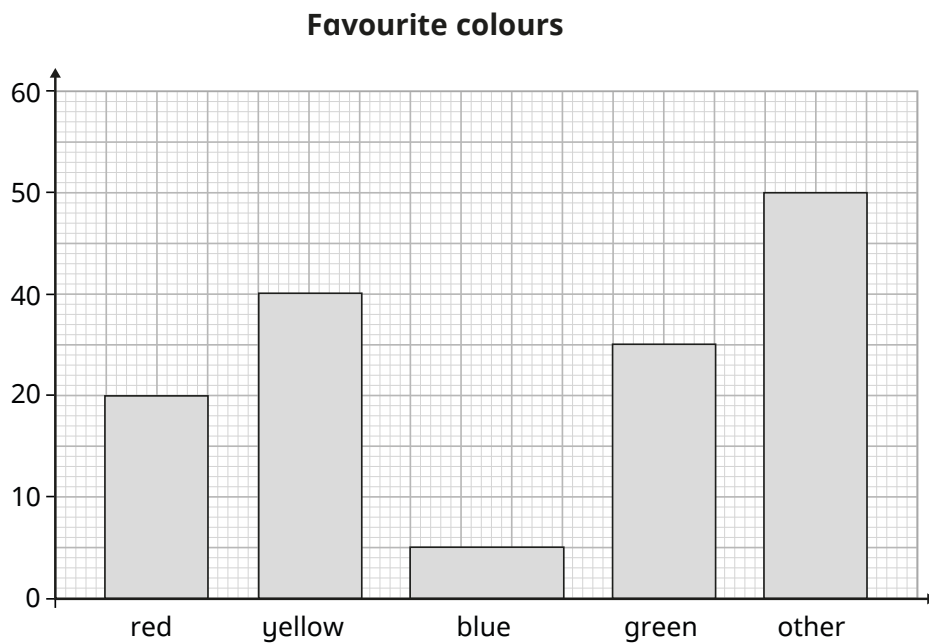
5, 11, 17, 23, 29 ...

Find an expression, in terms of  $n$ , for the  $n$ th term of the sequence.

\_\_\_\_\_

(2 marks)

**17** The bar chart shows information about some people's favourite colours.



Write two criticisms of the bar chart.

Criticism 1 \_\_\_\_\_

\_\_\_\_\_

Criticism 2 \_\_\_\_\_

\_\_\_\_\_

(2 marks)

**18** Mr Trent invests £5200 for 3 years in a savings account.

The savings account pays 1.8% per annum compound interest.

How much money does Mr Trent have in his savings account at the end of 3 years?

£ \_\_\_\_\_

(3 marks)

**19** The length,  $l$ , of a table top is 120 cm correct to the nearest centimetre.

Complete the error interval for  $l$ .

\_\_\_\_\_  $\leq l <$  \_\_\_\_\_

(2 marks)

**20** Write down the reciprocal of 5

\_\_\_\_\_

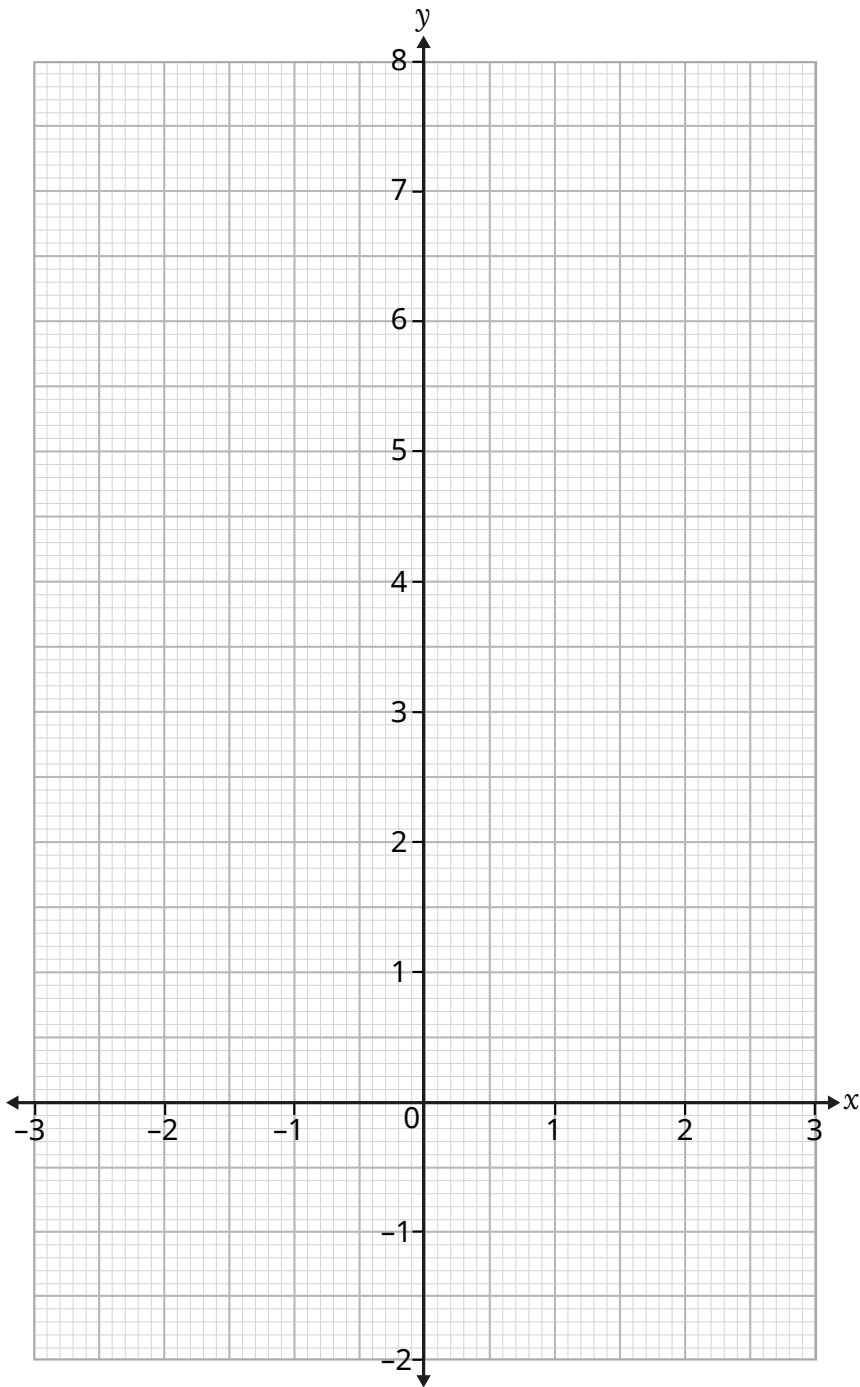
(1 mark)

**21 a)** Complete the table of values for  $y = x^2 - 1$

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

(2 marks)

**b)** On the grid, draw the graph of  $y = x^2 - 1$  for  $x = -3$  to  $x = 3$



(2 marks)

**22** A company employs 3 cleaners.

It takes the 3 cleaners 5 hours to clean the company's office building.

The company plans to hire another cleaner.

**a)** How long will it take to clean the office building with the additional cleaner?

\_\_\_\_\_

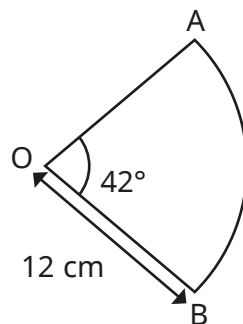
(2 marks)

**b)** What assumption have you made?

\_\_\_\_\_  
\_\_\_\_\_

(1 mark)

**23** OAB is a sector of a circle, centre O.



*diagram not  
drawn accurately*

The radius of the circle is 12 cm.

The angle of the sector is  $42^\circ$ .

Calculate the area of sector OAB, giving your answer correct to 3 significant figures.

\_\_\_\_\_  $\text{cm}^2$

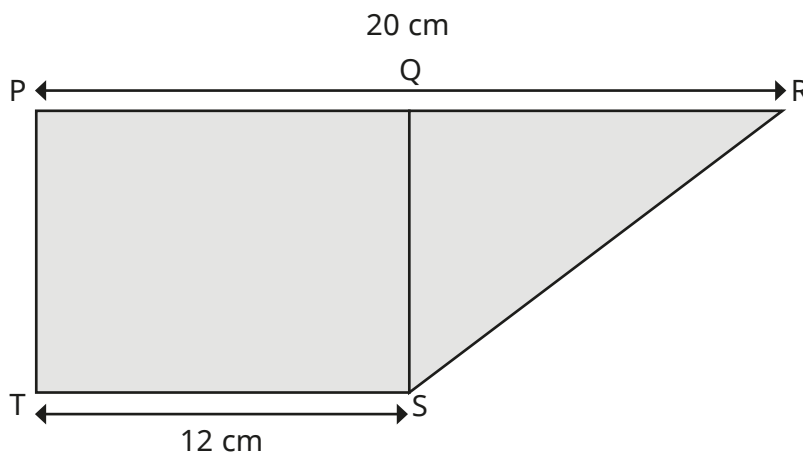
(2 marks)

- 24** Dr Singh sold his house for £156 750  
He lost 5% of the price he paid for the house.  
How much did Dr Singh pay for his house?

£ \_\_\_\_\_

(2 marks)

- 25** The diagram shows a right-angled triangle, QRS, joined to a rectangle, PQST.



*diagram not  
drawn accurately*

The area of the rectangle is 84 cm<sup>2</sup>  
Work out the area of the triangle.

\_\_\_\_\_ cm<sup>2</sup>

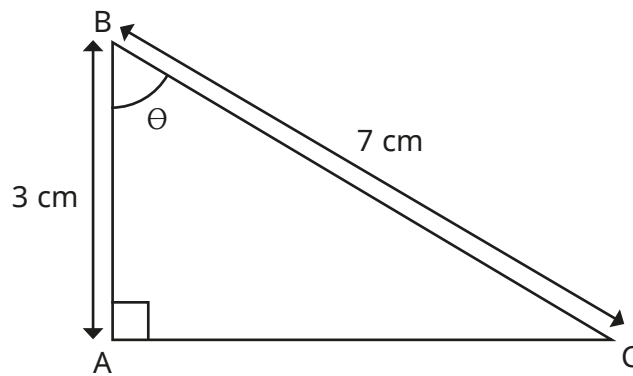
(3 marks)

**26** Solve  $x^2 + 3x - 10 = 0$

$x =$  \_\_\_\_\_ or  $x =$  \_\_\_\_\_

(2 marks)

**27** ABC is a right-angled triangle.



Calculate the size of angle  $\theta$ .

Give your answer correct to 1 decimal place.

\_\_\_\_\_°

(2 marks)

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