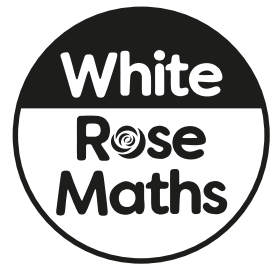


For: Pearson Edexcel GCSE (9–1)

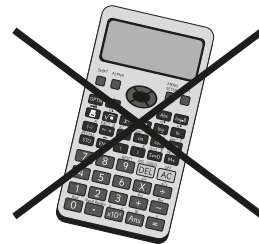
GCSE

Practice Paper 1MA1



Mathematics

Paper 1F (Non-Calculator) Foundation Tier



Surname

Other names

Set B

Written in accordance with advance information for November 2022

You should have:

A pen, pencil, ruler and an eraser.

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.
- Calculators may not be used.
- 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

1 Write 0.3 as a fraction.

(1 mark)

2 Write 1.03 metres in centimetres.

_____ cm

(1 mark)

3 Work out $19 - 2 \times 3$

(2 marks)

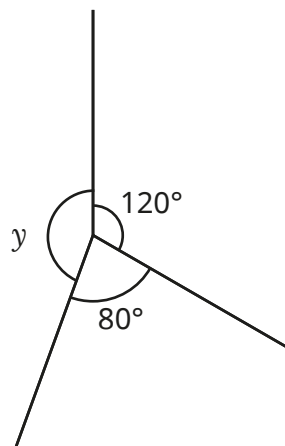
4 Write down all of the factors of 12

(2 marks)

5 Work out 3^4

(2 marks)

6 Work out the value of y .



*diagram not
drawn accurately*

$y =$ _____°

(2 marks)

7 The probability that a biased coin will land on heads is 0.6

Draw an arrow on the probability scale to show the probability of the coin landing on heads.



(1 mark)

8 a) Dora answered 20 questions in a test.

She answered 14 questions correctly.

What fraction of the questions did Dora answer correctly?

Give your answer in its simplest form.

(2 marks)

b) In a game, there are cards that show either odd or even numbers.

$\frac{1}{5}$ of the cards show odd numbers.

There are 120 cards that show even numbers.

Work out the total number of cards in the game.

(3 marks)

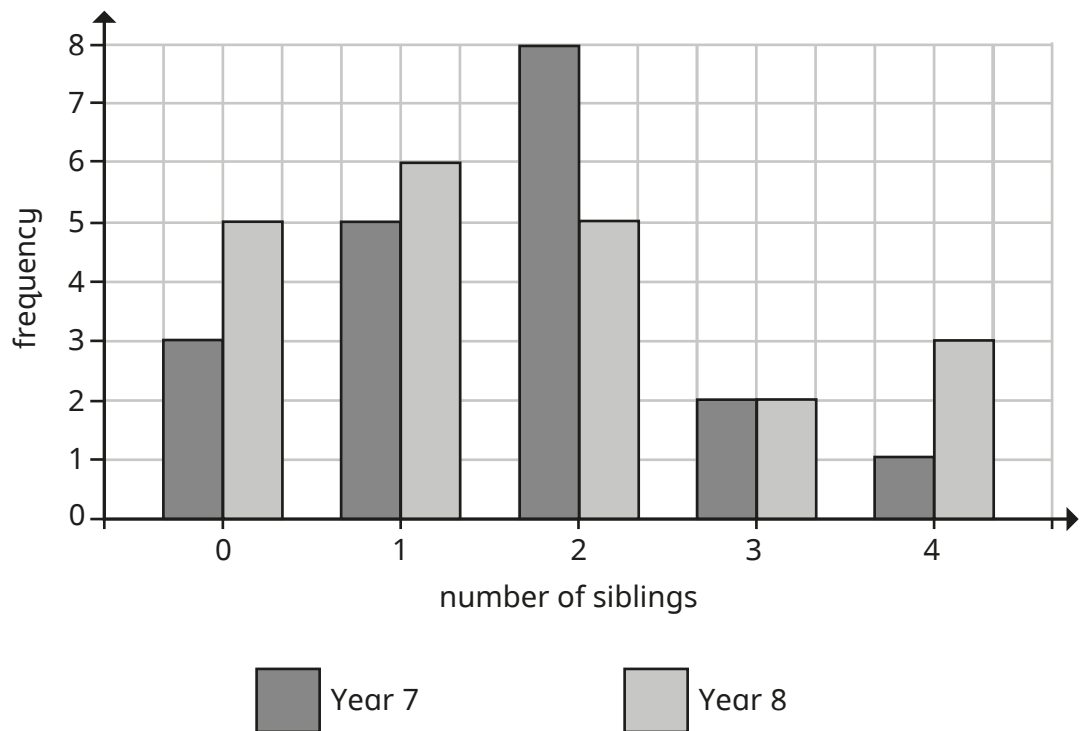
9 Huan buys 25 sweets from a shop.

He eats 7 sweets.

What percentage of the sweets did Huan eat?

%
(2 marks)

- 10** The bar chart shows information about the number of siblings of some Year 7 and Year 8 students.



- a)** How many Year 8 students have four siblings?

 (1 mark)

- b)** What is the modal number of siblings of the Year 7 students?

 (1 mark)

- c)** A student is selected at random.

What is the probability that the student is in Year 7?

 (2 marks)

- 11** A drone travels for 45 minutes at a constant speed of 40 mph.
How far does the drone travel?

_____ miles
(2 marks)

- 12** The diagram shows the location of two towns, A and B.
On the diagram, 1 cm represents 3 km.

A ×

B ×

Work out the actual distance between the two towns.

_____ km
(2 marks)

- 13** Dexter and Kim share £840 in the ratio 5 : 7

How much money does Dexter receive?

£ _____

(3 marks)

- 14** A shop sells the same brand of shampoo in two different sizes.



Which bottle offers the best value for money?

You must show your working.

(3 marks)

15 a) Solve $2x - 9 \leq -5$

(2 marks)

b) Solve $2(x + 5) = 24$

(2 marks)

- 16** An electrician charges £15 per hour plus a £45 call-out charge for a job.
The electrician charges a customer £120 for a job.
How long did the job take?

_____ hours

(3 marks)

- 17** A headteacher asks 15 students in her school if they like school dinners.
7 students say "yes".
There are 750 students in the school.
Estimate how many of the students like school dinners.

(2 marks)

18 Work out the calculations.

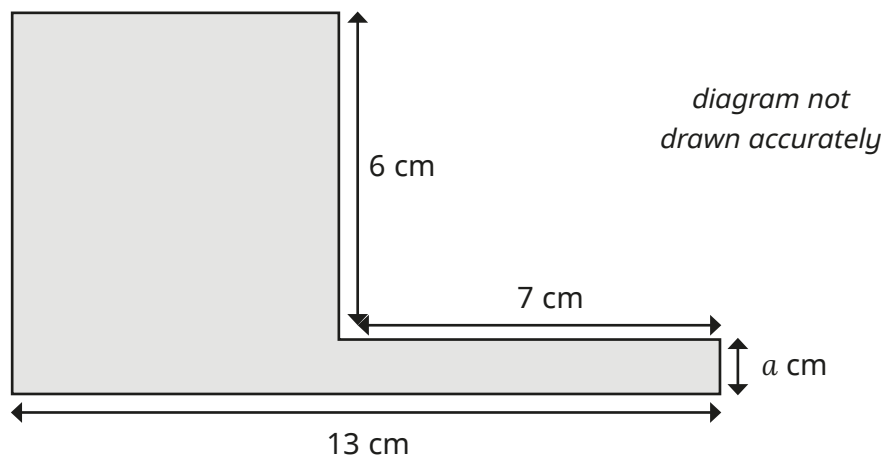
a) $\frac{2}{5} + \frac{1}{12}$

(2 marks)

b) $\frac{3}{5} \times \frac{10}{11}$

(2 marks)

- 19** The shape is made from two rectangles.



The perimeter of the shape is 42 cm.
Work out the value of a .

(3 marks)

- 20** Write 48 as a product of its prime factors.

(2 marks)

21 A bag contains only yellow and blue counters.

There are 3 times as many yellow counters as blue counters.

a) Write down the ratio of yellow counters to blue counters.

(1 mark)

There are 32 **more** yellow counters than blue counters in the bag.

b) How many counters are there in the bag?

(2 marks)

22 A box of pencils costs £3.24

Work out the total cost of 16 boxes of pencils.

£ _____

(3 marks)

23 y is directly proportional to x .

$$y = 27 \text{ when } x = 6$$

Find the value of y when $x = 10$

(3 marks)

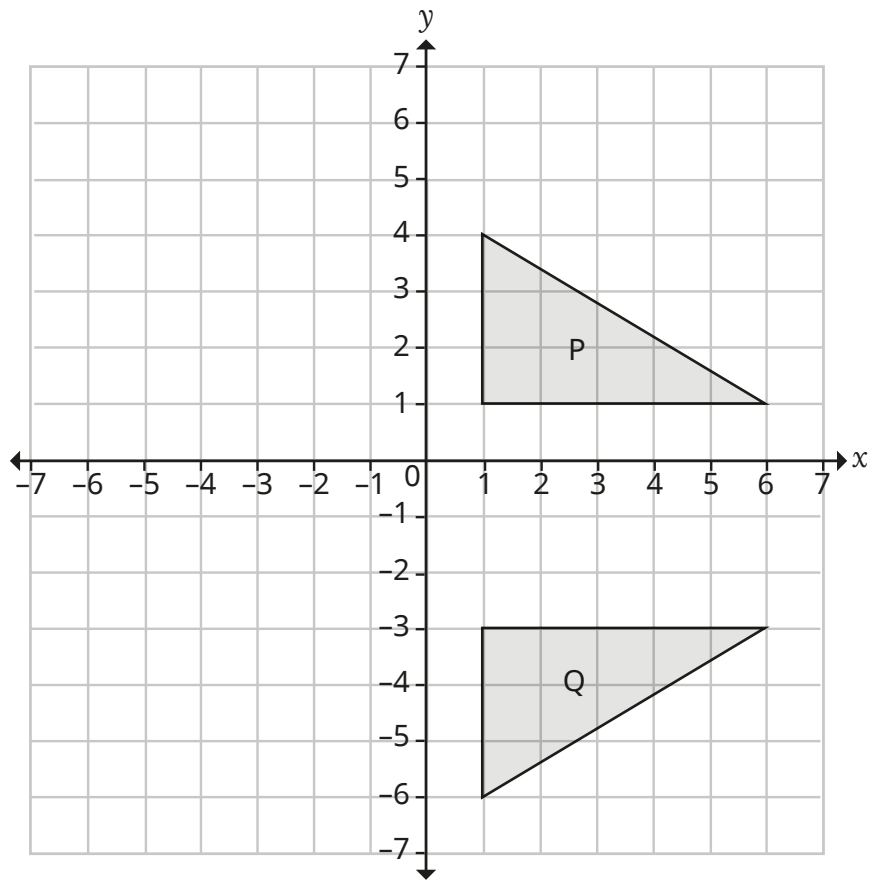
24 a) Simplify $3n^2 + 5n^2$

(1 mark)

b) Simplify $(2n^5)^3$

(2 marks)

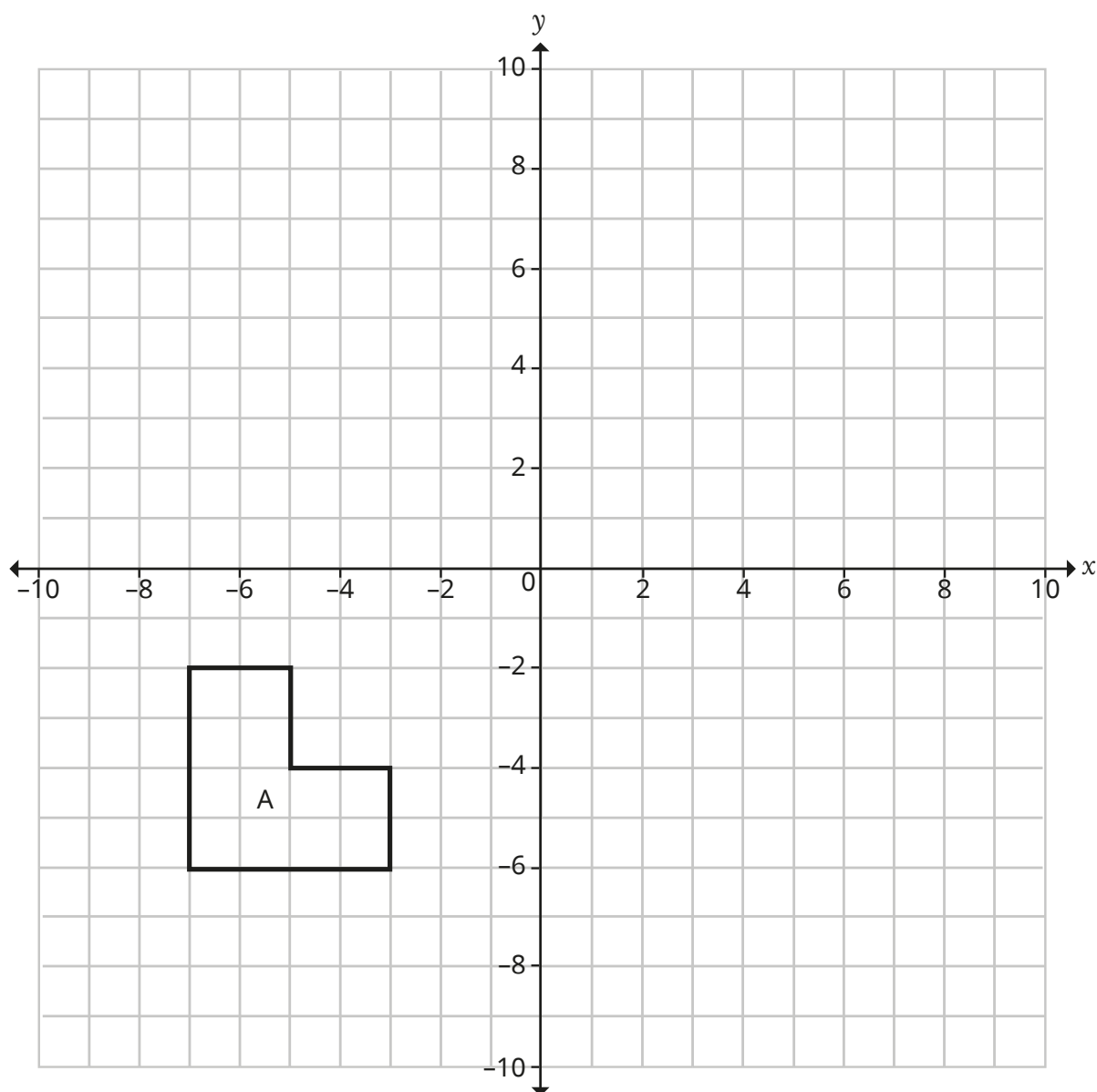
25 Triangles P and Q are drawn on the grid.



a) Describe fully the single transformation that maps shape P onto shape Q.

(2 marks)

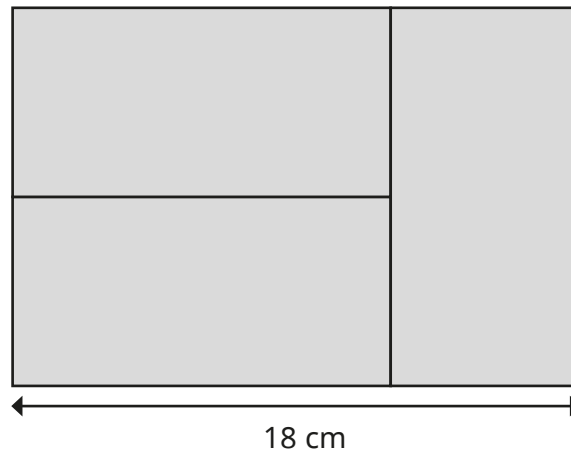
Shape A is drawn on the grid.



b) Enlarge shape A by scale factor 2, centre $(-9, -8)$.

(2 marks)

26 The diagram shows three congruent rectangles.



The total length of the diagram is 18 cm.

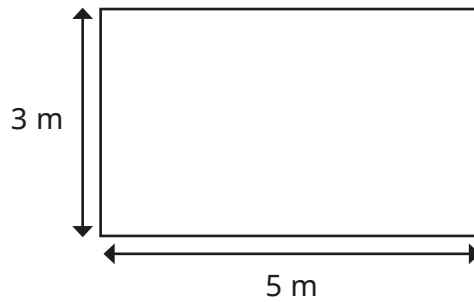
Work out the area of **one** of the rectangles.

(3 marks)

27 Factorise $x^2 - 8x + 15$

(2 marks)

28 The plan of a room is shown.



Mr Rose wants to lay carpet down in the room.

The carpet costs £18 per m^2

The shop is offering a 20% discount on all orders.

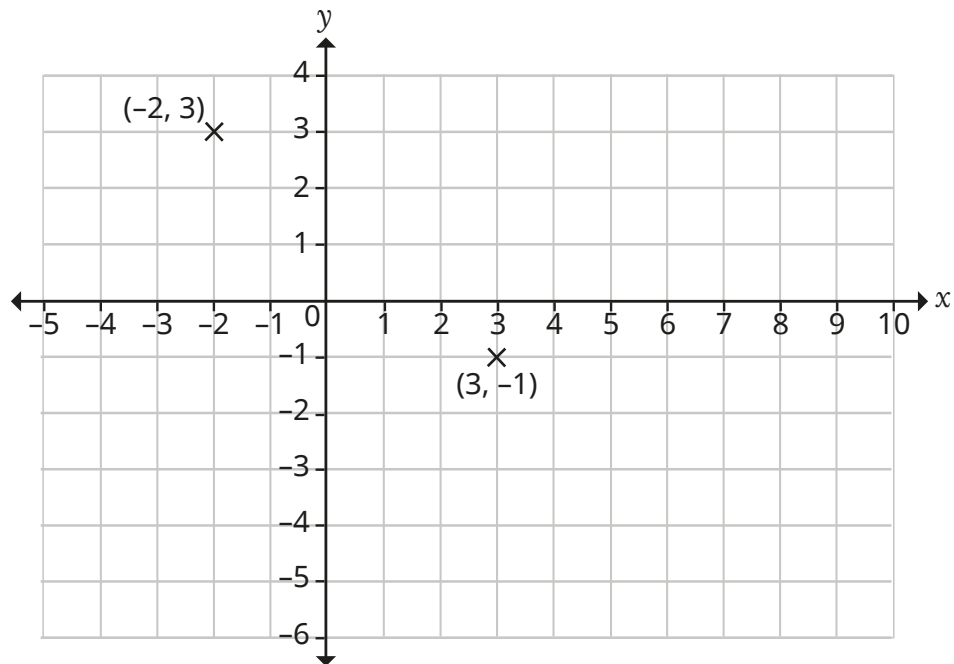
Mr Rose has £200

Does Mr Rose have enough money to buy the carpet for the room?

You must show all your working.

(5 marks)

29 The points $(-2, 3)$ and $(3, -1)$ are shown on the grid.



The point $(3, -1)$ is the midpoint of the line segment that joins the point $(-2, 3)$ to point P.

Work out the coordinates of point P.

(2 marks)

30 The formula to calculate pressure is shown.

$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

A box exerts a force of 180 N on a table.

The pressure on the table is 120 N/m²

Calculate the area of the box that is in contact with the table.

_____ m²
(2 marks)

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