

Please write clearly, in block capitals.

Centre number

Candidate number

Surname _____

Forename(s) _____

Candidate signature _____

OXFORD AQA INTERNATIONAL GCSE

MATHEMATICS CORE

PAPER 1C (9260/1C)

Specimen 2018

Morning

Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:

- a calculator
- mathematical instruments.



Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the space provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work that you do not want to be marked.
- In all calculations, show clearly how you work out your answer.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80
- You may ask for more answer paper, graph paper and tracing paper. These must be tagged securely to this answer booklet.

Answer **all** questions in the spaces provided.

1 How many grams are there in 2.5 kilograms?

Circle your answer.

[1 mark]

0.0025

250

2005

2500

2 Here are seven numbers.

13

6

12

7

6

4

8

2 (a) Work out the range of the seven numbers.

Circle your answer.

[1 mark]

5

6

7

8

9

2 (b) What is the mode of the seven numbers?

Circle your answer.

[1 mark]

5

6

7

8

9

- 3 Circle the percentage that is more than $\frac{1}{4}$ and less than $\frac{1}{2}$

[1 mark]

15%

20%

35%

55%

60%

- 4 The numbers 1 to 12 are to be put in a grid.
The positions of 2, 3, 6, 7, 8 and 12 are shown.

| | | | |
|----|--|---|---|
| 2 | | | 8 |
| 12 | | | |
| 6 | | | |
| | | 3 | 7 |

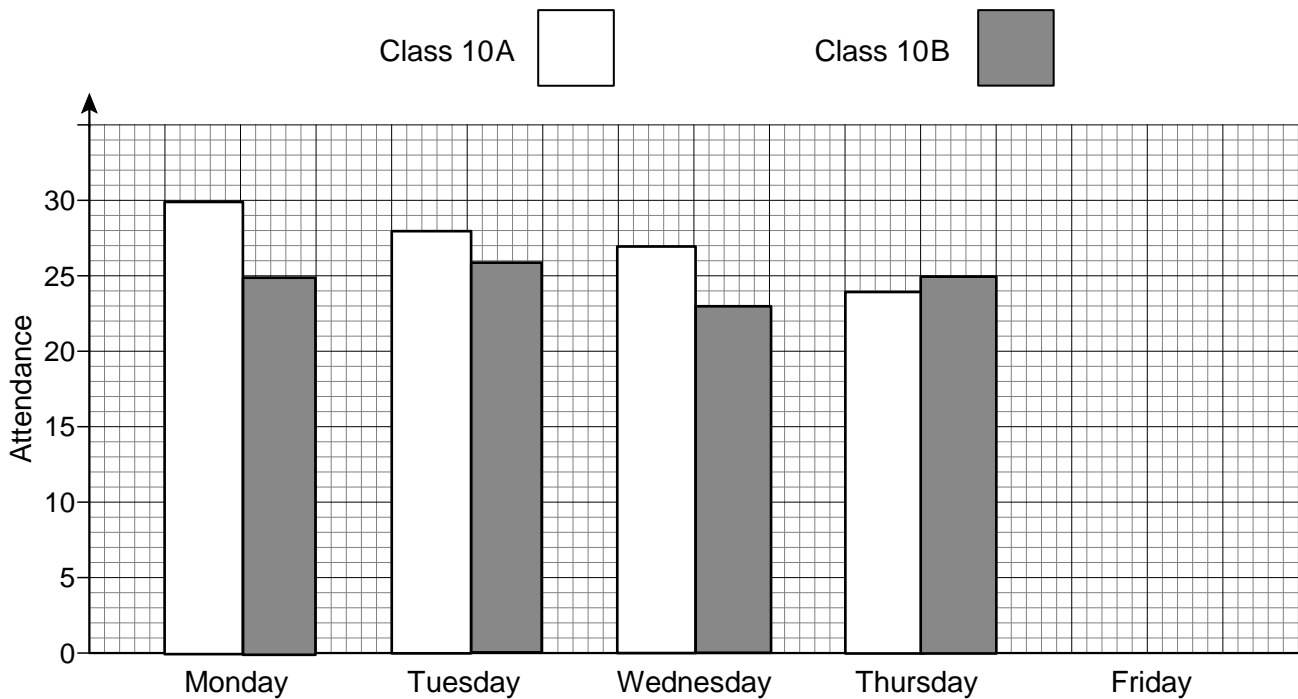
Each of the four sides of the grid must add up to 25

Complete the grid using the numbers

1, 4, 5, 9, 10 and 11

[3 marks]

- 5 The attendance of classes 10A and 10B for four days is shown.



- 5 (a) How many students from class 10A attended school on **Tuesday**?

[1 mark]

Answer _____

- 5 (b) On which of the four days was the total attendance of classes 10A and 10B the highest?

[1 mark]

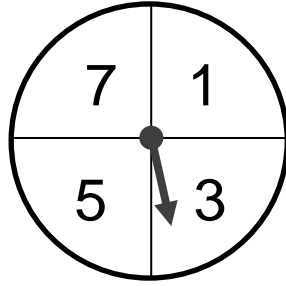
Answer _____

- 5 (c) On Friday the total attendance of classes 10A and 10B was 43
Three more students attended in class 10B than in class 10A.

Complete the bar chart for Friday.

[3 marks]

6 (a) Here is a fair spinner.



Circle the word that describes the chance of the spinner landing on an **odd** number.

[1 mark]

impossible

unlikely

evens

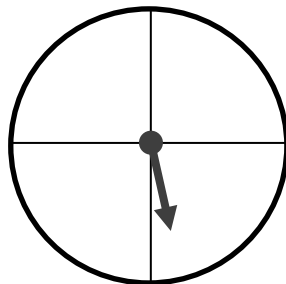
likely

certain

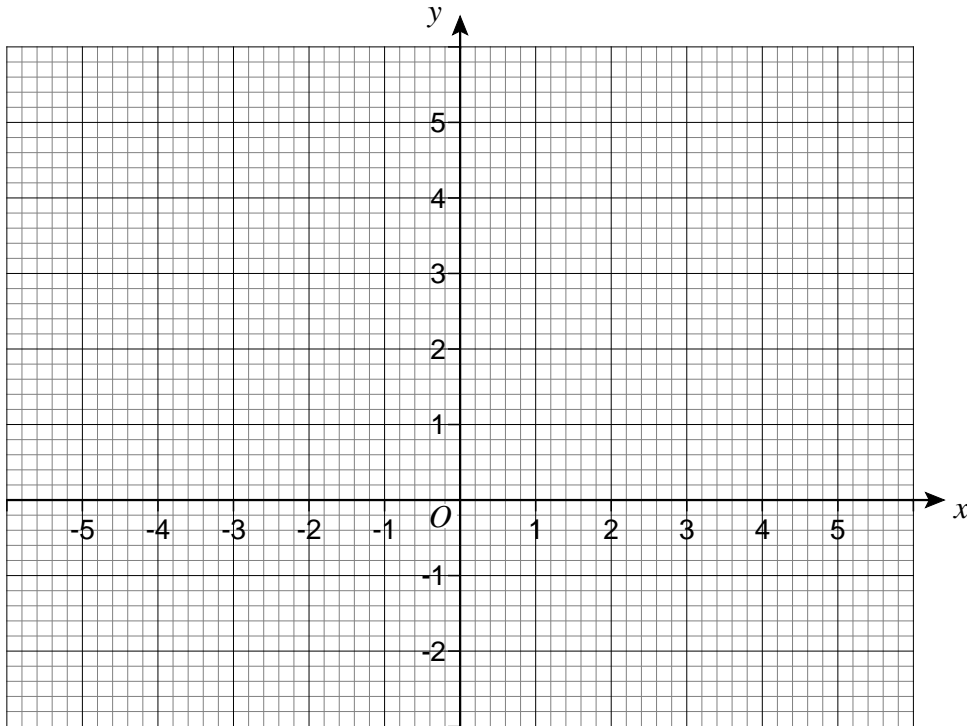
6 (b) Put the numbers on this fair spinner so that

- It is impossible to land on an odd number
- It is likely to land on a multiple of 10

[2 marks]



- 7 The points $(-1, 0)$ and $(1, 4)$ are the diagonally opposite corners of a square.



Work out the coordinates of the other two corners of the square.

[2 marks]

Answer (_____ , _____) and (_____ , _____)

8 156 men and 180 women were asked if they drive to work.

$\frac{1}{3}$ of the men said yes.

$\frac{1}{4}$ of the women said yes.

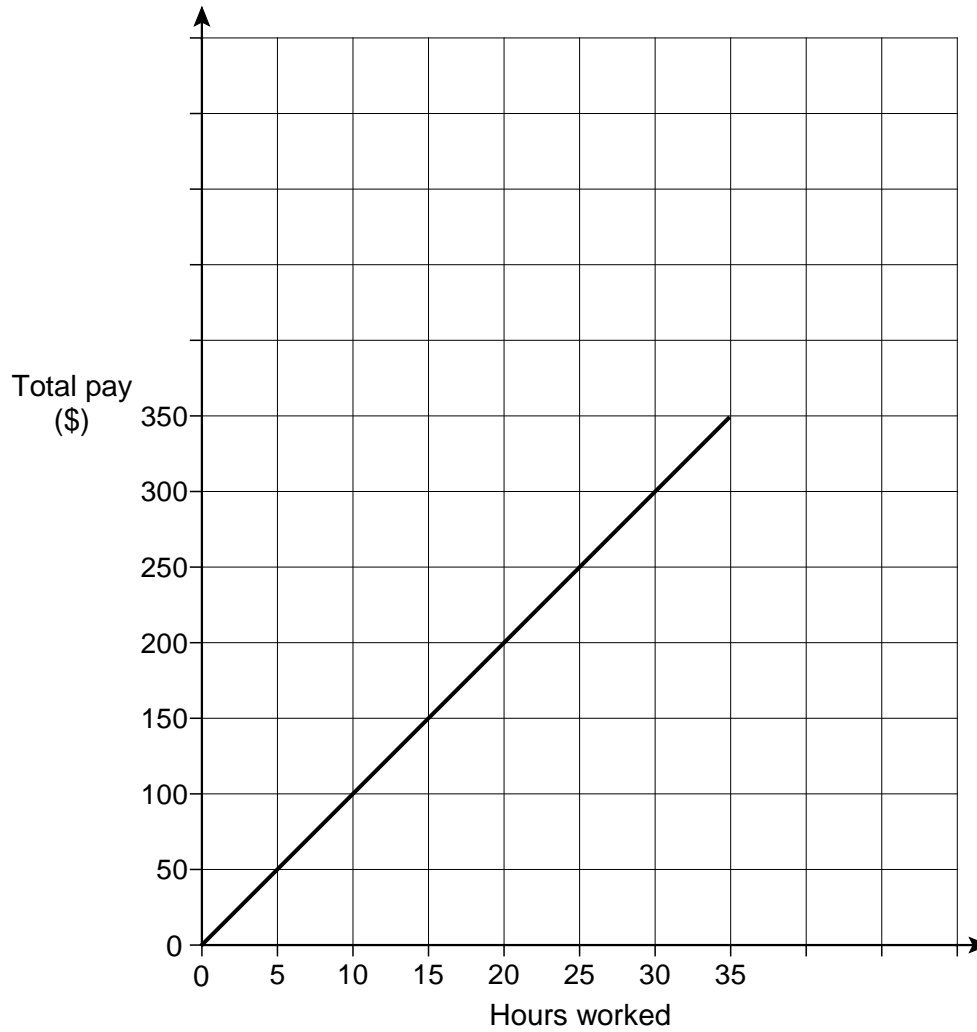
What fraction of the people said yes?

[4 marks]

Answer _____

Turn over for the next question

- 9 The graph shows the total pay (\$), that Fatima receives for up to 35 hours worked.



- 9 (a) How much is her total pay if she works 35 hours?

[1 mark]

Answer \$ _____

- 9 (b) How much is she paid per hour?

[1 mark]

Answer \$ _____

9 (c) She is paid \$20 per hour for each hour she works above 35 hours.

Continue the graph up to 45 hours worked.

You **must** complete the scales on the axes.

[4 marks]

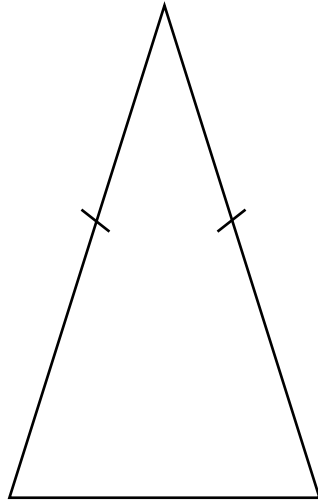
Turn over for the next question

10

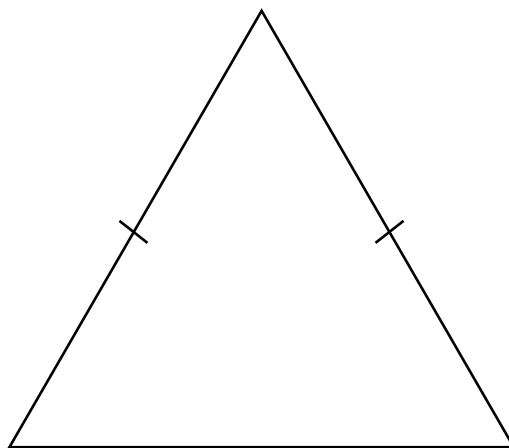
An angle in an isosceles triangle is 74°

Fill in three angles on each triangle below to show the **two** possible isosceles triangles.

[3 marks]



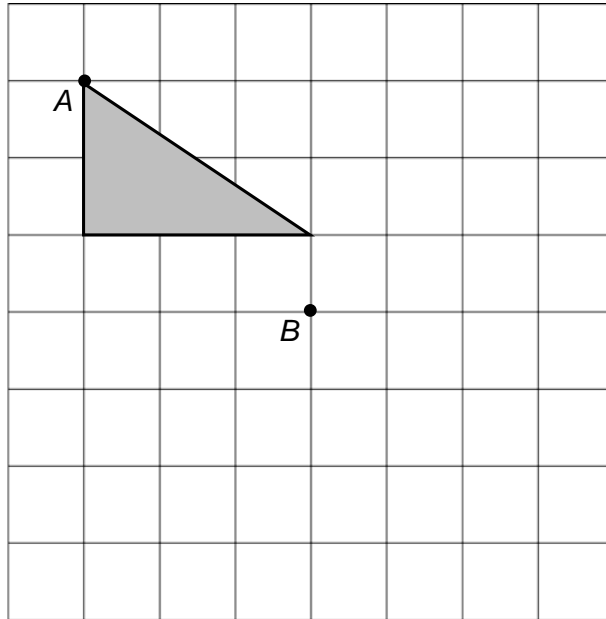
Not drawn
accurately



Not drawn
accurately

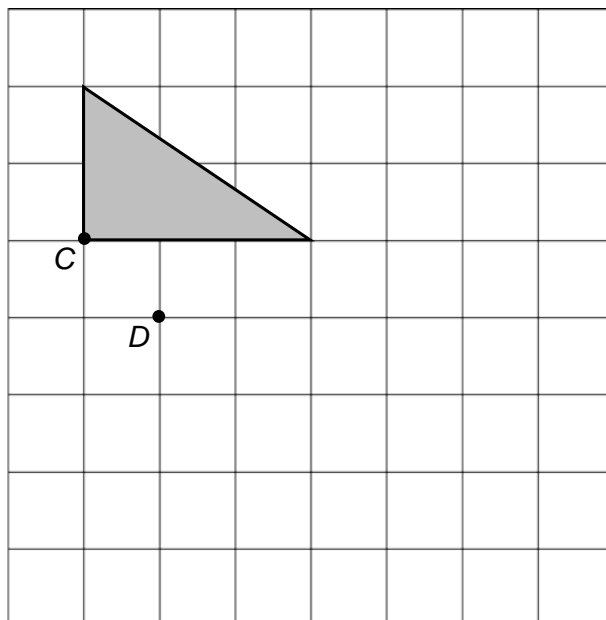
- 11 (a) Translate the triangle so that point *A* moves to point *B*.

[1 mark]



- 11 (b) Rotate the triangle **90° clockwise** so that point *C* moves to point *D*.

[2 marks]



- 12 There are 30 passengers on a bus.
13 of them are **male**.

At the next stop 8 people get off the bus and nobody gets on.

The probability that a passenger, picked at random, is **male** is now $\frac{1}{2}$

How many **females** got off the bus?

[3 marks]

Answer _____

- 13 You are given that $p = m + 5$

Which **one** of the following is true?

Circle your answer.

[1 mark]

$$m = p + 5$$

$$m + p = 5$$

$$m = 5 - p$$

$$m = p - 5$$

- 14 Circle the expression equivalent to $x^3 + 6x$

[1 mark]

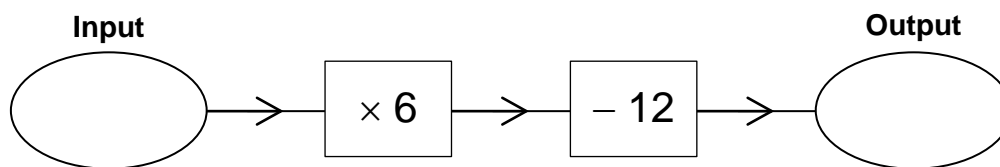
$$x(x + 6)$$

$$x^2(x + 6)$$

$$x(x^2 + 6)$$

$$x(x^2 + 6x)$$

15 Here is a number machine.



15 (a) What is the output when the input is 5?

[1 mark]

Answer _____

15 (b) What is the input when the output is 0?

[1 mark]

Answer _____

15 (c) The output number equals the input number.

Work out the input number.

[2 marks]

Answer _____

16 The table shows information about journeys A and B.

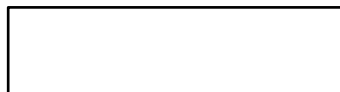
Complete the table.

[2 marks]

| | Distance travelled | Time taken | Average speed |
|----------|--------------------|-------------------|---------------|
| A | 32 miles | | 64 mph |
| B | | 1 hour 20 minutes | 42 mph |

17 This rectangle has an area of 48 cm^2

The perimeter is 32 cm



Not drawn accurately

Two of the rectangles are put together.



Not drawn accurately

Work out the perimeter of the new shape.

You **must** show your working.

[4 marks]

Answer _____ cm

- 18** An ordinary six-sided dice is rolled 300 times.
It lands on five 120 times.



Do you think the dice is fair?
Give a reason for your answer.

[2 marks]

- 19** Circle the equation with roots 4 and -8

[1 mark]

$$4x(x - 8) = 0$$

$$(x - 4)(x + 8) = 0$$

$$x^2 - 32 = 0$$

$$(x + 4)(x - 8) = 0$$

20 Solve $5(x + 4) = 3(x + 7) + 2$

[4 marks]

$x =$ _____

21 Written as the product of its prime factors $672 = 2^5 \times 3 \times 7$

21 (a) Write 252 as the product of its prime factors.

[2 marks]

Answer _____

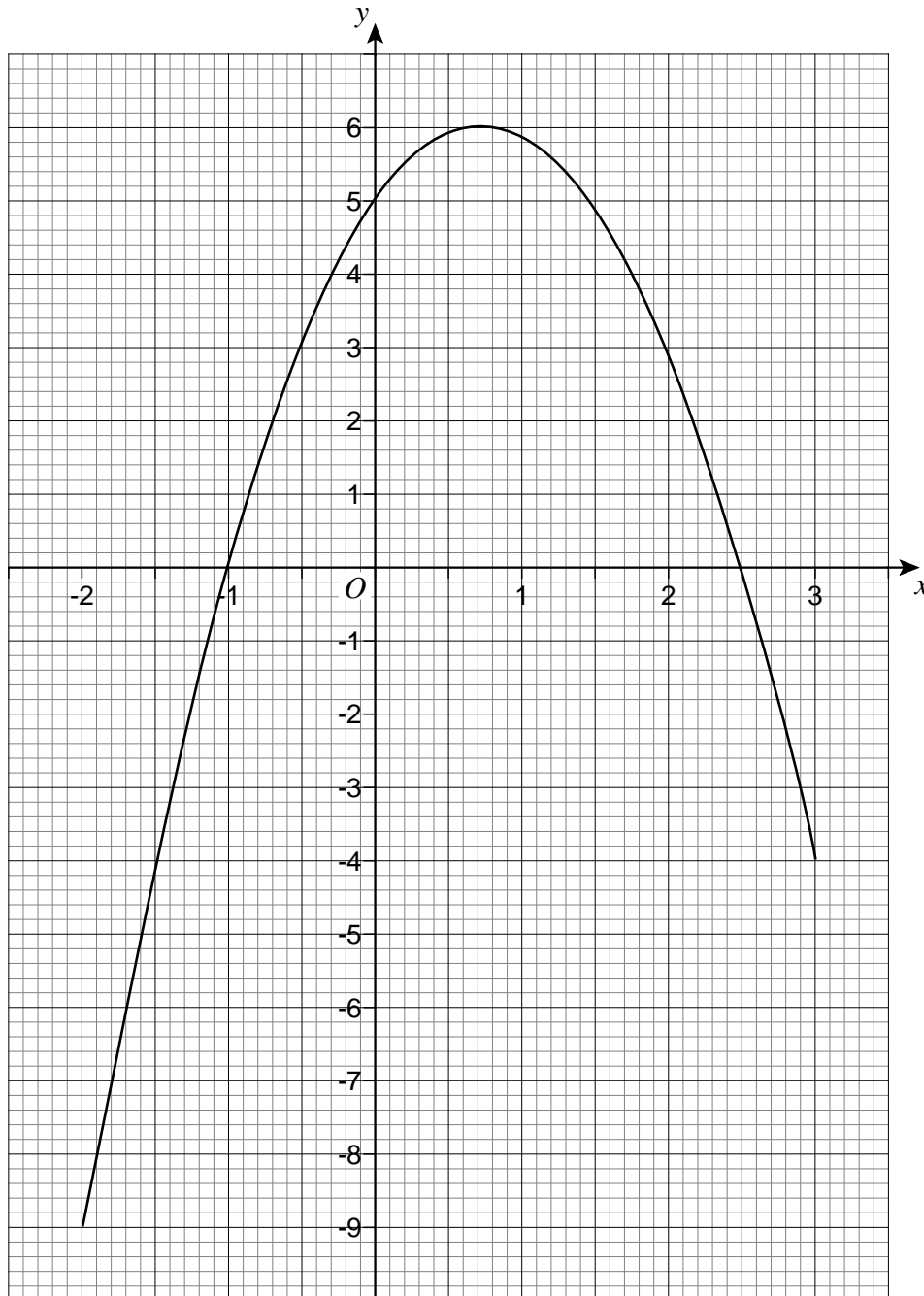
21 (b) Work out the value of the highest common factor of 672 and 252

[1 mark]

Answer _____

22

The graph of $y = 5 + 3x - 2x^2$ is shown for values of x from -2 to 3

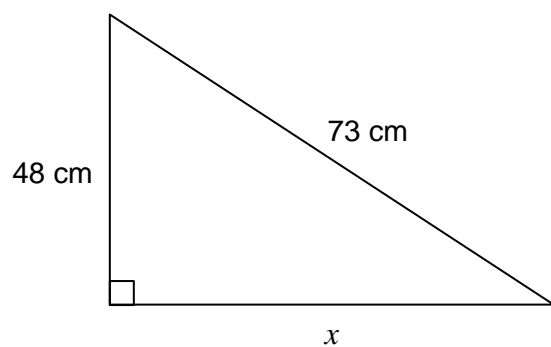


Write down the solutions of $5 + 3x - 2x^2 = 0$

[2 marks]

Answer _____ and _____

23

Calculate the length x .You **must** show your working.Not drawn
accurately**[3 marks]**

Answer _____ cm

Turn over for the next question**Turn over ▶**

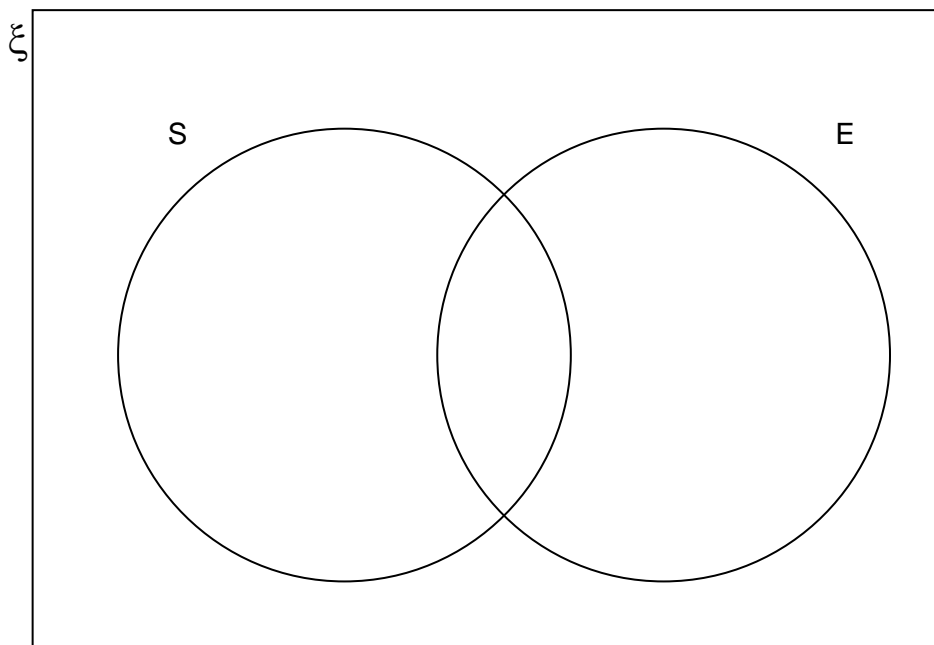
24 $\xi = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12\}$

S = square numbers

E = even numbers

24 (a) Complete the Venn diagram.

[3 marks]



24 (b) One of the numbers is chosen at random.

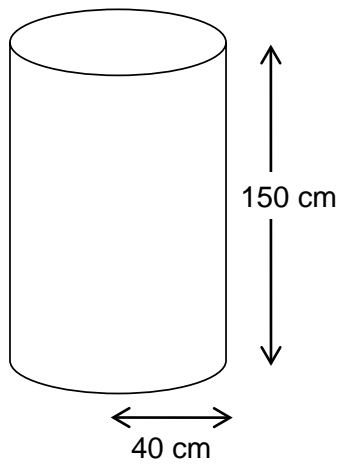
Write down $P(S \cap E)$

[1 mark]

Answer _____

25

A water tank is a cylinder with radius 40 cm and depth 150 cm



Not drawn
accurately

It is filled at the rate of 0.2 litres per second.

1 litre = 1000 cm³

Does it take longer than 1 hour to fill the tank?

You **must** show your working.

[4 marks]

Answer _____

26 (a) Use your calculator to work out $19.42^2 - \sqrt[3]{1006} \div 4.95$

Write down your full calculator display.

[1 mark]

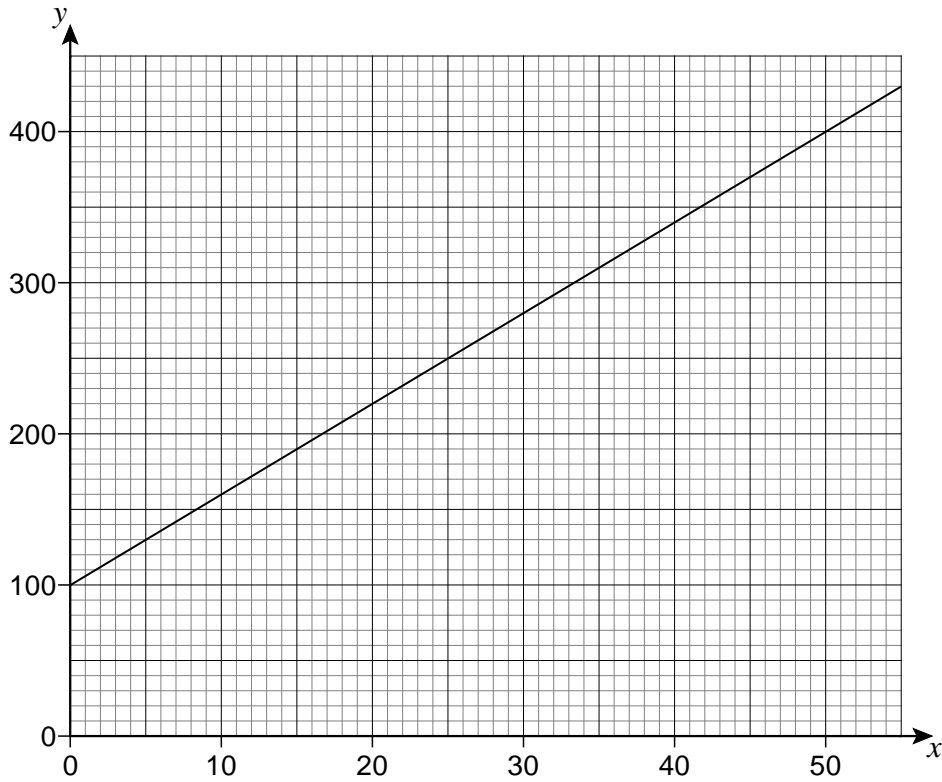
Answer _____

26 (b) Use approximations to check your answer to part (a) is sensible.

You **must** show your working.

[2 marks]

27 The graph shows the line $y = ax + b$



Work out the values of a and b .

[2 marks]

$a =$ _____

$b =$ _____

- 28** White paint costs \$2.80 per litre.
Blue paint costs \$3.50 per litre.
White paint and blue paint are mixed in the ratio 3 : 2

Work out the cost of 20 litres of the mixture.

[4 marks]

Answer \$ _____

END OF QUESTIONS.

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