

Please write clearly, in block capitals.

Centre number 

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Candidate number 

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Surname \_\_\_\_\_

Forename(s) \_\_\_\_\_

Candidate signature \_\_\_\_\_

# OXFORD AQA INTERNATIONAL GCSE MATHEMATICS CORE

PAPER 2C (9260/2C)

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 bottom 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 Simplify  $5a - 2a + 6$

Circle your answer.

[1 mark]

$3a + 6$

$9a$

$7a + 6$

$3a - 6$

2 Which of these can be written as  $\frac{a}{b}$  ?

Circle your answer.

[1 mark]

$b \div a$

$a - b$

$a \div b$

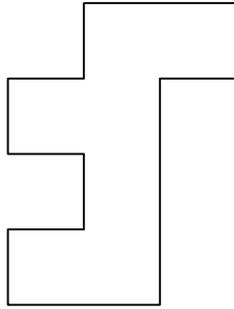
$b - a$

3 Which shape is congruent to shape X?

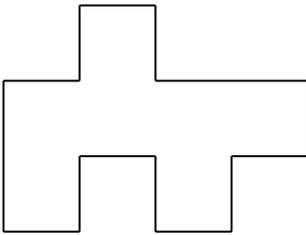
Circle the correct letter

[1 mark]

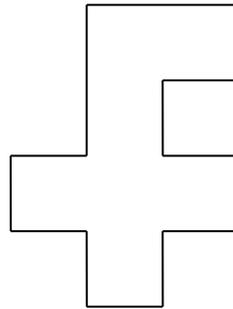
X



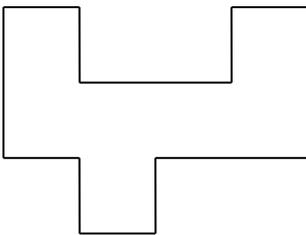
A



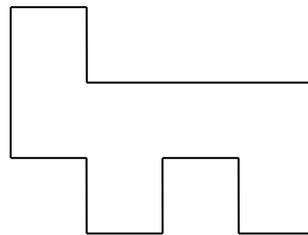
B



C



D



- 4** Which of these is a cube number?  
Circle your answer.

[1 mark]

3

9

27

100

- 5 (a)** Solve  $w - 11 = 24$

[1 mark]

$w =$  \_\_\_\_\_

- 5 (b)** Write an expression for the total cost, in dollars, of  
 $x$  jumpers at \$15 each  
and  
 $y$  shirts at \$12 each.

[2 marks]

Answer \_\_\_\_\_

- 5 (c)** Simplify  $x + x + y \times y$

[2 marks]

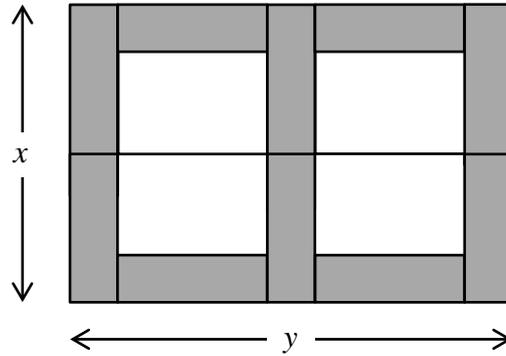
Answer \_\_\_\_\_

- 6 Two sizes of rectangular slab are shown.



Not drawn accurately

- 10 small slabs and 4 large slabs make this pattern.



Not drawn accurately

- 6 (a) Work out the value of  $x$ .

[2 marks]

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Answer \_\_\_\_\_ cm

- 6 (b) Show that the value of  $y$  is 126 cm

[2 marks]

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- 6 (c) Work out the length and width of a large slab.

[2 marks]

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Length = \_\_\_\_\_ cm

Width = \_\_\_\_\_ cm

Turn over ►

7 Liz buys a car for \$7500

She pays a deposit of \$1875

She pays the rest in 36 equal monthly payments.

Work out the amount of each monthly payment.

**[3 marks]**

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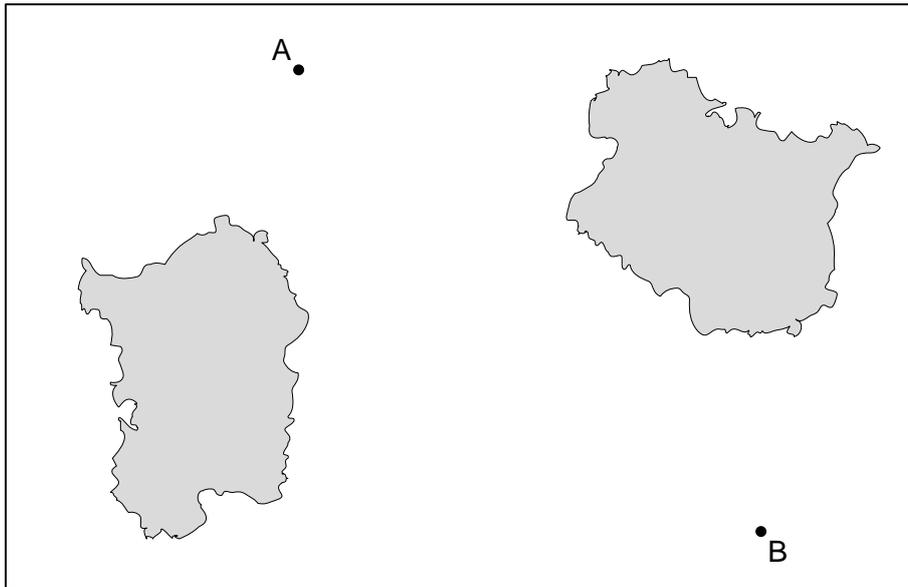
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Answer \$ \_\_\_\_\_

- 8 The map shows the positions of two ships, A and B.

**Scale:** 1 cm represents 2.5 km



Work out the actual distance between the ships.

**[2 marks]**

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Answer \_\_\_\_\_ km

**Turn over for the next question**

- 9** Alice makes cards.  
Each card uses 42 cm of ribbon.  
She has 1000 cm of ribbon.

**9 (a)** Work out the **maximum** number of cards she can make.

**[2 marks]**

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Answer \_\_\_\_\_

**9 (b)** How much ribbon will be left over?

**[1 mark]**

---

Answer \_\_\_\_\_ cm

10

**Jamie**

My height is 176 centimetres.  
My weight is 138 pounds.

Jamie has an application form for a gym.

Complete the application form.

Use 1 kilogram = 2.2 pounds

**[3 marks]**

**Name**    Jamie Jones

**Height**    ..... metres

**Weight**    ..... kilograms (to nearest kg)

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**Turn over for the next question**

**Turn over ▶**

11 (a)



How many DVDs do you get for \$35?

[3 marks]

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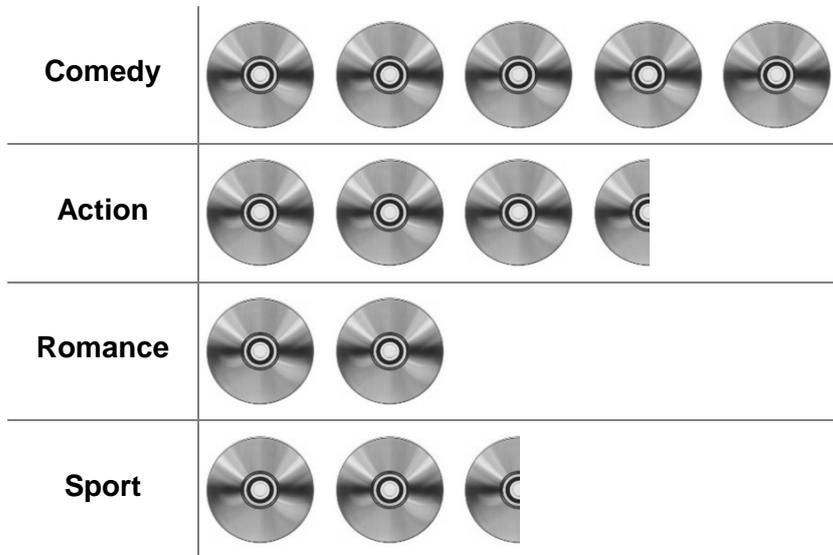
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Answer \_\_\_\_\_

- 11 (b)** The pictogram shows some information about DVDs.  
The key is missing.



The total number of DVDs is 260

Work out the number of **Sport** DVDs.

**[4 marks]**

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Answer \_\_\_\_\_

12 The mass of  $40 \text{ cm}^3$  of copper is 354 grams.

Work out the mass of  $100 \text{ cm}^3$  of copper.

[2 marks]

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Answer \_\_\_\_\_ grams

13 You are given that

$$a = 3 \text{ and } b = 5$$

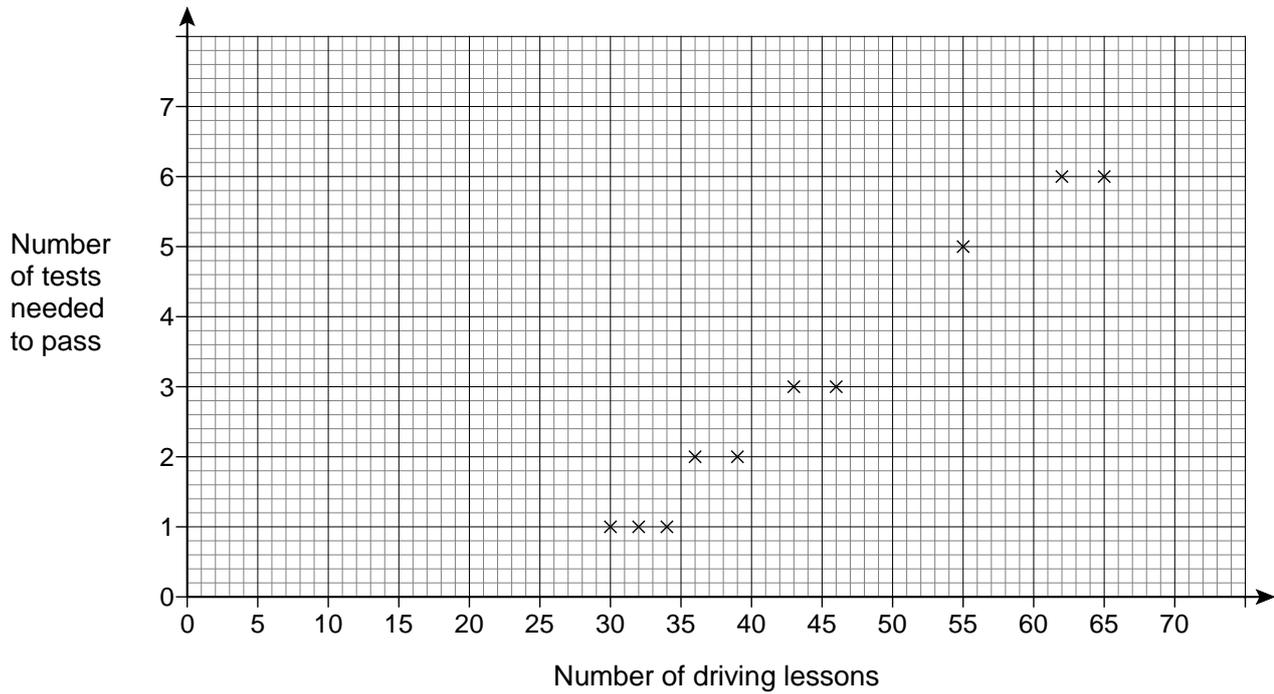
Tick whether each statement is true or false.

Give a reason for each answer.

[2 marks]

Statement	True	False	Reason
$ab = 35$			
$2b^2 = 100$			

- 14** The scatter graph shows the number of driving lessons and the number of tests needed to pass by 10 people.



- 14 (a)** What proportion of the 10 people passed on their first test?

[1 mark]

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Answer \_\_\_\_\_

- 14 (b)** Describe the correlation.

Circle your answer.

[1 mark]

strong positive

weak positive

weak negative

strong negative

- 14 (c)** Use a line of best fit to estimate the number of tests needed to pass by a person who has 50 lessons.

**[2 marks]**

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Answer \_\_\_\_\_

- 14 (d)** Meera says,

“I can use the trend to predict the number of driving tests needed to pass for any number of driving lessons.”

Comment on her statement.

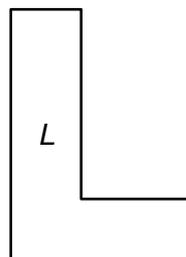
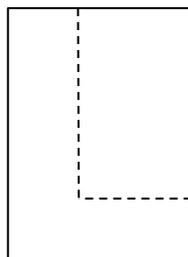
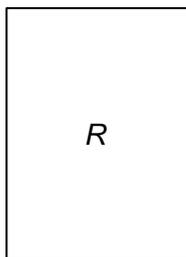
**[1 mark]**

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15

Shape  $R$  is a rectangle.A smaller rectangle is cut from  $R$  to form shape  $L$ .Not drawn  
accuratelyWhich **one** of these statements is true?

Tick a box.

The perimeter of  $R$  is **longer than** the perimeter of  $L$ The perimeter of  $R$  is the **same as** the perimeter of  $L$ The perimeter of  $R$  is **shorter than** the perimeter of  $L$ 

It is not possible to tell which perimeter is longer

[1 mark]

- 16** A company has bikes for hire.  
The usual cost, \$ $C$ , to hire a bike for  $n$  days is given by the formula

$$C = 12 + \frac{27}{4}(n - 1)$$

- 16 (a)** Work out the cost to hire a bike for 1 day.

**[1 mark]**

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Answer \$ \_\_\_\_\_

- 16 (b)**

**Special offer**  
Hire a bike for 7 days for \$45

How much money do you save using the special offer compared to the usual cost for 7 days?

**[2 marks]**

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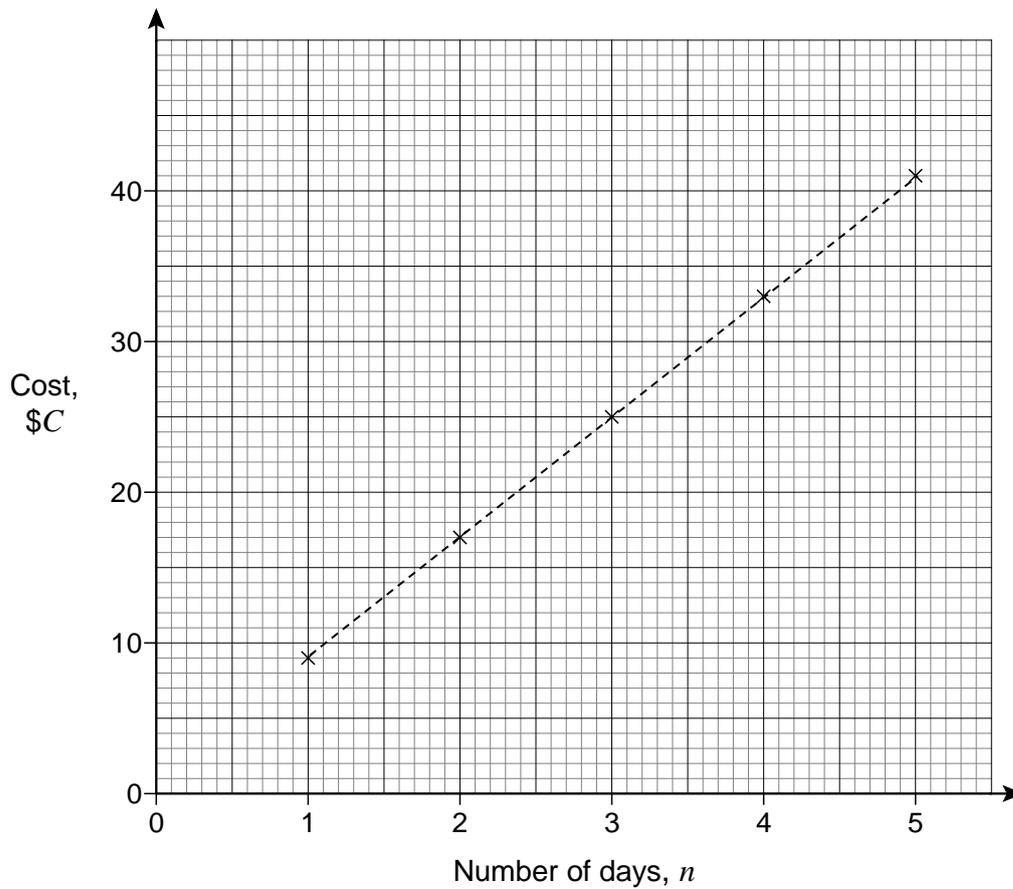
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- 16 (c) The graph shows the cost to hire a bike for one to five days at a different company.



The cost,  $\$C$ , to hire a bike for  $n$  days using this company is given by the formula

$$C = a + b(n - 1)$$

Work out the values of  $a$  and  $b$ .

[3 marks]

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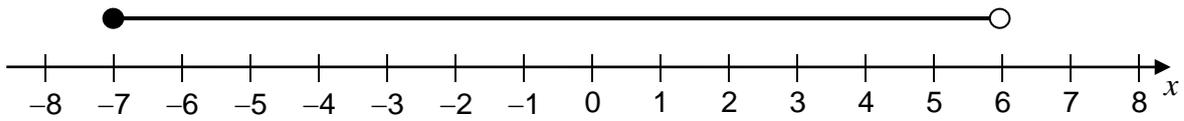


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$$a = \underline{\hspace{2cm}} \qquad b = \underline{\hspace{2cm}}$$

- 17 Circle the inequality shown by the diagram.

[1 mark]



$$-7 < x < 6$$

$$-7 \leq x < 6$$

$$-7 < x \leq 6$$

$$-7 \leq x \leq 6$$

- 18 A menu has a choice of 3 starters, 5 main courses and 4 desserts.

How many different choices of a 3-course meal are possible?

Circle your answer.

[1 mark]

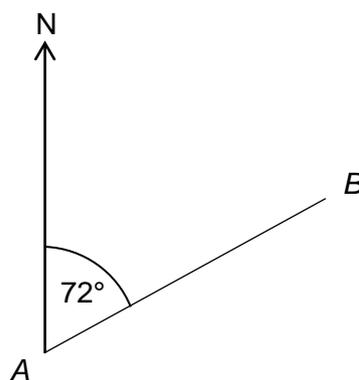
12

23

60

972

- 19 The bearing of  $B$  from  $A$  is  $072^\circ$



Not drawn  
accurately

Circle the bearing of  $A$  from  $B$ .

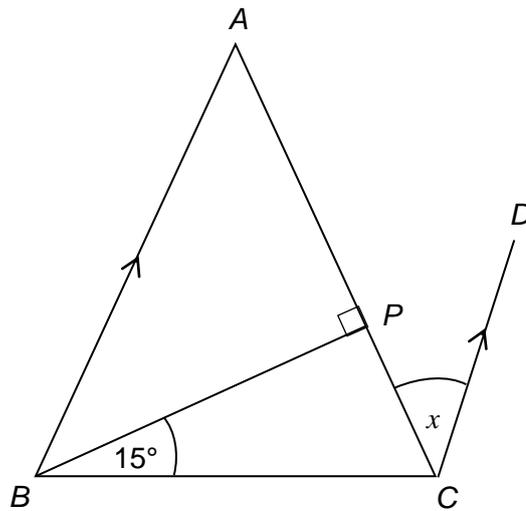
[1 mark]

 $108^\circ$  $172^\circ$  $252^\circ$  $288^\circ$

20

$ABC$  is a triangle with  $AB = AC$

$BA$  is parallel to  $CD$ .



Not drawn  
accurately

Show that angle  $x = 30^\circ$

[3 marks]

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21

Write 2500 000 in standard form.

[1 mark]

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Answer \$ \_\_\_\_\_



- 23** A box contains some cards.  
 Each card has a question.  
 Each question is about **History**, **Languages**, **Movies** or **Sport**.  
 The questions have three levels **Easy**, **Medium** or **Difficult**.

A card is picked at random.

The table shows the probability that each type of question is picked.

	<b>Easy</b>	<b>Medium</b>	<b>Difficult</b>
<b>History</b>	0.15	0.20	0.05
<b>Languages</b>	0.10	0.08	0.02
<b>Movies</b>	0.01	0.03	0.06
<b>Sport</b>	0.12	0.07	0.11

- 23 (a)** What is the probability that it is a **Sport** question?

[1 mark]

Answer \_\_\_\_\_

- 23 (b)** What is the probability that it is a **Medium** level question about **Languages** or **Movies**?

[1 mark]

Answer \_\_\_\_\_

- 23 (c)** There are 200 cards in the box altogether.

How many **Easy** questions are about **History**?

[2 marks]

\_\_\_\_\_

Answer \_\_\_\_\_

24

$$2x + 3y = 15.5$$

$$x + y = 6$$

Work out the values of  $x$  and  $y$ .

**[3 marks]**

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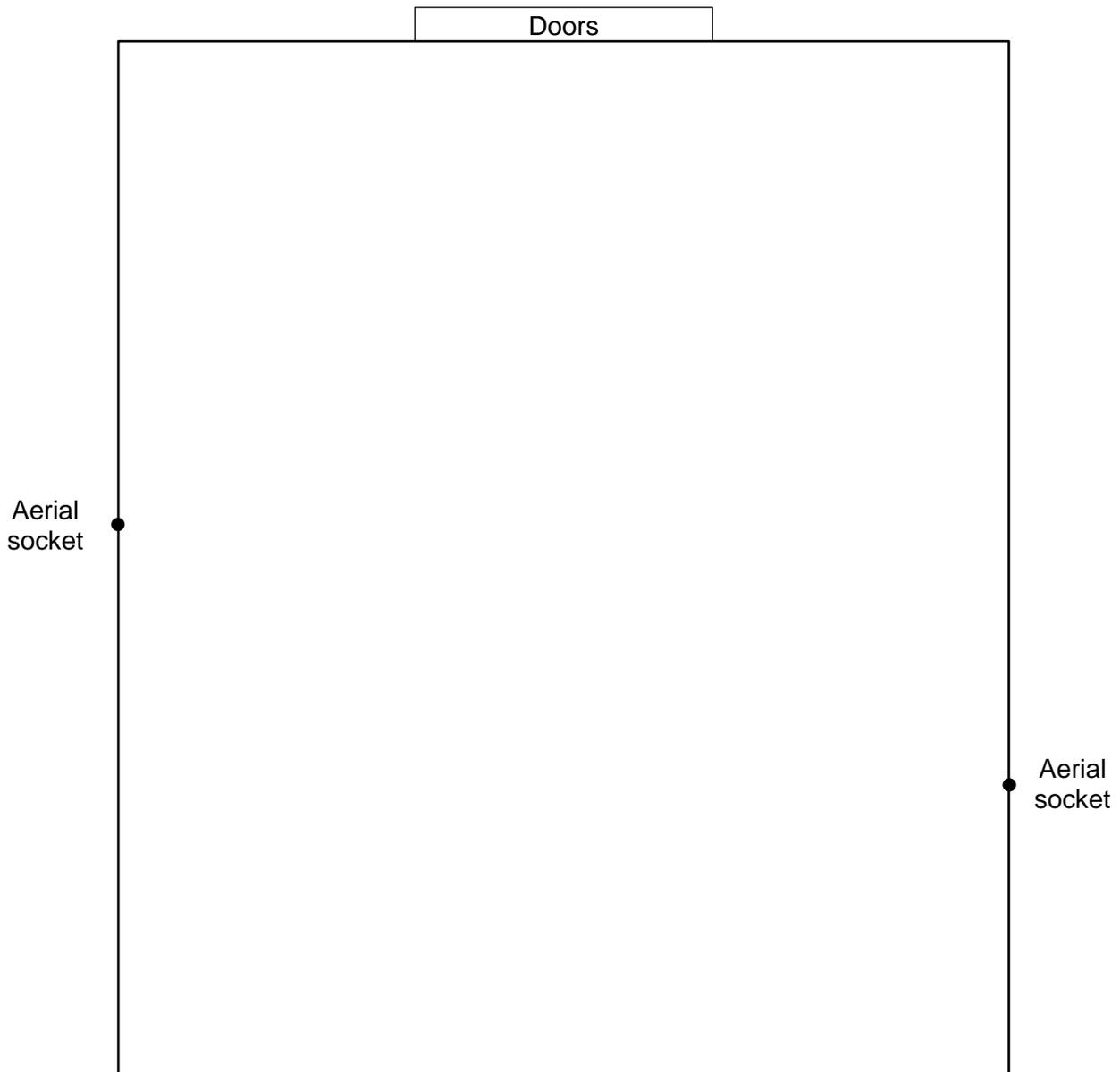
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$$x = \underline{\hspace{10em}}$$

$$y = \underline{\hspace{10em}}$$

25 The diagram shows the plan of a room.

**Scale:** 4 cm represents 1 m



A new socket is to be fitted to **one of the walls**.

It must be

- equidistant from the two aerial sockets
- at least half a metre from the doors.

Use a ruler and compasses to show where the socket should be fitted.

Mark the position with a letter S.

**[4 marks]**

**26** In a school, 60% of the students are girls.

50% of the girls walk to school.

20% of the boys walk to school.

What percentage of the students walk to school?

**[3 marks]**

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Answer \_\_\_\_\_ %

**27** Solve  $x^2 - 5x + 4 = 0$

**[3 marks]**

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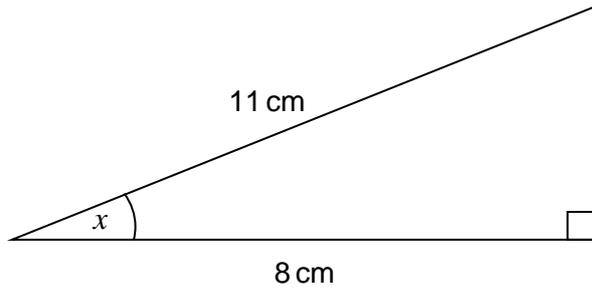
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Answer \_\_\_\_\_

- 28 (a)** Work out the size of angle  $x$ .

Not drawn accurately



[2 marks]

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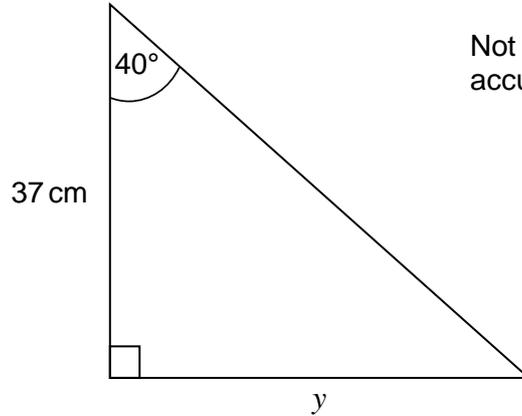
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Answer \_\_\_\_\_ degrees

- 28 (b)** Work out length  $y$ .

Not drawn accurately



[2 marks]

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Answer \_\_\_\_\_ cm

**END OF QUESTIONS**

**There are no questions printed on this page**

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