

Write your name here

Surname	Other names
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Centre Number	Candidate Number									
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**Pearson Edexcel**  
**Level 1/Level 2 GCSE (9–1)**

# Mathematics

## Paper 2 (Calculator)

### Aiming for 4

### Foundation Tier

<b>Summer 2019 Practice Paper</b> <b>Time: 1 hour 30 minutes</b>	Paper Reference <b>1MA1/2F</b>
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**You must have:** Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.

	Total Marks
--	-------------

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the 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 be used.**
- If your calculator does not have a  $\pi$  button, take the value of  $\pi$  to be 3.142 unless the question instructs otherwise.



### Information

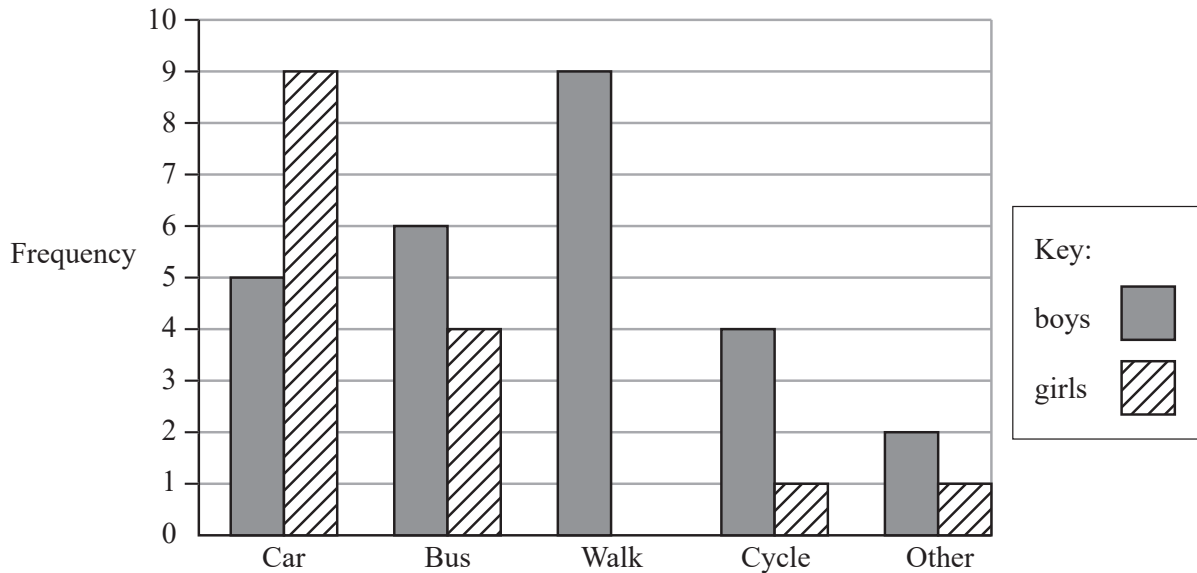
- The total mark for this paper is 80. There are 40 questions.
- Questions have been arranged in an ascending order of mean difficulty, as found by Grade 4 students in the June 2017 and November 2018 examinations
- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*

### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

**Answer ALL questions.**  
**Write your answers in the spaces provided.**  
**You must write down all the stages in your working.**

- 1 A teacher asks the students in Year 6 what type of transport they use to get to school. The dual bar chart shows some of the results.



- (a) What is the most popular type of transport used by the boys?

.....  
**(1)**

7 girls walk to school.

- (b) Show this information on the dual bar chart.

**(1)**

More of the students get to school by car than by bus.

- (c) How many more?

.....  
**(1)**

The number of students in Year 5 is the same as the number of students in Year 6.

- (d) What is the total number of students in Years 5 and 6?

.....  
**(2)**

**(Total for Question 1 is 5 marks)**

2 Here is a list of numbers.

21 22 23 24 25 26 27 28 29

From the numbers in the list, write down a number that is a multiple of **both** 4 and 6.

.....  
**(Total for Question 2 is 1 mark)**

---

3 Write 0.31 as a fraction.

.....  
**(Total for Question 3 is 1 mark)**

---

4 David sells CDs in a shop.

The tally chart shows information about the number of CDs David sold on Monday, on Tuesday and on Wednesday.

	<b>Tally</b>	<b>Frequency</b>
<b>Monday</b>	      	12
<b>Tuesday</b>	           	18
<b>Wednesday</b>	 	8

Write down **one** thing that is wrong with the tally chart.

.....  
.....  
**(Total for Question 4 is 1 mark)**

---

- 5 Adam gets a bonus of 30% of £80  
Katy gets a bonus of £28

Work out the difference between the bonus Adam gets and the bonus Katy gets.

£.....

**(Total for Question 5 is 3 marks)**

---

- 6 There are 49 counters in a bag.  
20 of the counters are red.  
The rest of the counters are blue.  
One of the counters is taken at random.  
Find the probability that the counter is blue.

.....

**(Total for Question 6 is 2 marks)**

---

7 Here is a list of numbers.

21 22 23 24 25 26 27 28 29

From the numbers in the list, write down a square number.

.....  
**(Total for Question 7 is 1 mark)**

---

8 Here are four fractions.

$\frac{2}{5}$        $\frac{11}{30}$        $\frac{1}{2}$        $\frac{7}{15}$

Write these fractions in order of size.  
Start with the smallest fraction.

.....  
**(Total for Question 8 is 2 marks)**

---

- 9 Adrian is going to make concrete.  
He is going to use

180 kg of cement  
375 kg of sand  
1080 kg of stone

Cement, sand and stone are sold in bags.

1 bag cement	1 bag sand	1 bag stone
25 kg	22.5 kg	50 kg

Adrian already has

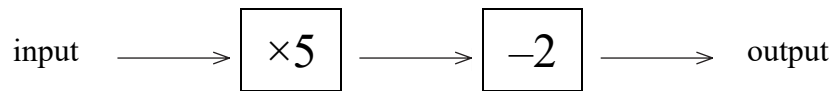
10 bags of cement  
20 bags of sand  
20 bags of stone

Work out what bags he needs to buy to make the concrete.

**(Total for Question 9 is 3 marks)**

---

10 Here is a number machine.



(a) Work out the **output** when the input is 8

.....  
(1)

(b) Work out the **input** when the output is 28

.....  
(2)

**(Total for Question 10 is 3 marks)**

---

11 Indre throws an ordinary fair 6-sided dice once.  
She also throws a coin to get Heads or Tails.

List all the possible outcomes she can get.

.....  
.....  
.....

**(Total for Question 11 is 2 marks)**

---

12 Simplify  $m^3 + m^3$

.....  
**(Total for Question 12 is 1 mark)**

---

13 Write  $3.42 \times 10^4$  as an ordinary number.

.....  
**(Total for Question 13 is 1 mark)**

---

- 14** A map has a scale of 1 cm to 14 km.  
On the map, the distance between Manchester and London is 18.8 cm.  
What is the real distance, in km, between Manchester and London?

.....km

**(Total for Question 14 is 2 marks)**

---

- 15** Simplify  $3m - m - m + 3m$

.....

**(Total for Question 15 is 1 mark)**

---

- 16** Write  $4.7 \times 10^{-1}$  as an ordinary number.

.....

**(Total for Question 16 is 1 mark)**

---

- 17** Solve  $3(x - 4) = 12$

$x =$  .....

**(Total for Question 17 is 2 marks)**

---

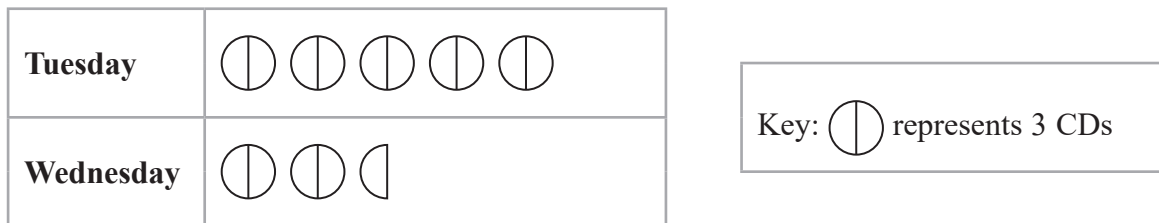


18 Alison sells televisions in a shop.

The tally chart shows information about the number of televisions Alison sold on Monday, on Tuesday and on Wednesday.

	Tally	Frequency
Monday	      	12
Tuesday	           	18
Wednesday	 	8

Alison drew this pictogram to show the information for Tuesday and Wednesday.



Write down **one** thing that is wrong with this pictogram.

.....

.....

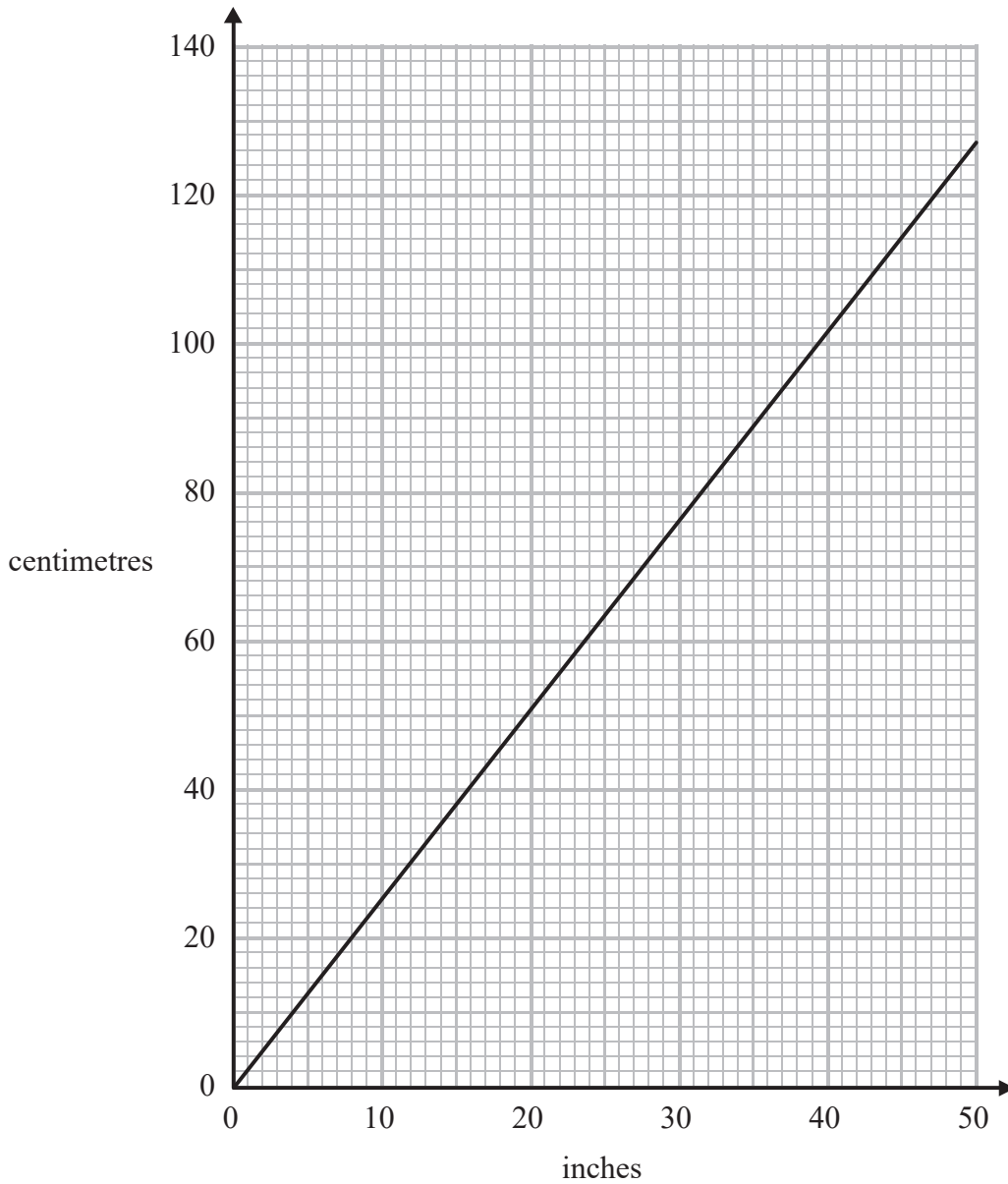
**(Total for Question 18 is 1 mark)**

19 Simplify  $2 \times n \times p \times 4$

.....

**(Total for Question 19 is 1 mark)**

20 You can use this graph to change between inches and centimetres.



Change 74 cm to inches.

..... inches

**(Total for Question 20 is 1 mark)**

21 Write down a square number that is also an odd number.

.....  
**(Total for Question 21 is 1 mark)**

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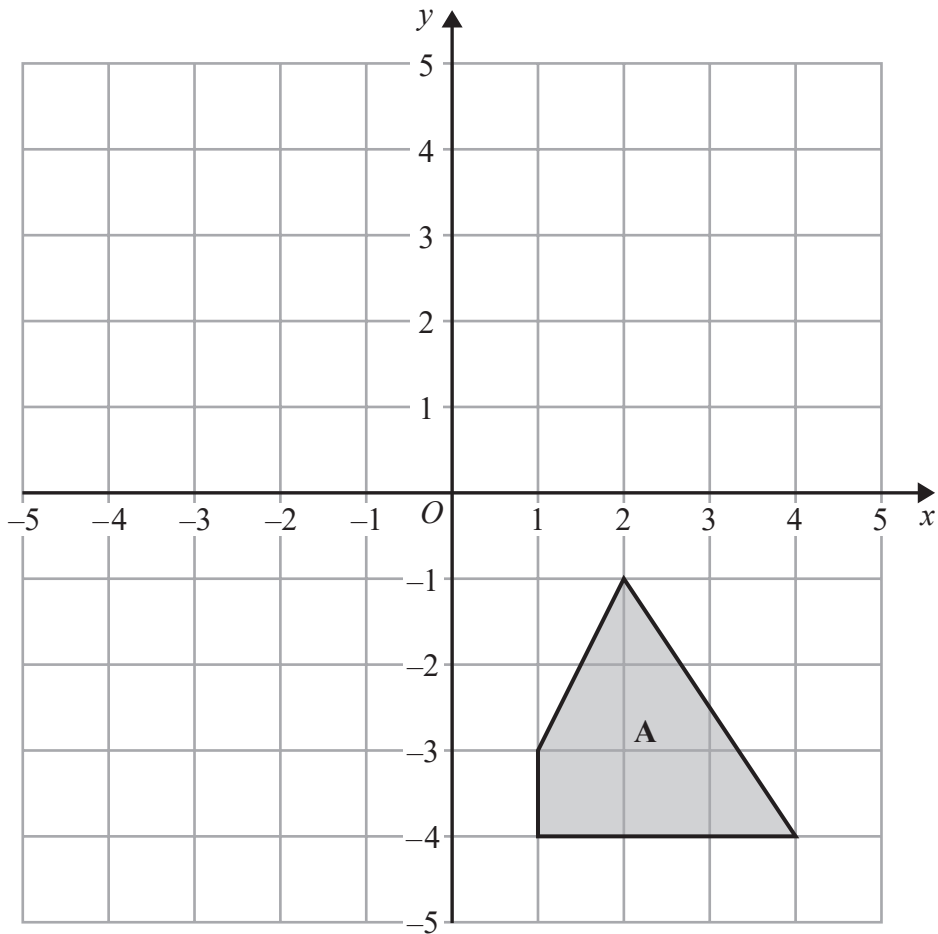
22 Here are four fractions.

$$\frac{3}{4} \qquad \frac{5}{7} \qquad \frac{19}{25} \qquad \frac{11}{15}$$

Write the fractions in order of size.  
Start with the smallest fraction.

.....  
**(Total for Question 22 is 2 marks)**

---



Rotate shape A  $90^\circ$  clockwise about centre O.

(Total for Question 23 is 2 marks)

---

24 Find the value of  $\frac{\sqrt{13.4-1.5}}{(6.8+0.06)^2}$

Write down all the figures on your calculator display.

.....  
(Total for Question 24 is 2 marks)

---

- 25 The probability that a new fridge has a fault is 0.015.  
What is the probability that a new fridge does **not** have a fault?

.....  
(Total for Question 25 is 1 mark)

---

- 26 Suha is going to buy 150 envelopes.  
Here is some information about the cost of envelopes in two shops.

<p style="text-align: center;"><b>Letters2send</b> Pack of 25 envelopes for £3.49</p>
---

<p style="text-align: center;"><b>Stationery World</b> Pack of 10 envelopes for £2.10 Buy 2 packs get 1 pack free</p>
---

Suha wants to buy the envelopes as cheaply as possible.  
Which shop should Suha buy the 150 envelopes from?  
You must show how you get your answer.

(Total for Question 26 is 4 marks)

---

27 Victoria throws an ordinary fair 6-sided dice once.

She says,

“The probability of getting a 3 is half the probability of getting a 6”

Is Victoria correct?

You must explain your answer.

.....  
.....

**(Total for Question 27 is 1 mark)**

---

28 There are 495 coins in a bottle.

$\frac{1}{3}$  of the coins are £1 coins.

124 of the coins are 50p coins.

The rest of the coins are 20p coins.

Work out the total value of the 495 coins.

£.....

**(Total for Question 28 is 4 marks)**

29 Write down the value of the 4 in the number 542.3

.....  
(Total for Question 29 is 1 mark)

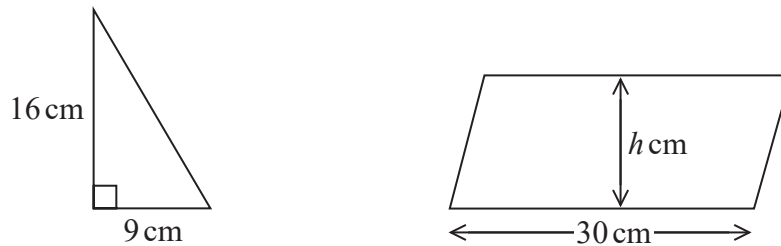
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30 Simplify  $10 + 3c + 5d - 7c + d$

.....  
(Total for Question 30 is 2 marks)

---

31 The diagram shows a right-angled triangle and a parallelogram.



The area of the parallelogram is 5 times the area of the triangle.  
The perpendicular height of the parallelogram is  $h$  cm.

Find the value of  $h$ .

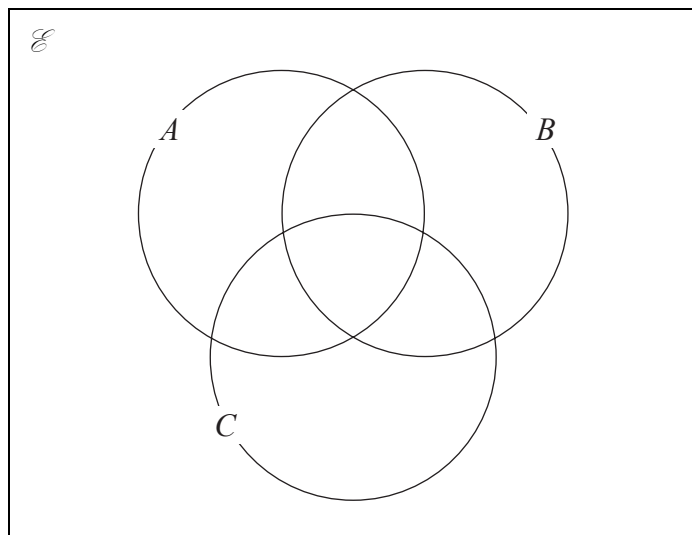
$h =$  .....  
(3)

(Total for Question 31 is 5 marks)

---

- 32  $\mathcal{E} = \{\text{even numbers between 1 and 25}\}$   
 $A = \{2, 8, 10, 14\}$   
 $B = \{6, 8, 20\}$   
 $C = \{8, 18, 20, 22\}$

(a) Complete the Venn diagram for this information.

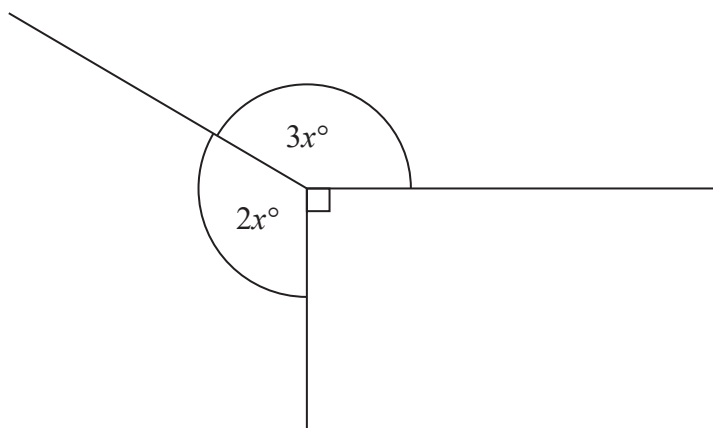


(Total for Question 32 is 4 marks)

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33



Find the value of  $x$ .

.....  
(Total for Question 33 is 3 marks)

---

34 Work out  $\frac{2.3 \times 10^4 \times 6.7 \times 10^3}{5 \times 10^{-8}}$

.....  
(Total for Question 34 is 2 marks)

35 Change 4560 g into kg.

.....kg

**(Total for Question 35 is 1 mark)**

---

36 Bill wants to increase 150 by 3%  
He writes down

$$150 \times 1.3 = 195$$

Bill's method is wrong.

Explain why.

.....  
.....

**(Total for Question 36 is 1 mark)**

---

37 Daniel's height is 6 feet 3 inches.

1 foot = 12 inches

What is Daniel's height in centimetres?

..... centimetres

**(Total for Question 37 is 3 marks)**

---

38 Here are the first three terms of a sequence.

1                      2                      4

Write down two numbers that could be the 4th term and the 5th term of this sequence.  
Give the rule you have used to get your numbers.

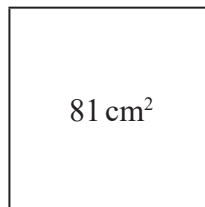
.....  
.....  
.....

(2)

(Total for Question 38 is 2 marks)

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39 A square has an area of  $81 \text{ cm}^2$



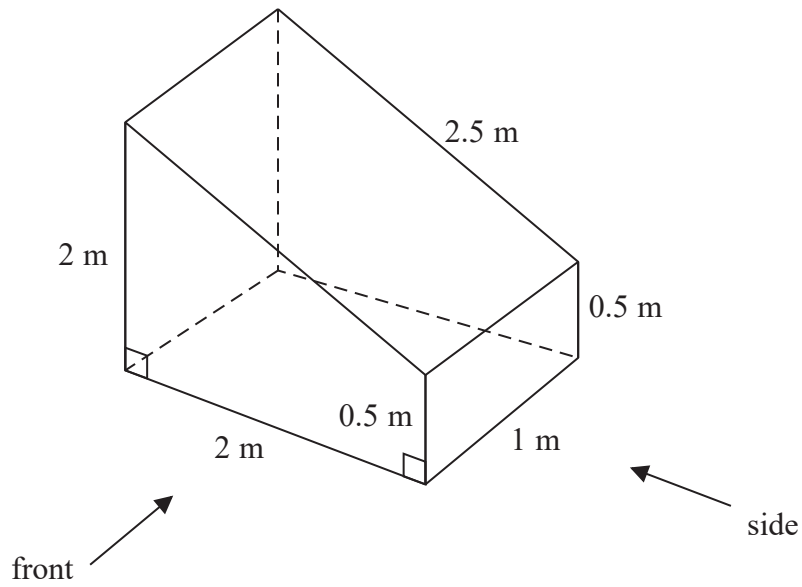
Find the perimeter of the square.

.....cm

(Total for Question 39 is 2 marks)

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40 The diagram shows a prism with a cross section in the shape of a trapezium.



On the centimetre grid below, draw the front elevation and the side elevation of the prism. Use a scale of 2 cm to 1 m.



(Total for Question 40 is 4 marks)

**TOTAL FOR PAPER IS 80 MARKS**