(Time: 1 hour)

Mathematics Practice Paper

You must have:
Ruler graduated in centimetres and millimetres, pen, HB pencil, eraser, protractor. Tracing paper may be used.

Total Marks

Instructions

- Use **black** ink or **black** 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*.

Information

- The total mark for this paper is 60.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- Candidates may **NOT** use a calculator.

Advice

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

Answer ALL questions.

In Section A put a cross in one box ⊠ to indicate your answer. If you change your mind, put a line through the box ⧅ and then put a cross in another box ⊠.

1 What number is the arrow pointing to on this number line?
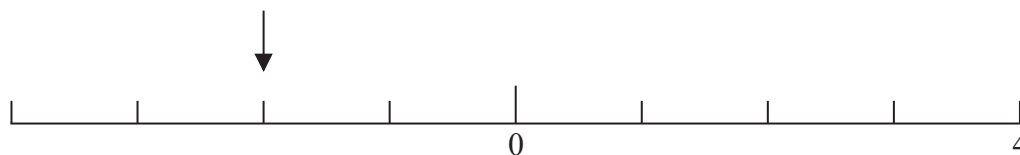
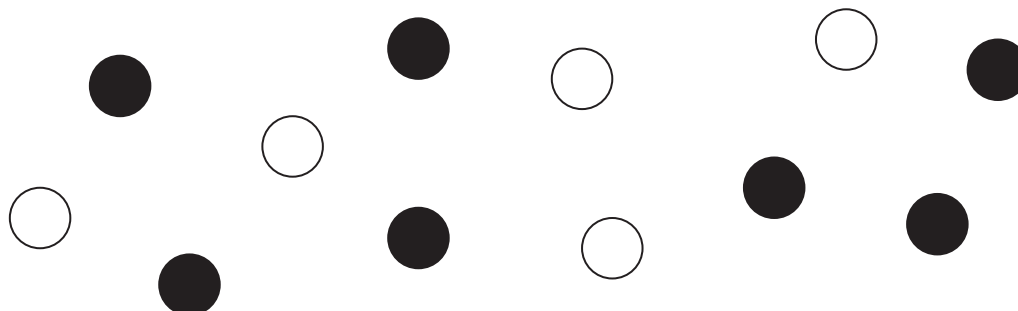| 3	−3	2	−2
⊠	⊠	⊠	⊠

(Total for Question 1 is 1 mark)

2 What fraction of these counters have been shaded?

$\dfrac{5}{7}$	$\dfrac{5}{12}$	$\dfrac{7}{12}$	$\dfrac{7}{5}$
⊠	⊠	⊠	⊠

(Total for Question 2 is 1 mark)

3 What 3D shape would be made from this net?

Cube	Cuboid	Cylinder	Pyramid
☒	☒	☒	☒

(Total for Question 3 is 1 mark)

4 Work out

$$3476 - 548$$

2928	3132	3938	4024
☒	☒	☒	☒

(Total for Question 4 is 1 mark)

5 Here is a number pattern.

The rule is subtract 7

$$79, \quad 72, \quad \boxed{}, \quad 58, \quad 51$$

What is the missing number?

2	44	65	75
☒	☒	☒	☒

(Total for Question 5 is 1 mark)

6 What is the perimeter of a rectangle which is 8 cm long and 7 cm wide?

15 cm	23 cm	30 cm	56 cm
☒	☒	☒	☒

(Total for Question 6 is 1 mark)

7 Which of these gives a total of 1?

$$\frac{2}{4} + \frac{1}{3} \qquad \frac{2}{3} + \frac{1}{2} \qquad \frac{1}{5} + \frac{3}{5} \qquad \frac{3}{6} + \frac{1}{2}$$

☒   ☒   ☒   ☒

(Total for Question 7 is 1 mark)

8 What is $\frac{1}{2}$ of 5 m?

2.5 mm   2.5 cm   250 mm   250 cm

☒   ☒   ☒   ☒

(Total for Question 8 is 1 mark)

9 Which of these numbers is a multiple of 4 and 12?

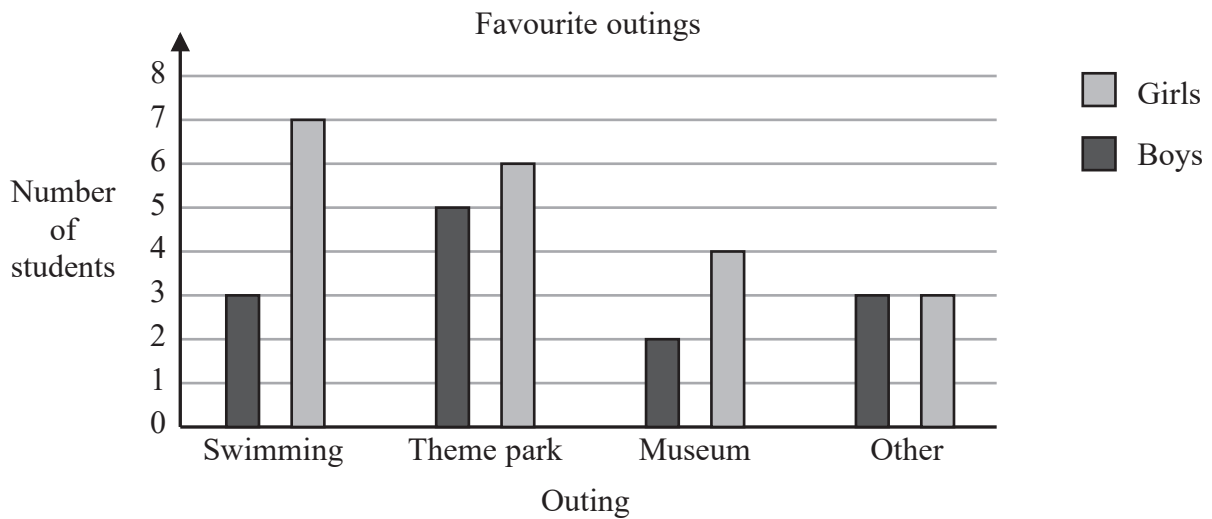|	2	3	36	40
	☒	☒	☒	☒

(Total for Question 9 is 1 mark)

10 Fatima asked the students in her class what their favourite outing would be.

She drew this graph of her results.

Favourite outings

Which outing did the most students choose?

	Swimming	Theme park	Museum	Other
	☒	☒	☒	☒

(Total for Question 10 is 1 mark)

11 The marks for some students on their science test are shown.

$$9 \quad 6 \quad 14 \quad 7 \quad 11 \quad 7$$

What is the mean mark?

6 ☒

7 ☒

8 ☒

9 ☒

(Total for Question 11 is 1 mark)

12 Calculate

$$26 + 37 + 14$$

49 ☒

67 ☒

77 ☒

79 ☒

(Total for Question 12 is 1 mark)

13 What is 3 647 rounded to the nearest hundred?

3 000	3 600	3 700	4 000
☒	☒	☒	☒

(Total for Question 13 is 1 mark)

14 What is 35% of 120?

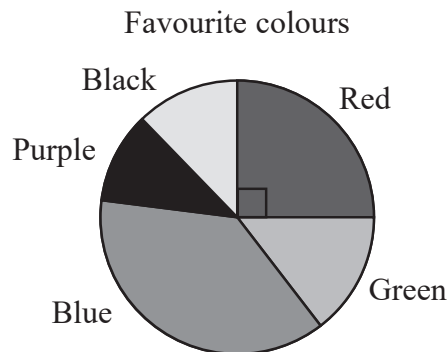| 36	42	45	78
☒	☒	☒	☒

(Total for Question 14 is 1 mark)

15 In a survey, some students were asked what their favourite colour is.

This pie chart shows the results.

Favourite colours

12 students chose red.

How many students were included in the survey?

36	48	60	72
☒	☒	☒	☒

(Total for Question 15 is 1 mark)

16 Which of these letters has a pair of parallel lines?

$$A \qquad L \qquad V \qquad Z$$

A	L	V	Z
☒	☒	☒	☒

<div align="right">(Total for Question 16 is 1 mark)</div>

17 Find the value of the expression

$$8a + 5b$$

when $a = 4$ and $b = 6$

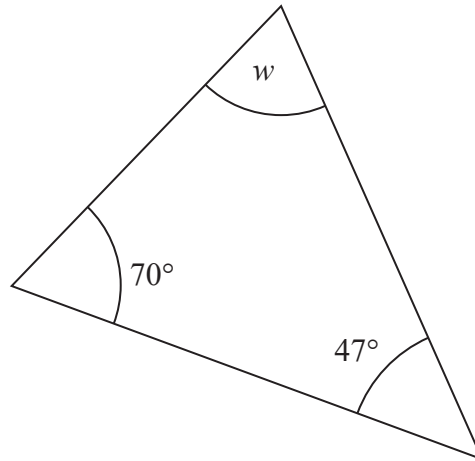| 62	88	114	140
☒	☒	☒	☒

<div align="right">(Total for Question 17 is 1 mark)</div>

18 Here is a triangle.

What is the size of angle *w*?

63°   73°   110°   133°

☒   ☒   ☒   ☒

(Total for Question 18 is 1 mark)

19 Work out

$$171 \div 5$$

$34\dfrac{1}{21}$ $34\dfrac{1}{5}$ $34\dfrac{5}{21}$ $34\dfrac{4}{5}$

☒   ☒   ☒   ☒

(Total for Question 19 is 1 mark)

20 Alex is working out a calculation.

He rounds both numbers in the calculation to the nearest whole number.

The answer is 25

Which of these calculations is he working out?

16.36 + 8.36 ☒   16.36 + 8.45 ☒   16.36 + 8.79 ☒   16.36 + 9.57 ☒
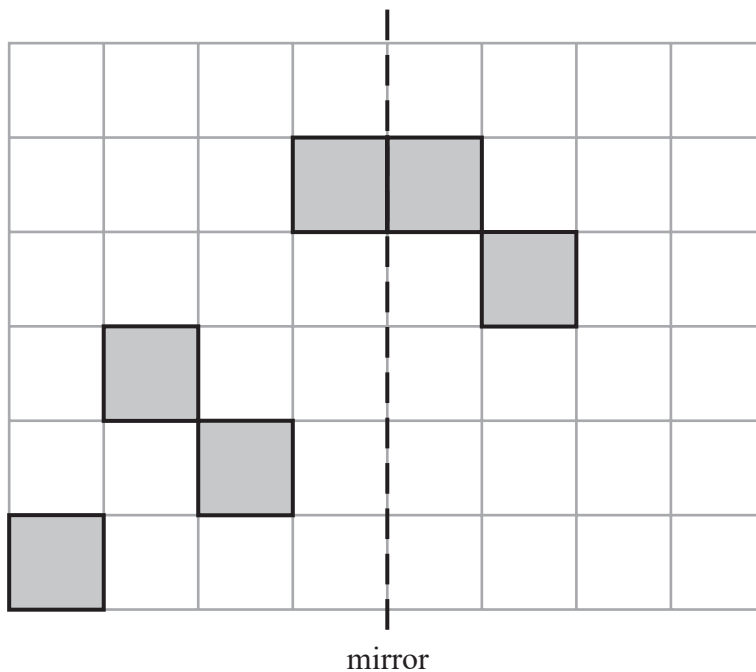
(Total for Question 20 is 1 mark)

TOTAL FOR SECTION A IS 20 MARKS

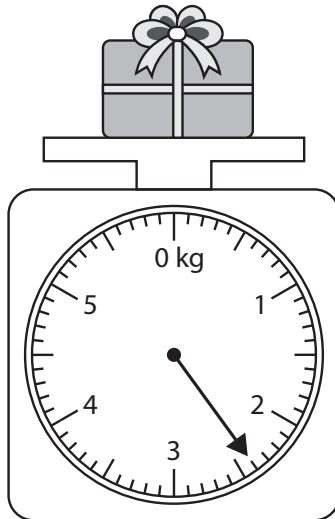**BLANK PAGE**

SECTION B

Answer ALL questions.

21 Shade four squares to make a pattern which is symmetrical about the mirror line.

mirror

(1)

(Total for Question 21 is 1 mark)

22 Nisha needs to find the weight of a parcel before it is posted.

(a) How much does Nisha's parcel weigh in kilograms?

.... kg

(1)

Nisha has another parcel to post that is identical to the one above.

(b) What is the total weight of these two parcels in grams?

.... g

(1)

(Total for Question 22 is 2 marks)

23 Match each of the decimals to its equivalent fraction.

One has been done for you.

0.2		$\dfrac{1}{2}$
0.3		$\dfrac{3}{4}$
0.5		$\dfrac{3}{5}$
0.6		$\dfrac{1}{5}$
0.75		$\dfrac{3}{10}$
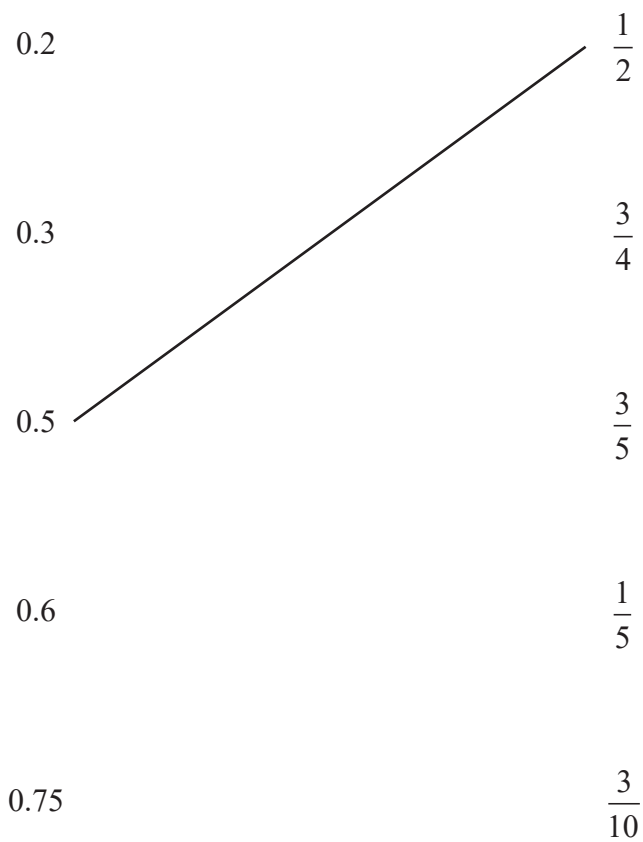
(Total for Question 23 is 2 marks)

24 Calculate

(a) $\dfrac{1}{6}$ of 180

....
(1)

(b) $\dfrac{5}{8}$ of 320

....
(2)

(Total for Question 24 is 3 marks)

25 Here is part of a bus timetable.

Omar left **Station Road** at **7:55**

	Bus A	Bus B	Bus C
High Street	7:30	7:45	8:00
Station Road	7:40	7:55	8:10
Church Street	7:45	8:00	8:15
Hospital	7:48	8:03	8:18
Library	7:53	8:08	8:23
School	8:00	8:15	8:30

What time did he arrive at the **Library**?

....

(Total for Question 25 is 1 mark)

26 Eden and Louis have $450

They share the money in the ratio 5:4

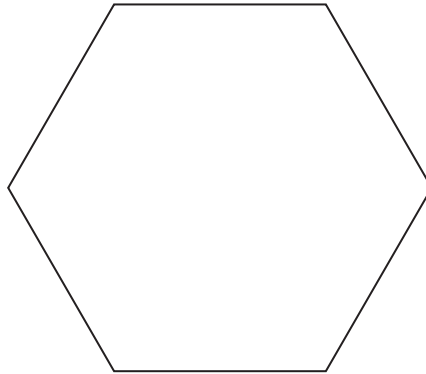Eden receives the most money.

How much money do they each receive?

Eden $ ....

Louis $ ....
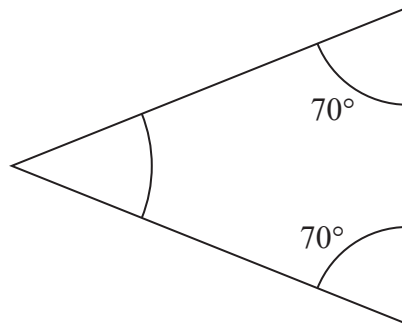
(Total for Question 26 is 2 marks)

27 (a) Here is a regular hexagon.

Using correct notation, mark one set of parallel lines on the hexagon.
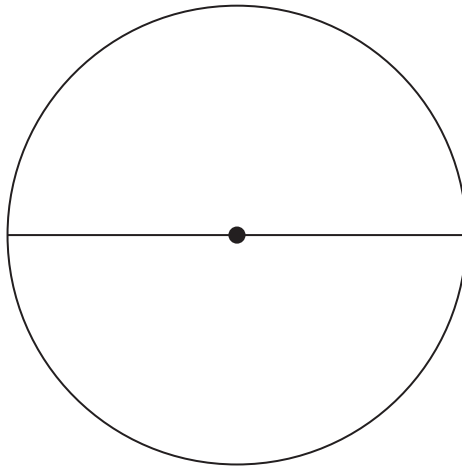
(1)

(b) Here is a triangle.

70°

70°

What is the name of this type of triangle?

....

(1)

(c) A line has been drawn through the centre of this circle.

What is the name of this line?

....
(1)

(d) Work out the size of angle x

50°

x
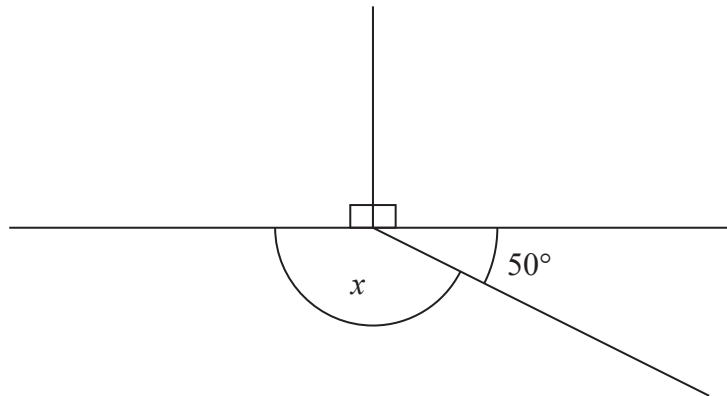
$x = $ .... °
(1)

(Total for Question 27 is 4 marks)

28 (a) Work out

$$\frac{1}{4} \times \frac{3}{5}$$

....
(1)

(b) Work out

$$\frac{2}{3} \div 4$$

....
(1)

(Total for Question 28 is 2 marks)

29 Here are the times, in seconds, that it took some members of a swimming club to complete one length.

25   23   31   28   27   28   25   32   28

(a) What is the median time?

.... seconds
(1)

(b) What is the range of these times?

.... seconds
(1)

(Total for Question 29 is 2 marks)

30 This table shows the favourite fruit of 36 children.

Fruit	Number of children
Banana	9
Grape	3
Orange	18
Pineapple	6

Present the information from this table as a pie chart.

Label your pie chart.

Pie chart of favourite fruits
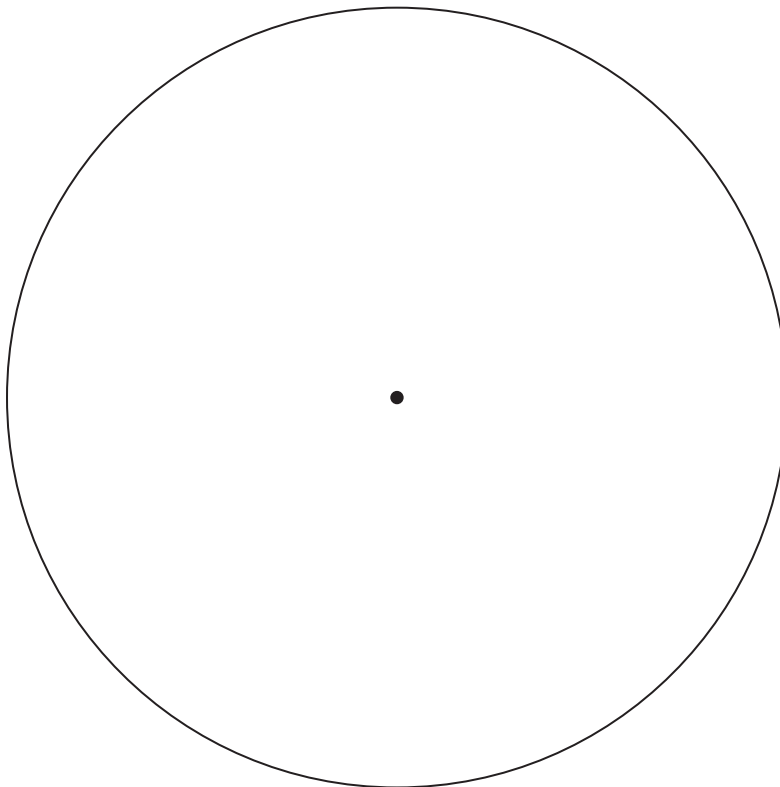
(Total for Question 30 is 3 marks)

31 (a) Calculate

$$3524 \times 34$$

You must show your working.

....
(2)

(b) Calculate

$$3915 \div 29$$

You must show your working.

....
(2)

(Total for Question 31 is 4 marks)

32 (a) Expand

$$3(4x - 2)$$

....
(1)

(b) Expand and simplify

$$4(2a + 3b) + 3(2a - 3b)$$

....
(2)

(c) Solve the equation

$$4x - 3 = 25$$

....
(1)

(Total for Question 32 is 4 marks)

33 Points P and Q are plotted on the coordinate grid.
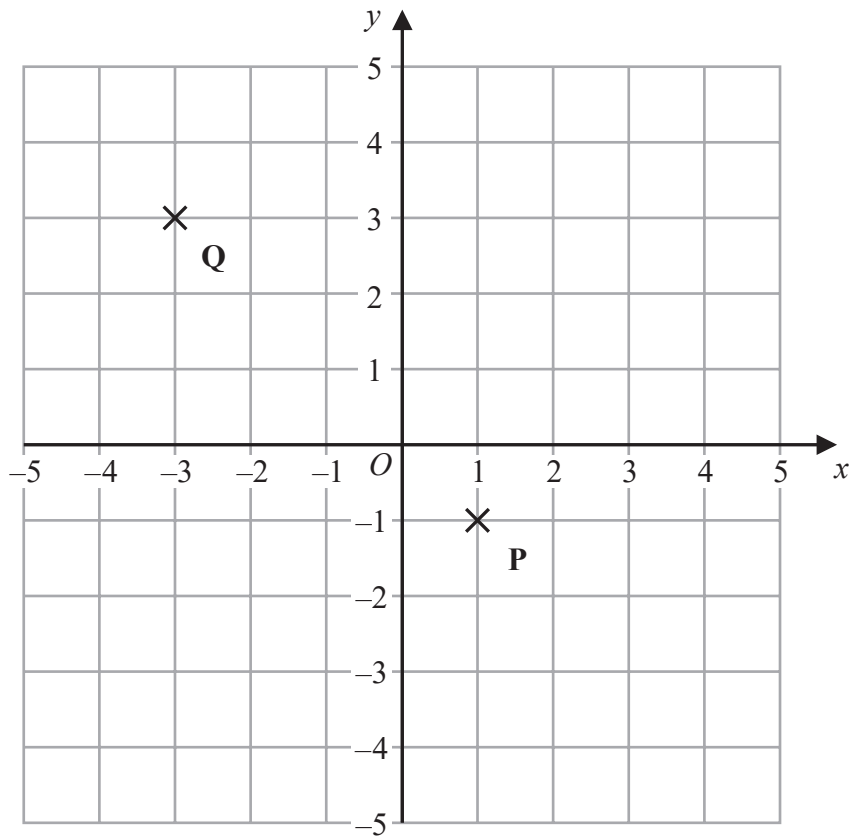
(a) Plot point S(3, 1)

(1)

(b) Point R completes the rectangle PQRS.

What are the coordinates of point R?

(........................ , ...)

(1)

(Total for Question 33 is 2 marks)

34 (a) Write down all of the factors of 54?

....

(2)

(b) What is the highest common factor (HCF) of 54 and 12?

....

(1)

(c) Write 54 as the product of its prime factors.

....

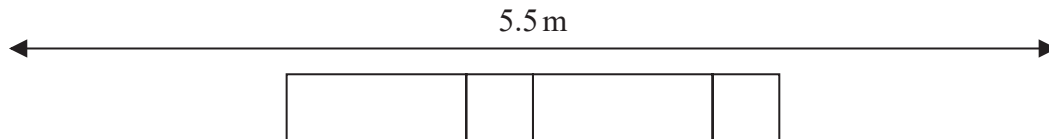**(2)**

(Total for Question 34 is 5 marks)

35 A builder has been asked to build a 5.5 m long path.

He needs to use two different sizes of stones in an alternate pattern.

He must use 9 stones.

5.5 m

One stone is square with size 50 cm × 50 cm.

What could the size of the other stone be?

You must show your working.

....

(Total for Question 35 is 3 marks)

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