

Write your name here	
Surname	Other names
Centre Number	Candidate Number
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Pearson Edexcel International Primary Curriculum	
<b>Mathematics</b> <b>Year 6</b> <b>Achievement Test</b>	
Thursday 12 June 2014 – Morning <b>Time: 1 hour</b>	Paper Reference <b>JMA01/01</b>
<b>You must have:</b> Ruler graduated in centimetres and millimetres, pen, HB pencil, eraser. 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.*
- Calculators are **NOT** allowed.



### 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.*

### 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.

Turn over ►

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P 4 3 7 1 4 A 0 1 2 4

PEARSON

## SECTION A

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 ☐.

Each question in Section A is worth one mark.

- 1 What is the missing number?

$$25 - 8 - \boxed{\phantom{00}} = 8$$

0



9



17



25



- 2 A fraction of this square is shaded.



Which shape has the same fraction shaded?



- 3 Which calculation equals 100?

$$19 + 91$$



$$46 + 56$$



$$74 + 16$$



$$65 + 35$$



4 The time on a digital clock is



The clock is 5 minutes fast.

What is the correct time?

14:45

☐

14:50

☐

15:00

☐

15:05

☐

5 Here is a sorting table.

	Multiples of 6	Not multiples of 6
Multiples of 4	A	B
Not multiples of 4	C	D

In which cell would 48 appear?

A

☐

B

☐

C

☐

D

☐

6 Calculate  $(7 + 2) \times (12 - 7)$

24

☐

35

☐

45

☐

101

☐

7 Which addition equals 1?

$$\frac{1}{2} + \frac{3}{4}$$

☐

$$\frac{1}{4} + \frac{1}{6}$$

☐

$$\frac{2}{4} + \frac{1}{2}$$

☐

$$\frac{1}{5} + \frac{3}{5}$$

☐

8 Of which two numbers is 28 a multiple?

2 and 12

☐

3 and 8

☐

4 and 6

☐

4 and 7

☐

9 Add 1.6 and 3.7

4.13

☐

4.3

☐

4.67

☐

5.3

☐

10 Sam has 10 counters.

Amal has 16 more than half of Sam's counters.

How many counters does Amal have?

13

☐

16

☐

21

☐

24

☐

11 What is  $\frac{1}{2}$  of 3 m?

1.5 mm

☐

1.5 cm

☐

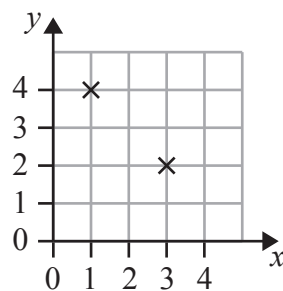
150 mm

☐

150 cm

☐


**12** Two points are plotted on the grid.



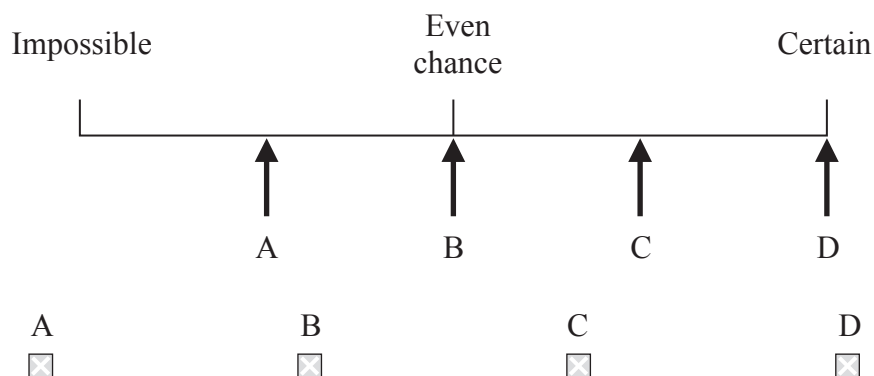
What are the coordinates of the points shown on the grid?

- ☐ (2, 3) and (4, 1)    
 ☐ (2, 3) and (1, 4)    
 ☐ (3, 2) and (4, 1)    
 ☐ (3, 2) and (1, 4)

**13** A bag contains four balls. Two of the balls are white, two of the balls are black.

A ball is chosen without looking.

Which arrow best shows the likelihood that a black ball is chosen?



14 Here is a tally chart showing the ages of a group of people.

Age group in years	Tally
0 – 9	
10 – 19	
20 – 29	
30 – 39	
40 – 49	
50 – 59	
60 – 69	
70 – 79	
80 and over	

How many of the people are aged 40 and over?

4

☐

17

☐

19

☐

21

☐

15 Which of these numbers is a multiple of 8 and a multiple of 12?

2

☐

4


☐

24

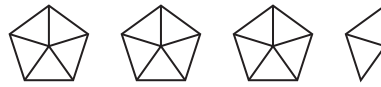
☐

36

☐


16  represents 100

Which number is represented by this pictogram?



302

☐

320

☐

340

☐

350

☐

17 Find the value of

$$3n + 5$$

when  $n = 4$

12

☐

17

☐

27

☐

39

☐

18 Here is a set of numbers.

10    8    3    3    12    2    5

Find the median.

3

☐

5

☐

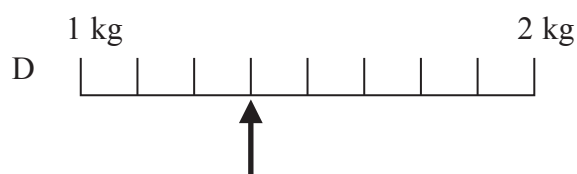
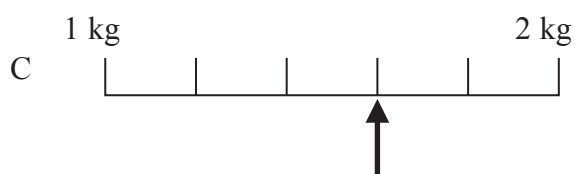
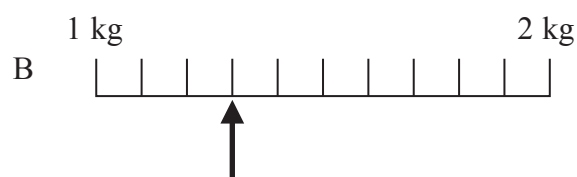
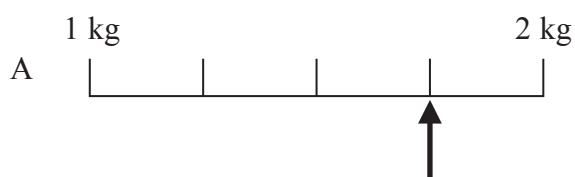
6

☐

10

☐

19 Which scale shows a weight of 1.3 kg?



A



B



C



D

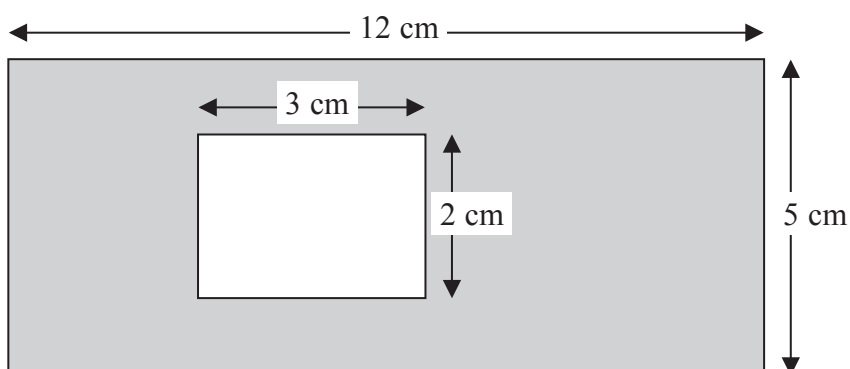


20 Here is a rectangle measuring 12 cm by 5 cm.

A smaller 3 cm by 2 cm rectangle has been cut out of it.

Calculate the shaded area.

Diagram **NOT** accurately drawn



13 cm<sup>2</sup>



26 cm<sup>2</sup>



52 cm<sup>2</sup>



54 cm<sup>2</sup>



**TOTAL FOR SECTION A IS 20 MARKS**





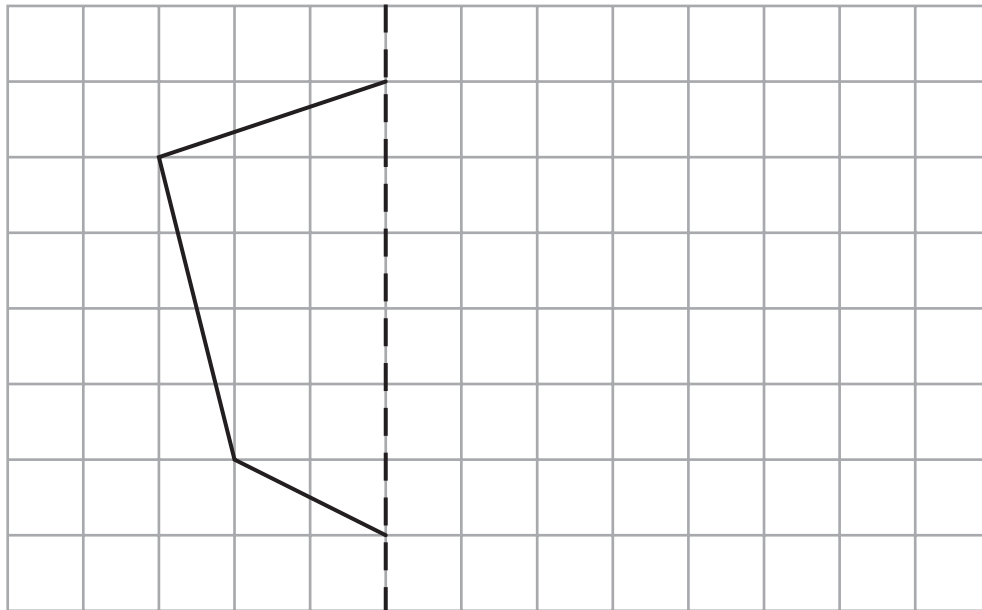
## SECTION B

Answer ALL questions.

21 Here is part of an unfinished shape.

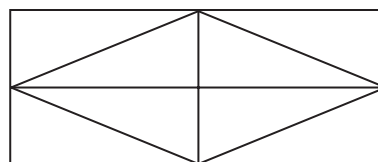
The dotted line is the mirror line.

Draw some more lines to make this a symmetrical hexagon.



(Total for Question 21 is 1 mark)

22 Shade  $\frac{3}{4}$  of this shape.



(Total for Question 22 is 1 mark)

**23** Nishi has three number cards.



She uses them to make a multiplication, like this.

$$\boxed{\phantom{00}}\boxed{\phantom{00}} \times \boxed{\phantom{00}} =$$

What is the largest possible answer?

(Total for Question 23 is 1 mark)

**24** The numbers in this sequence increase by the same amount each time.

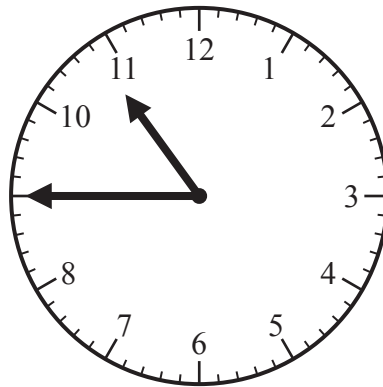
Fill in the three missing numbers.

\_\_\_\_\_ 5 13 21 \_\_\_\_\_ \_\_\_\_\_ 45 53

(Total for Question 24 is 2 marks)



**25** The clock shows the start time of a morning television programme.



(a) What would this time be on a digital clock?

	:	
--	---	--

(1)

(b) The programme lasts for 1 hour and 35 minutes.

What time will it finish?

	:	
--	---	--

(1)

**(Total for Question 25 is 2 marks)**

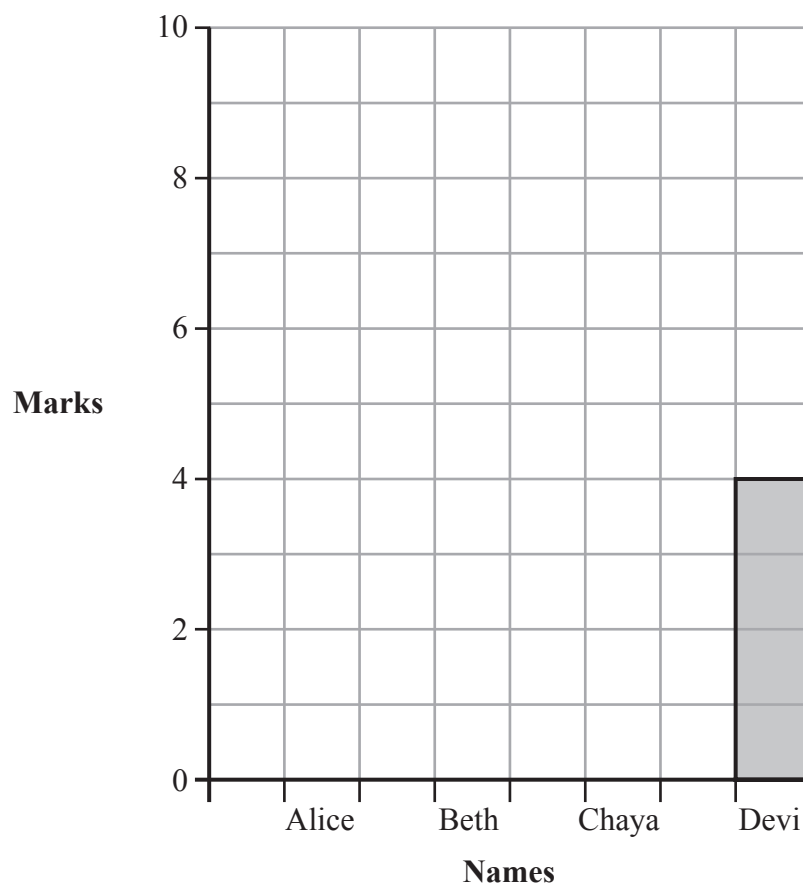
**26** Four girls mark their mathematics work.

The table shows their marks.

Alice	10
Beth	6
Chaya	9
Devi	4

Draw blocks on the graph to show their marks.

One block has been drawn for you.



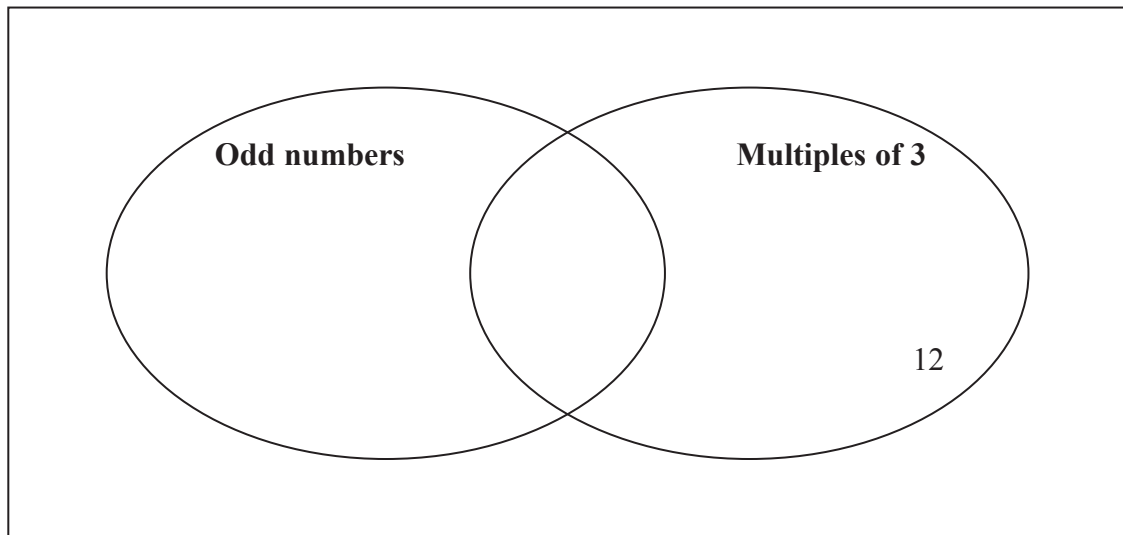
(Total for Question 26 is 2 marks)

**27** Here is a list of numbers

6            9            12            13            21

The number 12 has been placed on the sorting diagram for you.

Place the remaining numbers correctly on the sorting diagram below.



**(Total for Question 27 is 2 marks)**

**28** Dinesh is a long jumper.

His best jump is 5.2 m.

He compares his jump with the world record jump of 8.95 m.

(a) What is the difference between the two jumps?

..... m  
(1)

(b) Four athletes run a relay race.

Three of their times are shown in the table.

The total time is 51.3 seconds.

Athlete	Time (seconds)
Dale	12.1
Mark	13.2
Simon	12.5
Habib	
Total	51.3

What was Habib's time?

..... seconds  
(2)

**(Total for Question 28 is 3 marks)**

**29** Jack says:

I am thinking of a number. I add 6 and divide the answer by 4 and I get 6

What was Jack's number?

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



**30** There are 20 passengers on a bus.

There are 2 adults for every 3 children.

How many adults and how many children are on the bus?

..... adults  
(1)

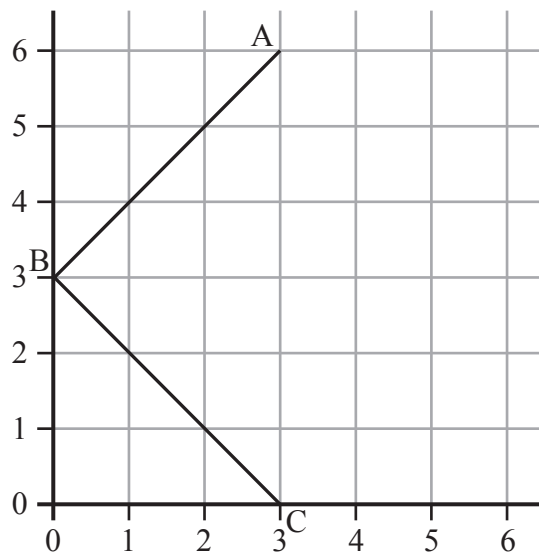
..... children  
(1)

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



**31** Two sides of a square ABCD are drawn on the grid.

Three of the vertices are shown.



(a) Draw another two sides to complete the square.

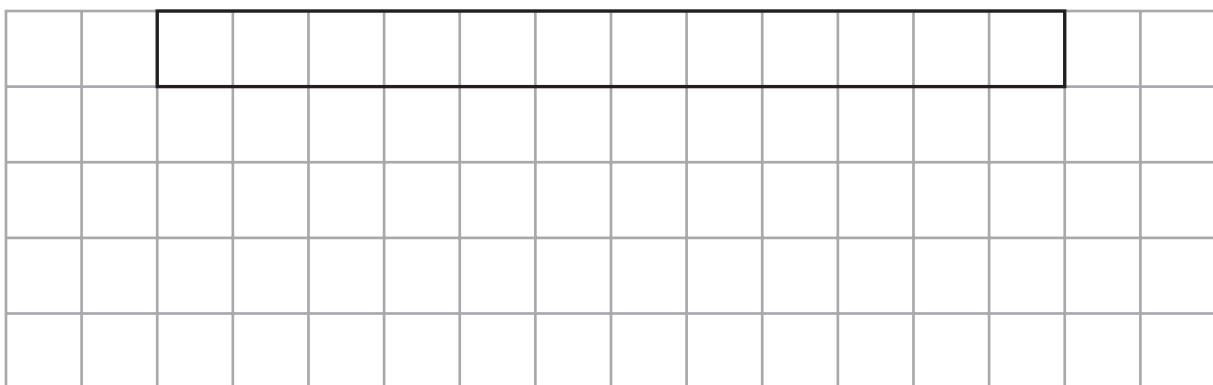
(1)

(b) Give the coordinates of D.

(....., .....)  
(1)

(c) Here is a rectangle.

On the grid below draw another rectangle that has the same area but a different perimeter.



(1)

**(Total for Question 31 is 3 marks)**



**32** A group of boys complete a test of 30 questions.

(a) Dev gets 60% of the questions right.

How many of the questions did he get right?

.....  
(1)

(b) Akfa gets  $\frac{5}{6}$  of the questions right.

How many of the questions did he get right?

.....  
(1)

(c) Joe got four questions right for every one question he got wrong.

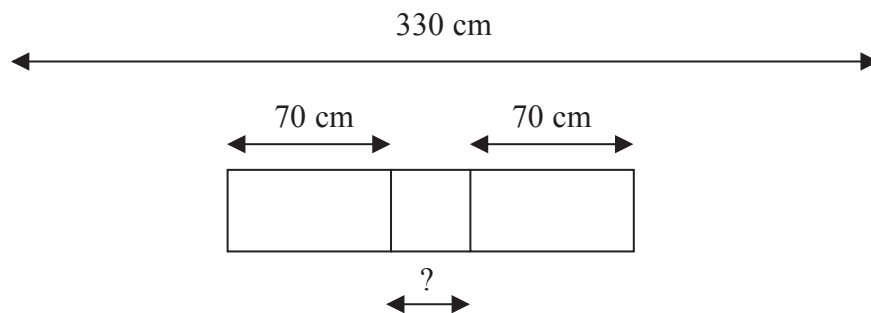
How many of the questions did he get right?

.....  
(1)

**(Total for Question 32 is 3 marks)**



**33** Two sizes of stones are laid alternately in a pattern which is 330 cm long.



The larger stones are 70 cm long and the smaller stones need to be less than 50 cm long.

How long could each smaller stone be?

..... cm

How many larger and smaller stones would be needed for the pattern?

..... larger stones

..... smaller stones

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



**34 Calculate**

$$948 \div 6 =$$

---

(Total for Question 34 is 1 mark)

**35 Write in the missing numbers.**

(a)  $\frac{4}{5}$  of 20 =

(1)

(b)  $\frac{\boxed{\phantom{00}}}{3}$  of 12 = 8

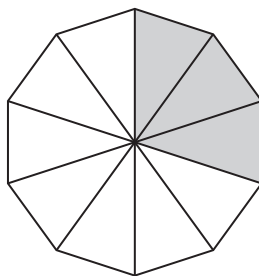
(1)

---

(Total for Question 35 is 2 marks)

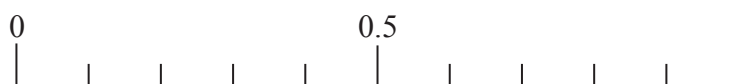


**36 (a)** A spinner has 10 equal sections. Three sections are shaded.



Tom spins the spinner.

Place an arrow ( $\downarrow$ ) on this line to show the probability that the spinner will land on a shaded section.



(1)

**(b)** In a bag there are 5 coloured balls.

Joe says:

The probability of taking a blue ball from the bag is 0.5

Explain why Joe is incorrect.

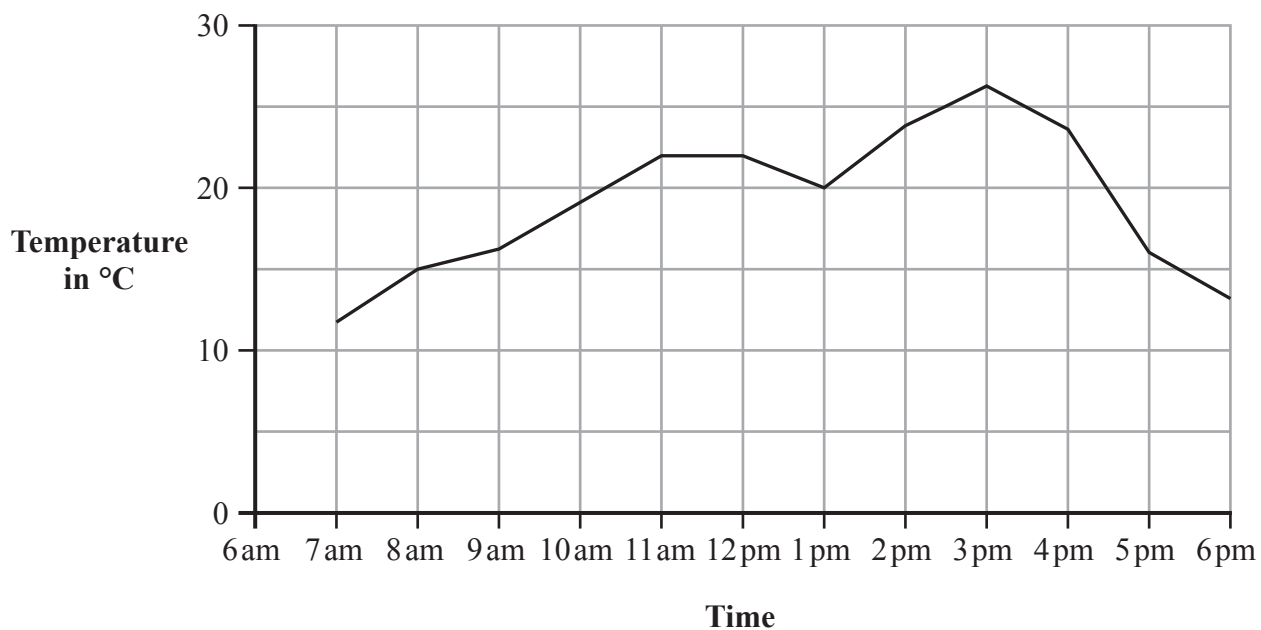
(1)

**(Total for Question 36 is 2 marks)**



37 The temperature in a classroom is recorded throughout a day.

The results are recorded on a line graph.



(a) For how long was the temperature at least 20 °C?

.....  
(1)

(b) What was the temperature at 9:30 am?

..... °C  
(1)

(c) At what time did the temperature first reach 25 °C?

.....  
(1)

(Total for Question 37 is 3 marks)



**38** Jill completes five mental tests and her mean score is 9

Her scores in the first four tests were 8, 11, 11 and 8

(a) What was Jill's score in the fifth test?

.....  
(1)

(b) What was the range of Jill's scores?

.....  
(1)

(c) Anne also completes five tests.

Her scores in the first four tests were 10, 6, 7 and 8

When she got her score for the fifth test, the range of her scores was 8

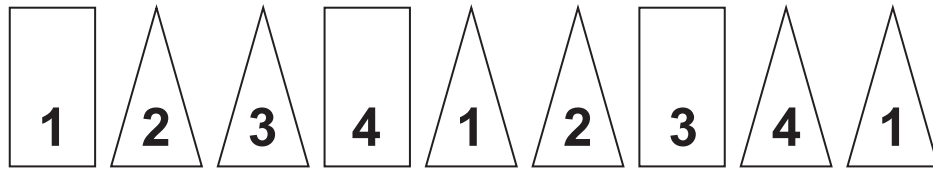
What could her fifth score have been?

.....  
(1)

**(Total for Question 38 is 3 marks)**



**39** Here is a sequence of shapes and numbers.



What shape will the 20th shape in the sequence be?

.....  
(1)

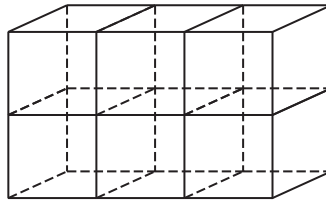
What number will the 20th number in the sequence be?

.....  
(1)

**(Total for Question 39 is 2 marks)**



**40** Dave has 6 cubes and puts them together to form this cuboid.



If Dave used 20 cubes to make a cuboid, how long, wide and high could the cuboid be?

Length ..... cubes

Width ..... cubes

Height ..... cubes

**(Total for Question 40 is 1 mark)**

**TOTAL FOR SECTION B IS 40 MARKS**

**TOTAL FOR PAPER IS 60 MARKS**

