

CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
NUMBER

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MATHEMATICS

0845/02

Paper 2

April 2018

45 minutes

Candidates answer on the Question Paper.

Additional Materials:

Pen
Pencil
Ruler

Protractor
Calculator
Tracing paper (optional)

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces at the top of this page.

Write in dark blue or black pen.

DO **NOT** WRITE IN ANY BARCODES.

Answer **all** questions.

The number of marks is given in brackets [] at the end of each question or part question.

You should show all your working in the booklet.

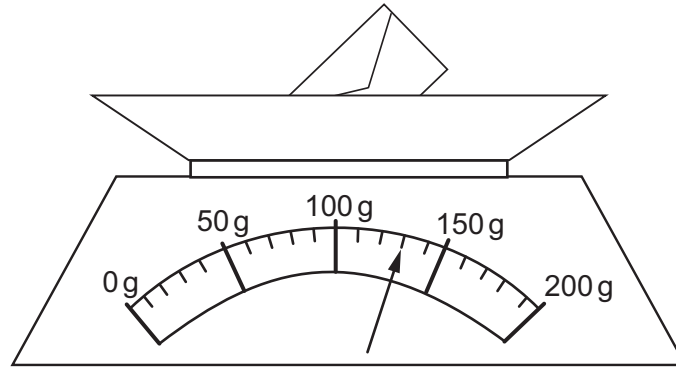
The total number of marks for this paper is 40.

This document consists of **16** printed pages.

1 Write four thousand and seventy six in figures.

..... [1]

2 Here are some scales which show the mass of a letter.



What is the mass of the letter?

.....g [1]

3 Here are some number cards.

10

20

40

50

70

Use each card once to make each side of the diagram total 120

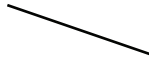
60		
		80
		30

[2]

4 Here are some statements about odd and even numbers.

Join each statement to the correct answer.

One has been done for you.

even + even  even

even - odd

odd + even odd

odd - odd

[1]

5 Here are four digit cards.

2

3

4











5

Use two of these cards to make a fraction equivalent to 0.5

$$\frac{\square}{\square}$$

[1]

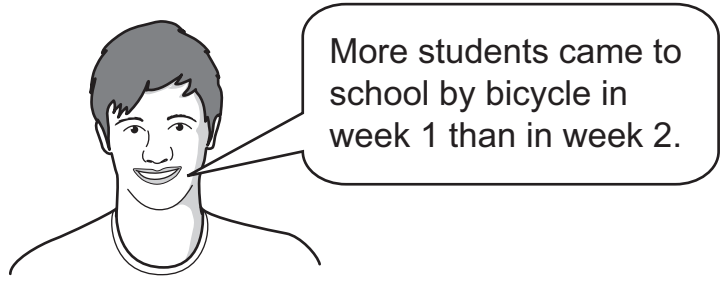
6 Class 4 did a survey of the different ways students come to school. Here are the results.

Week 1		Week 2	
 represents 5 students		 represents 10 students	
walk		walk	
bus		bus	
car		car	
bicycle		bicycle	

(a) How many students walked to school in week 2?

.....students [1]

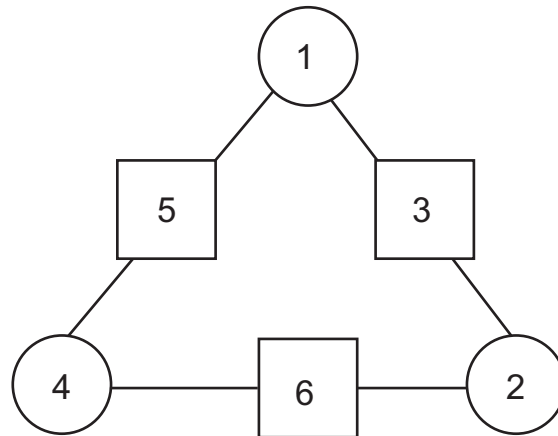
(b) Rajiv says,



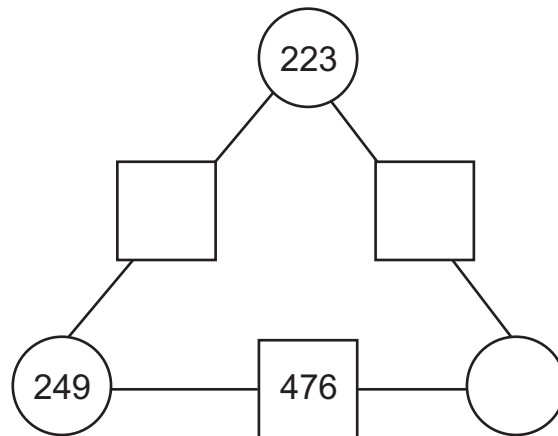
Explain why he is wrong.

.....
 [1]

- 7 Look at the number triangle.
The number in the square is the total of the numbers in the circles on either side.

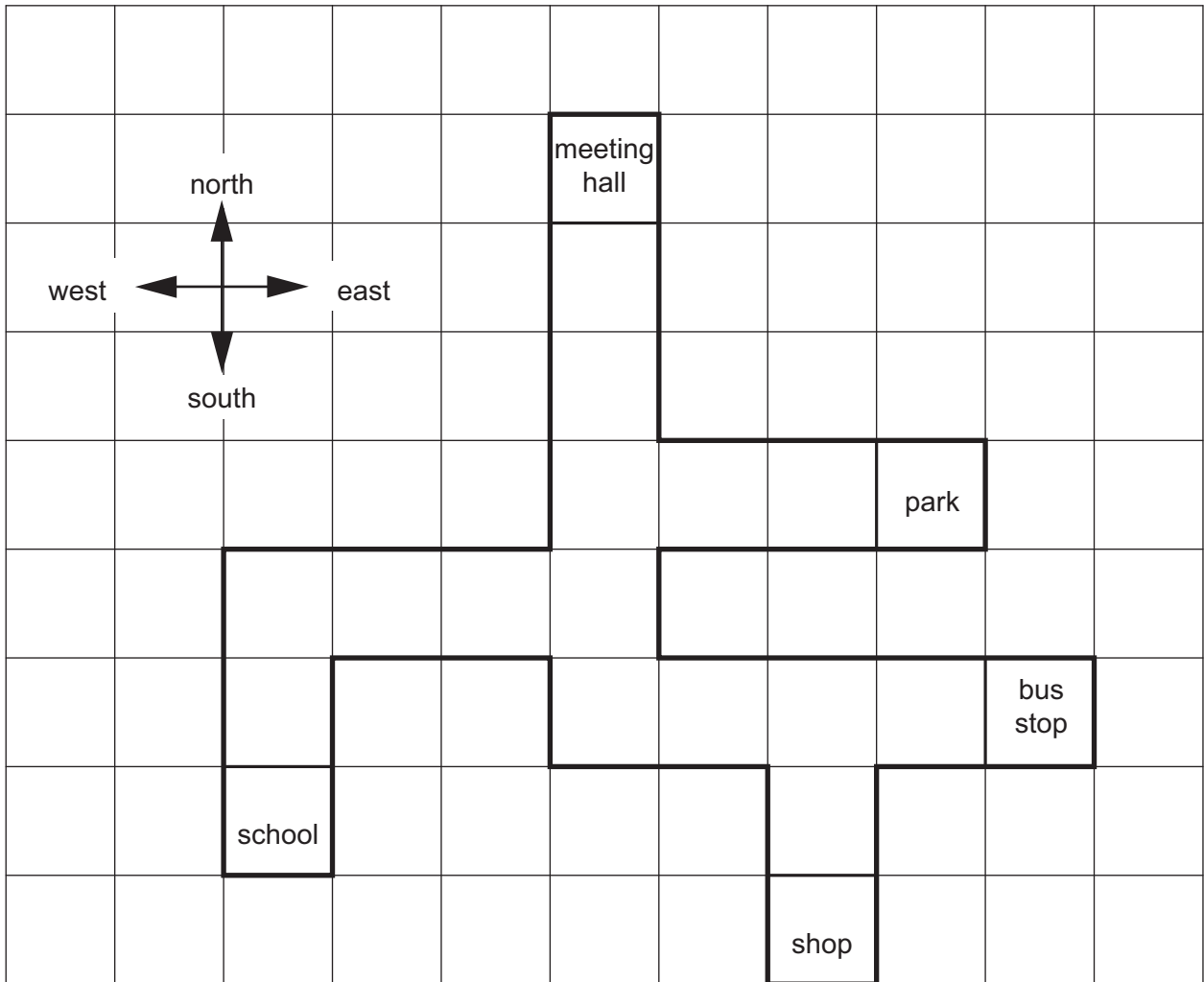


Complete this number triangle using the same rule.



[1]

8 Here is a plan of a village.



Complete the instructions to show how to get from the school **into** the park.

2 north

.....

.....

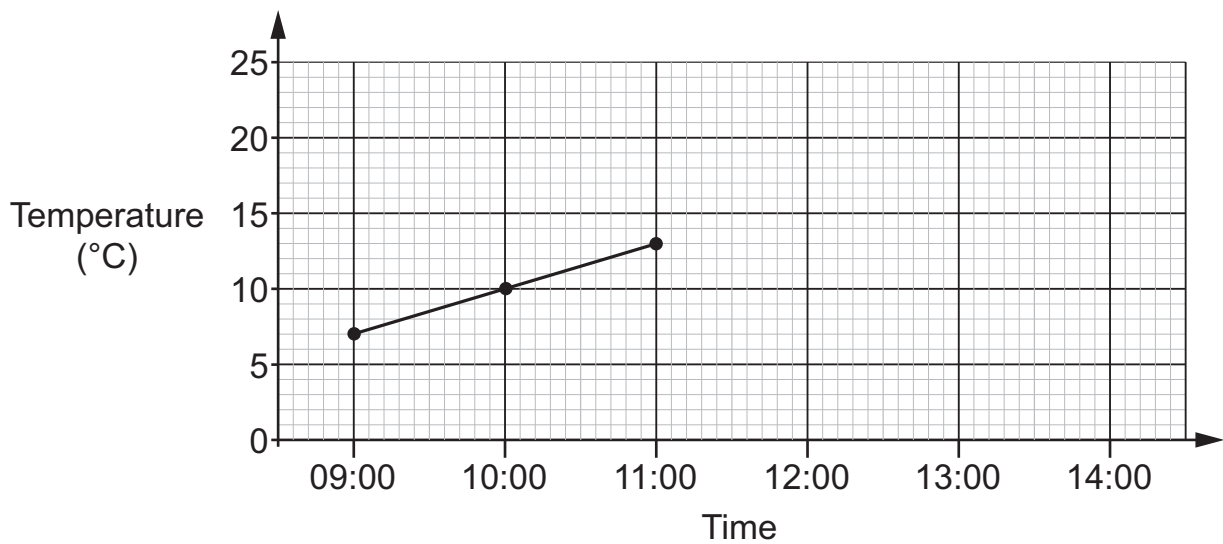
.....

[1]

- 9 Students from Class 5 record the temperature during the day at school. Here are their results.

Time	Temperature (°C)
09:00	7
10:00	10
11:00	13
12:00	15
13:00	20
14:00	18

The temperatures are plotted on this line graph.



Complete the graph.

[2]

10 Draw a ring around all of the square numbers in this list.

8 16 20 36 45 54 64 70

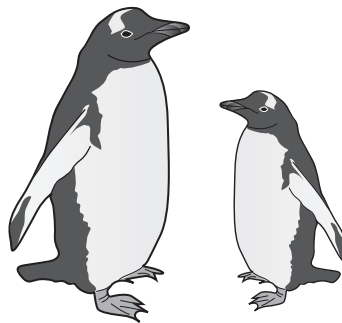
[1]

11 Round the answer to each of these calculations to the nearest **whole** number.

	To the nearest whole number
24.6×8	
$348 \div 7.5$	
$5091.5 \div 17$	
471.9×9.1	

[2]

12 Aiko feeds penguins at the zoo.



For every 5 fish a mother penguin is fed, a baby penguin is fed 2 fish.
Aiko feeds the mother penguin 20 fish.

How many fish does Aiko feed to the baby?

..... fish [1]

- 13** 74 boys sleep in tents at camp.
Each tent holds 9 boys.



How many tents are needed?

..... tents [1]

- 14** A piece of string is 1650 cm long.
It is cut into two unequal pieces.
One piece is 150 cm longer than the other.

How long is the smaller piece?

..... cm [1]

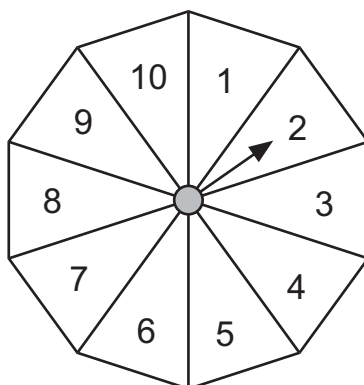
- 15 (a)** Change 33.4 metres to centimetres.

..... cm [1]

(b) Change 33.4 centimetres to metres.

..... m [1]

- 16 The diagram shows a fair spinner with 10 equal-sized sections. Each section is labelled with a number from 1 to 10



Anastasia spins the spinner.

- (a) Tick (✓) the word that describes the probability of each event.

Anastasia spins a number smaller than 8

Impossible Unlikely Even chance
 Likely Certain

Anastasia spins a number that is a multiple of 12

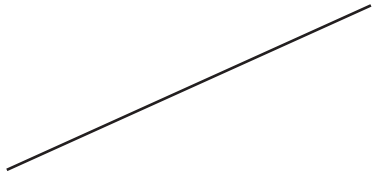
Impossible Unlikely Even chance
 Likely Certain

[1]

- (b) Give an example of an event connected with this spinner that has an **even chance** of happening.

..... [1]

- 17 Match the fractions with the equivalent percentages.
One has been done for you.

$\frac{2}{10}$		50%
$\frac{1}{2}$		20%
$\frac{68}{100}$		25%
$\frac{3}{4}$		75%
		68%

[1]

- 18 These calculations show the factors of 10

$$1 \times 10 = 10$$

$$2 \times 5 = 10$$

Write calculations to show the factors of 42

[2]

19 Complete the following.

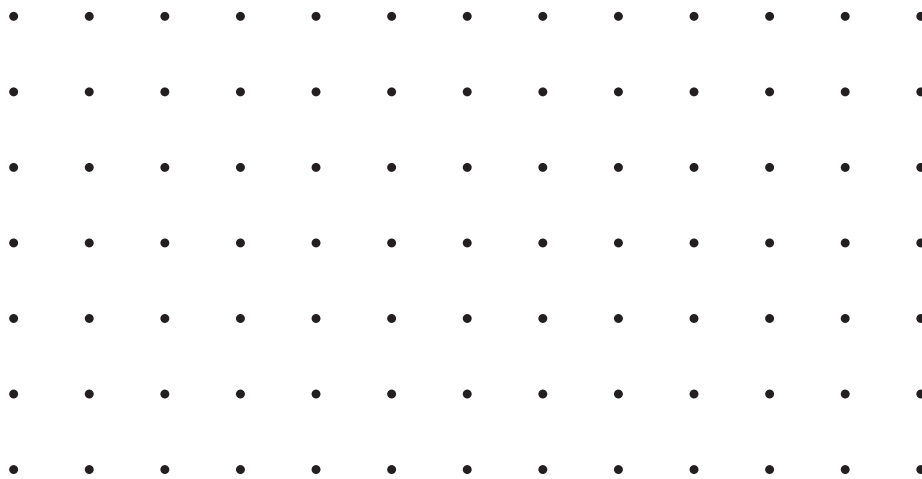
$$40 \times 50 = \boxed{} \times 100$$

$$300 \times 60 = 200 \times \boxed{}$$

[1]

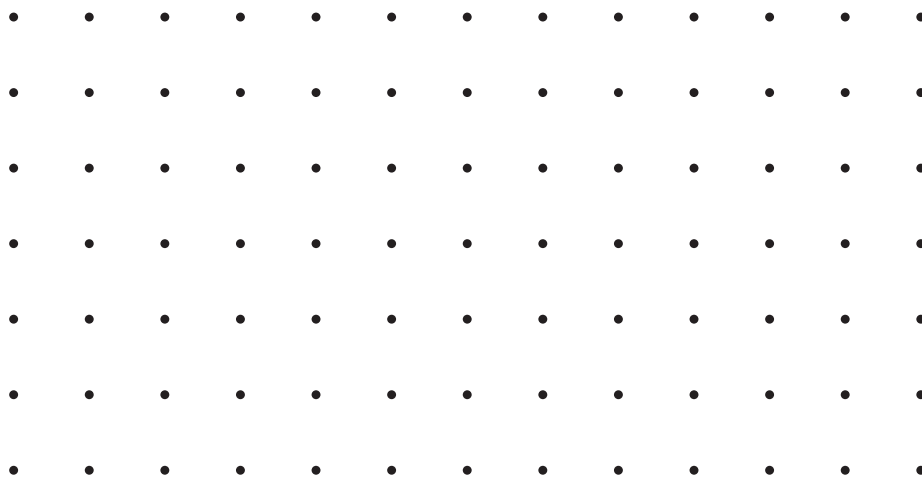
20 Here are two 1 cm dotted grids.

(a) Join dots to draw a rectangle with perimeter 12 cm.



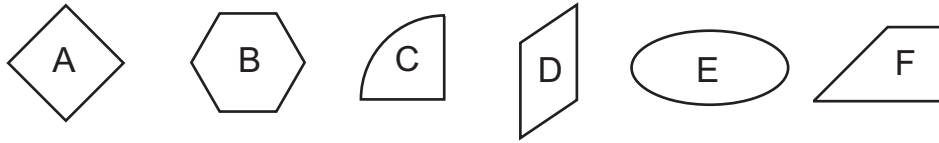
[1]

(b) Join dots to draw a rectangle with an area of 12 cm².



[1]

21 Here are six shapes.



Write the letters of the shapes in the correct place on the Carroll diagram. One has been done for you.

	polygon	not a polygon
has right angles	A	
does not have right angles		

[2]

22 A single ticket for a journey costs \$1.25
 25 single tickets can be bought in a book for \$27
 Lily makes 25 journeys.

How much does Lily save by using a book of tickets?
 Show your working.

\$ [2]

23 Here is a recipe for onion soup.

<p>Onion soup Serves 4</p> <p>40g butter</p> <p>2 large onions</p> <p>850 ml stock</p> <p>3 teaspoons flour</p>

Oliver makes soup for 6 people.

Show how he changes the recipe.

<p>Onion soup Serves 6</p> <p>..... g butter</p> <p>..... large onions</p> <p>..... ml stock</p> <p>..... teaspoons flour</p>

[2]

24 A mango costs \$1.50

An apple costs $\frac{3}{10}$ of the cost of a mango.

What is the cost of 2 mangos and 5 apples?
Show your working.

\$ [2]

25 Look at these signs.

< > =

Write one of the signs in each box to complete these statements.

$$20 \div 5 \quad \square \quad \frac{1}{4}$$

$$0.3 \quad \square \quad \frac{1}{3}$$

[1]

26 Here is a grid of numbers.

19	18	9	13
17	15	6	4
7	3	11	12
20	1	2	5

Draw a path between the two shaded numbers passing only through prime numbers.

You may not move diagonally.

[1]

27 Put brackets into this calculation to make it correct.

$$6 \times 1.5 + 4.9 \times 4 = 55.6$$

[1]

28 Four children take part in a swimming relay race.

The table shows their times in the race.

Name	Time taken (seconds)
Manjit	92.4
Pierre	86.7
Safia	85.1
Chen	91.8

Work out the **total** time taken by the team in minutes and seconds.

..... minutes seconds [1]

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