CANDIDATE NAME	

CENTRE NUMBER					CANDIDATE NUMBER			

MATHEMATICS 0845/02

Paper 2

April 2016

45 minutes

Candidates answer on the Question Paper.

Additional Materials:	Pen	Protractor
	Pencil	Calculator
	Ruler	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 **14** printed pages and **2** blank pages.

CAMBRIDGE
International Examinations

1 The clock shows the time Alan arrives at school one **morning**.

Tick (✓) the digital clock that shows this time.

1:50 am	2:09 pm	2:50 am	10:09 am
☐	☐	☐	☐

[1]

2 Draw a ring around all the lengths that are less than half a metre.

60 cm   43 cm   54 cm   26 cm   87 cm

[1]

3 Write in the missing numbers.

(a) [   ] ÷ 12 = 27   [1]

(b) 16 × [   ] = 384   [1]

4 This pictogram shows how many cups of juice were sold in a day.

Apple	(cup)(cup)(cup)(cup)(cup)(cup)(cup)
Cranberry	(cup)(cup)(cup)(cup)
Grape	(cup)(cup)(cup)
Mango	(cup)(cup)
Orange	(cup)(cup)(cup)(cup)(cup)(cup)(cup)(cup)(cup)(cup)

(cup) represents 5 cups

(a) How many cups of apple juice were sold?

.... cups   [1]

(b) How many **more** cups of orange were sold than mango?
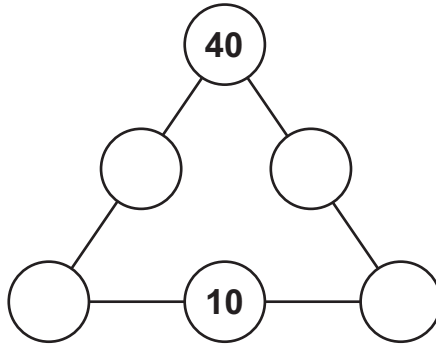
.... cups   [1]

5 A doll's house is $\frac{1}{8}$ the size of a real house.

The length of the doll's house is 1.5 m.

How long is the real house?

.....................................m   [1]

6 The numbers on each side of the triangle add up to 120

Use 4 **different** multiples of 10 to complete the diagram. [2]

7 4 children share 3 cakes equally.

How much cake will 1 child get?

.... cake [1]

8 Here are four digit cards.

| 4 | | 7 | | 2 | | 6 |

Use each card once to complete this calculation.

☐.☐ + ☐.☐ = 10

[1]

9 A bottle of orange juice contains 230 m*l*.

Two of these bottles are poured into this jug.
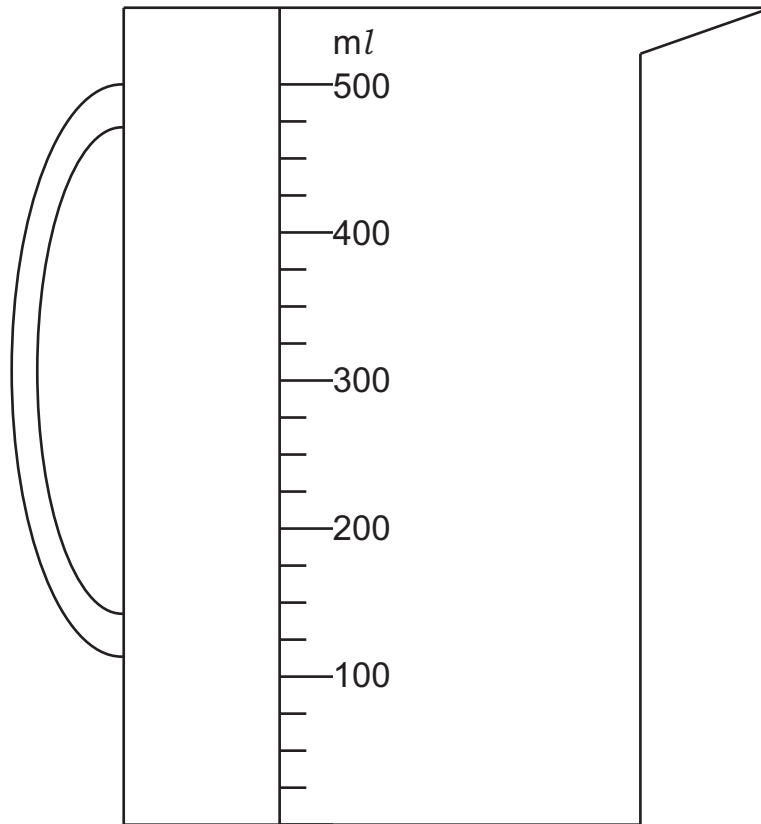
Draw an arrow (→) to show the level of juice in the jug.

[1]

10 Here are some statements about odd and even numbers.

Tick (✓) the correct box next to each statement.

The first one has been done for you.

	True	Not true
odd + odd = odd		✓
even – odd = even		
odd × even = even		

[1]

11 There are 34 balloons in a pack.

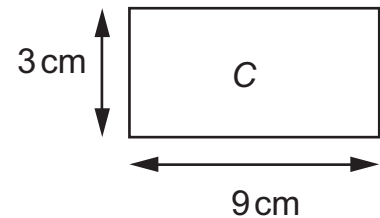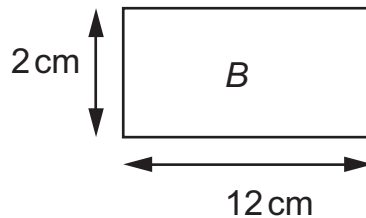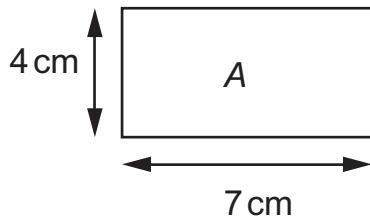Sharifa has two packs.

Kimi and Neera share a pack equally.

How many balloons does each child have?

Sharifa has .... balloons

Kimi has .... balloons

Neera has .... balloons   [1]

12 Look at the three rectangles.

4 cm | A | 7 cm

2 cm | B | 12 cm

3 cm | C | 9 cm

Not drawn to scale

Which rectangle has the largest area?

Show calculations to explain your answer.

.... [2]

13 Here is a recipe for Choco Milkshake.

Serves 2
Makes 400 m*l*

2 scoops ice cream
250 m*l* milk
30 m*l* melted chocolate

(a) Ron makes enough milkshake for 6 people.

How much melted chocolate does he use?

.... m*l* [1]

(b) Ron has 600 m*l* of milkshake left.

How much ice cream does it contain?

.... scoops [1]

14 Draw a ring around the square number.

5   10   18   26   36   42

[1]

8

15 Look at the diagram.

Not drawn to scale
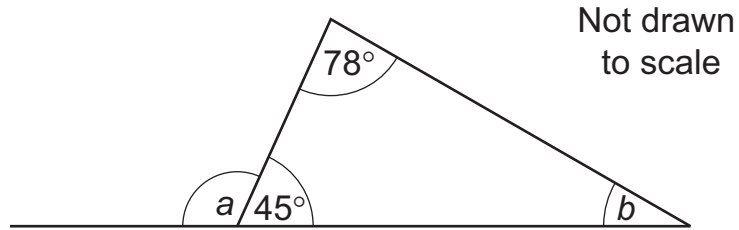
(a) Calculate the size of angle *a*.

a = ...° [1]

(b) Calculate the size of angle *b.*

b = ...° [1]

16 Put one of these signs into each box to make the calculation correct.

=   >   <

4 × 5 ☐ 3 × 8

13 × 17 ☐ 15 × 15

256 ÷ 8 ☐ 6 + 7 + 8 + 9

[1]

17 Calculate 158 ÷ 5

(a) Give your answer as a decimal.

.... [1]

(b) Rewrite the answer as a mixed number.

.... [1]

18 Write the missing number in the box.

$$37.5 \times 6 = 25 \times \boxed{}$$

[1]

19 Here are four calculations.

$$16.4 \times 3.3$$

$$140.643 \div 2.7$$

$$167.36 \div 3.2$$

$$17.6 \times 3$$

(a) Which calculation gives the **largest** answer?

.... [1]

(b) Which calculation gives the **smallest** answer?

.... [1]

20 The table shows the population of a small town by age.

Age range	Number of people
0 – 19	3200
20 – 39	8500
40 – 59	6920
60 – 79	2418
80+	1005

The bar chart shows the same information.

Label the bar chart.

Number of people

Age range
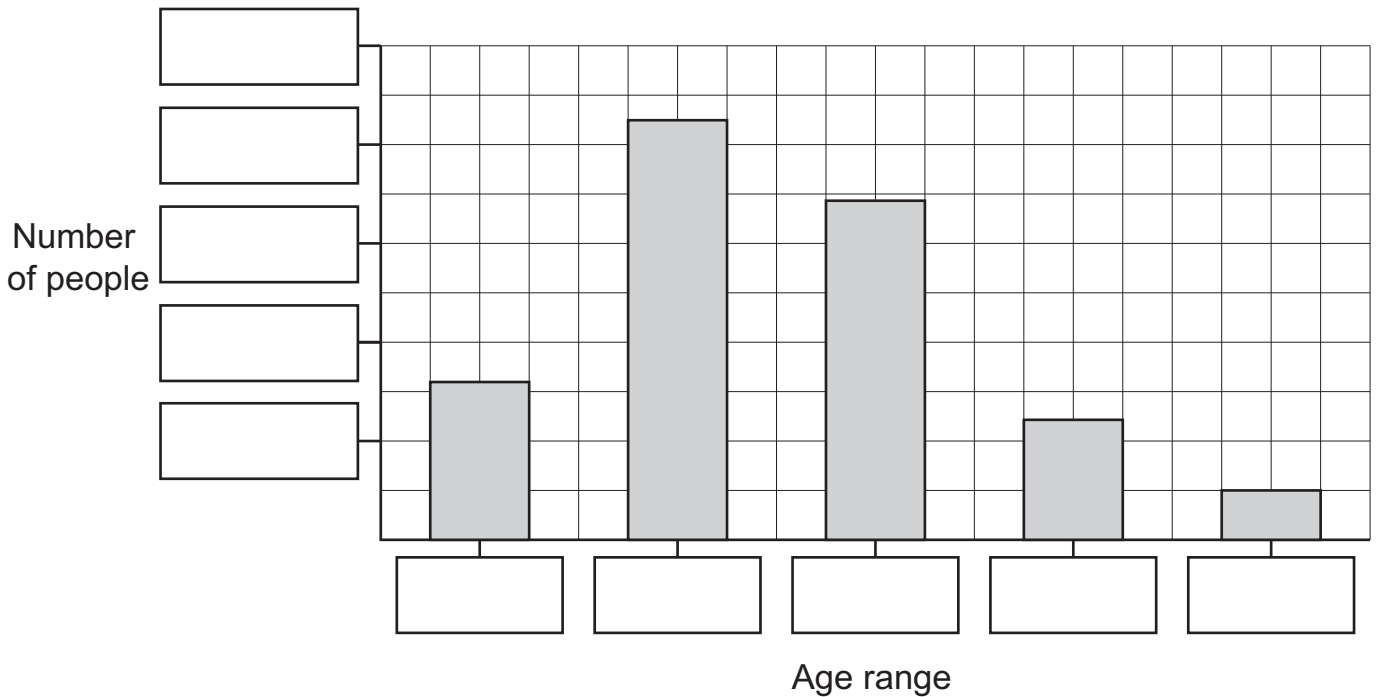
[2]

21 Here is part of a bus timetable.

Fenton	08 38	09 25	10 06	10 50
Kibstock	09 07	10 02	10 38	11 25
Pentwell	09 35	10 37	11 05	11 47
Leadtown	10 11	11 09	11 48	12 14

(a) Mr Hasan travels from Fenton to Leadtown.
He catches the 08 38 bus.

How long will his journey last?

Give units with your answer.

.... [1]

(b) Mrs Shah lives in Kibstock and needs to be in Pentwell by 11 35
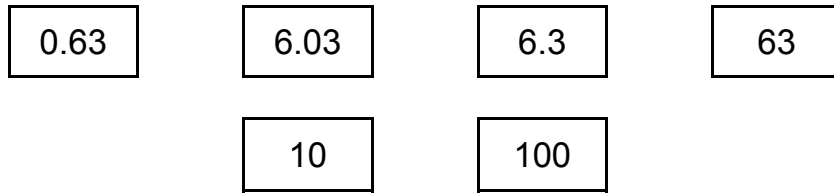
What is the latest bus she can catch from Kibstock?

.... [1]

22 The product of two **prime** numbers is 39

What are the two numbers?

.... [1]

23 Here are six number cards.

| 0.63 | 6.03 | 6.3 | 63 |

| 10 | 100 |

Use four of these cards to complete the calculations.
You can only use each card once.

0.63 × ⬚ = ⬚

⬚ ÷ 100 = ⬚

[1]

24 Jamie chooses two 2-digit numbers.

They are both multiples of 10

Their product is 5600

What numbers could they be?

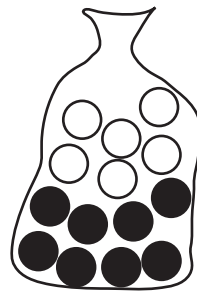.................................... and .... [1]

25 Here are four bags containing black and white beads.
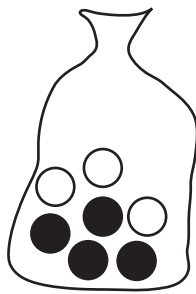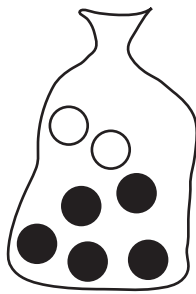
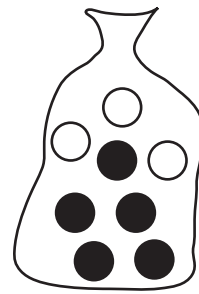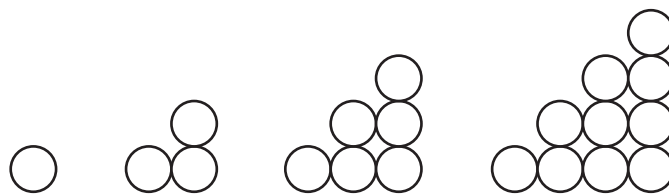|			
bag A	bag B	bag C	bag D

Complete the following sentences.

(a) The probability of picking a black bead is the same from bag .... as

from bag ....

[1]

(b) The best chance of picking a black bead is from bag ....

[1]

26 Rebekah is making a number pattern using counters.

(a) Which numbers does the pattern represent?

.... [1]

(b) How many counters will there be in the 6th pattern?

.... [1]

27 Write **all** the three-digit numbers between 100 and 160 which are

- divisible by 2
  and
- **not** divisible by 4
  and
- divisible by 5

.... [2]

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16

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