CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

MATHEMATICS **0842/02**

Paper 2 **May/June 2008**

45 minutes

Candidates answer on the Question Paper.

Additional Materials: Pen   Protractor
                     Pencil   Calculator
                     Ruler

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.
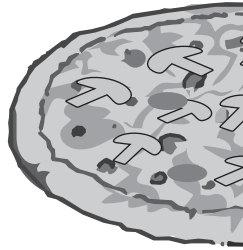You should show all your working in the booklet.

For Examiner's Use	
Page	**Mark**
1	
2	
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4	
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7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
Total	

This document consists of **17** printed pages and **3** blank pages.

UNIVERSITY *of* CAMBRIDGE
International Examinations

[Turn over

1 Here is half a pizza.

How many quarters are equal to a half?
Tick (✓) the correct image below.
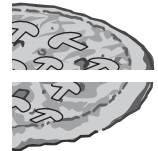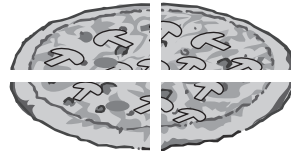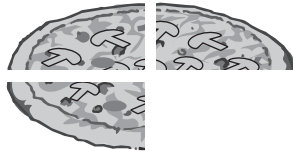
[1]

2 Look at the two sets of fractions below.
Draw lines to match the fraction from Set A with its equivalent fraction from Set B.

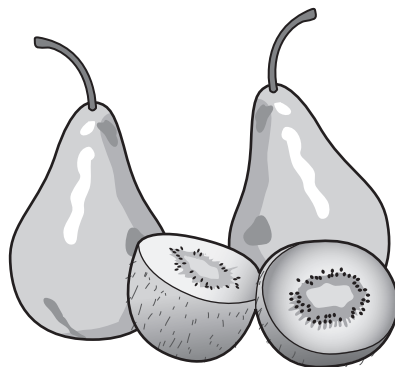| Set A	Set B
$\frac{2}{3}$	$\frac{1}{3}$
$\frac{5}{25}$	$\frac{12}{15}$
$\frac{4}{5}$	$\frac{6}{9}$
$\frac{2}{6}$	$\frac{2}{10}$

[2]

Page Total

3 Complete this calculation:

$$60 \div \boxed{} = 5$$

[1]

4 Ahmed buys two pears costing 16 cents each and a kiwi fruit costing 15 cents.
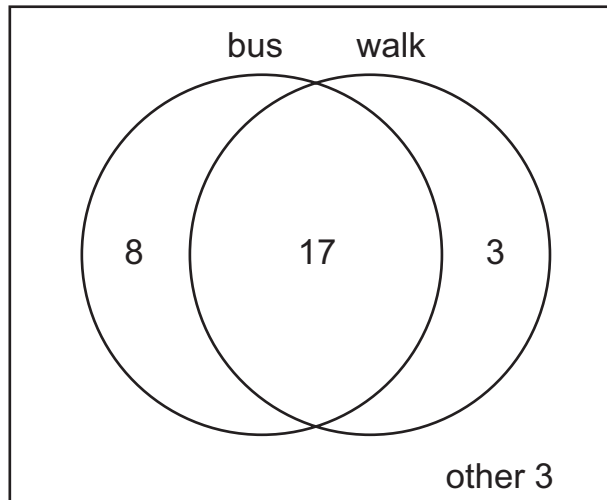

(a) How much does the fruit cost in total?

.... [1]

(b) How much change does he get from $2.00?

.... [1]

Page Total

                            [Turn over

5 Jason asked Class 5 how they travel to school.
The results are shown in this pie chart.

(a) How many children walk to school?

.... [1]

(b) How many children do **not** use the bus to travel to school?

.... [1]

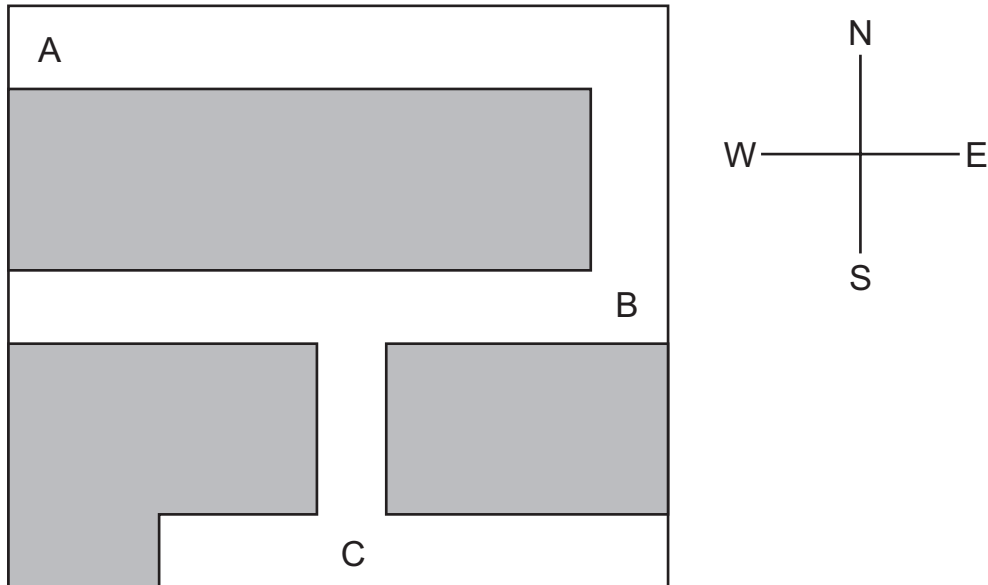**6** Look at these 2D shapes.
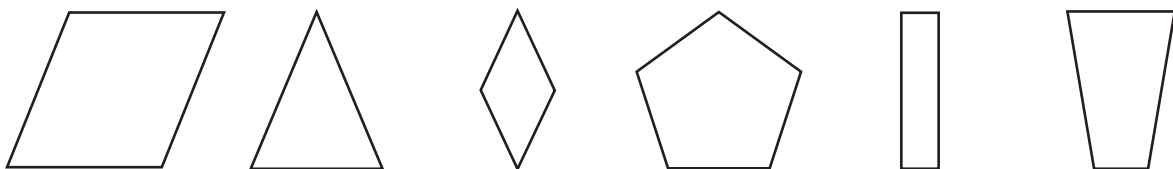
Tick (✓) any shapes that have four vertices.

[1]

Page Total

7 Here is the plan of some paths.
Give directions to go from A to B, then from B to C on this plan.

A

B

C

N

W —————— E

S

A to B .... then ....

B to C .... then .... [1]
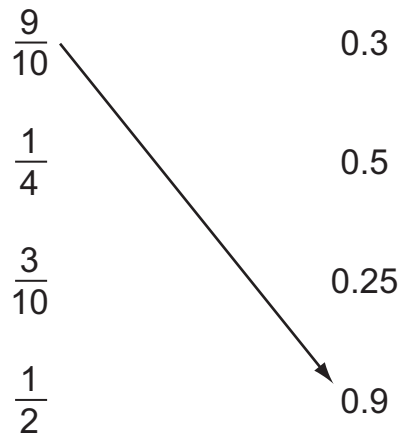
8 Lisa says:

"In **September** we return to school.
In **February** it sometimes snows.
In **November** it is my birthday.
In **April** we pick Spring flowers.
In **July** we visit the beach."

Arrange the months in the correct order. The last one has been done for you.
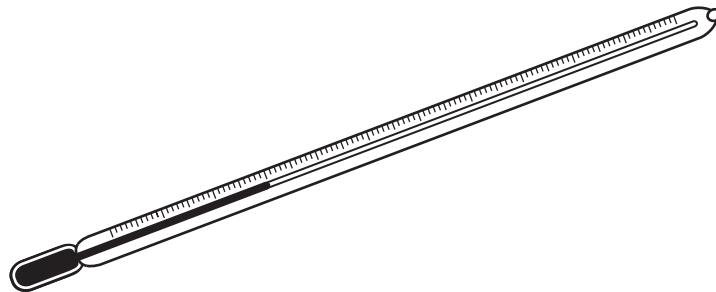
				November

[1]

Page Total

9 Draw lines to match the decimals to the fractions.
One has been done for you.

$\frac{9}{10}$ 0.3

$\frac{1}{4}$ 0.5

$\frac{3}{10}$ 0.25

$\frac{1}{2}$ 0.9

[1]

10 In Russia, a scientist measures the temperature each hour.
The temperature changes by the same number of degrees each hour.

(a) What should the next measurement be?

6°C   3°C   0°C   ....°C   [1]

Page Total

(b) A month later the temperature is measured each 15 minutes.
The temperature still changes the same amount each time.

What is the next measurement?

5°C   2°C   -1°C   ....°C   [1]

11 Complete the following calculations:

(a)   0.4 + 0.84 = ...   [1]

(b)   0.25 + ...= 0.9   [1]

12 Lily is given a calculation to do:

2706 + 5893

(a) Give an estimate of the answer, using rounding.
You may get a mark if you show your working.

.... [1]

(b) Now calculate the correct answer.
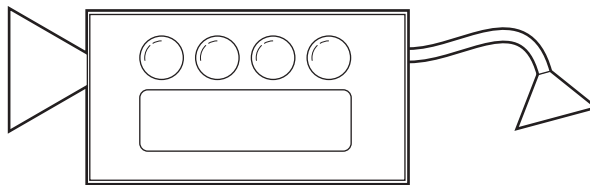
.... [1]

Page Total

13 Usha's's parents pay her to have a set of 12 driving lessons.
Each lesson costs $22, but the teacher offers a 10% discount.

How much do the lessons cost?

Use this space to show your working.

$ .... [2]

14 Here is a function machine:

When you put in a number, it multiplies it by 3, then subtracts 2.

(a) What number would come out if you put in the number 7?

.... [1]

(b) What number would you have put in to get the answer 7?

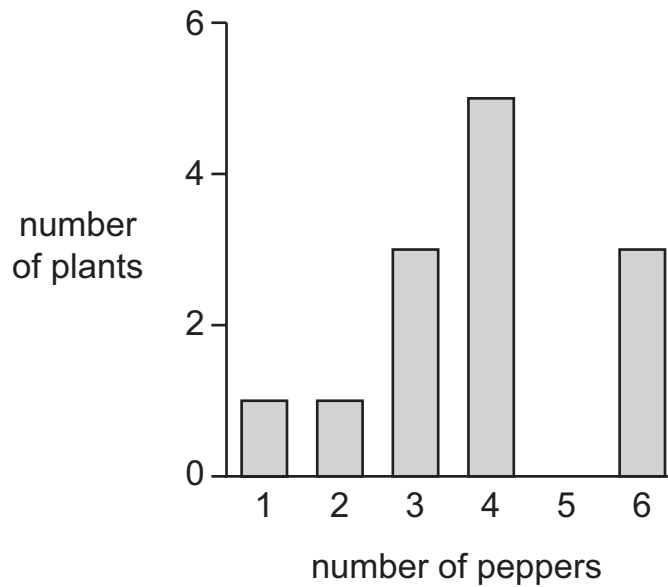................................... [1]

Page Total

15 Sajid has 15 red pepper plants.
He measures the number of peppers on each plant.

The numbers are: 4, 6, 3, 1, 3, 4, 5, 4, 6, 4, 5, 3, 4, 6, 2

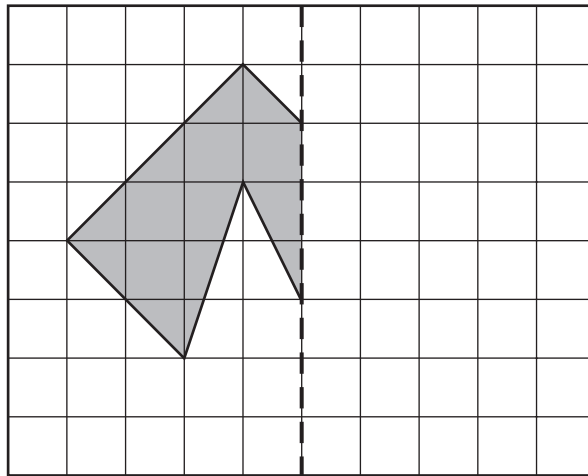**(a)** What is the modal number of peppers?

.... [1]

(b) Draw the missing bar in this graph of the results.

[1]

Page Total

16 Half of a symmetrical shape has been drawn below.
Draw the other half to complete the symmetrical shape.

[1]

17 Bjorg describes a shape:

"My shape is 3D. It has 6 faces. 2 faces are square; the other 4 faces are rectangular. The shape has 8 vertices and 12 edges."
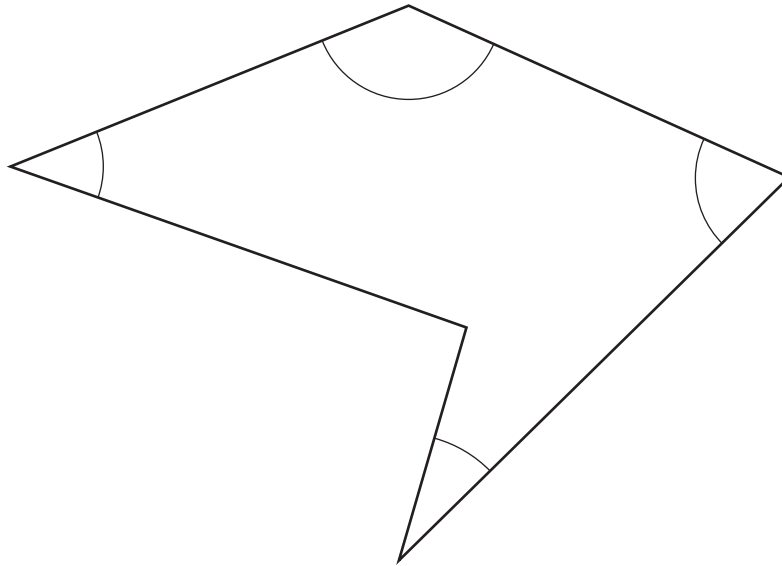
(a) What shape is Bjorg describing?

.... [1]

(b) Describe a regular hexagon to Bjorg.

....

.... [1]

Page Total

18 This shape has four angles shown.
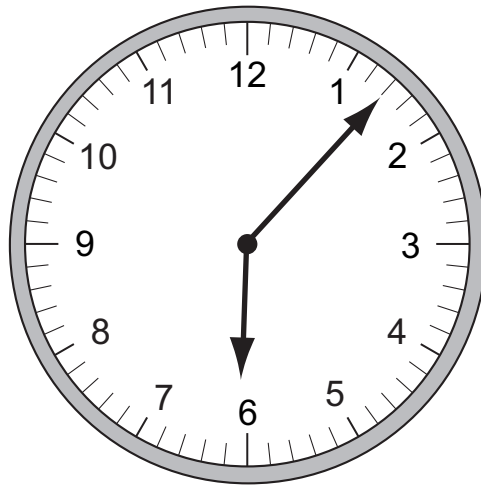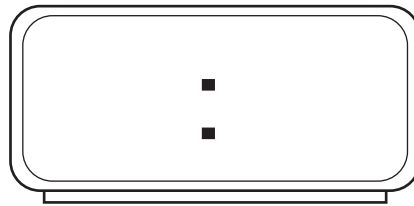Label the angles **a, b, c** and **d,** in order from smallest to largest.

[1]

19 (a) What time is shown on this analogue clock?
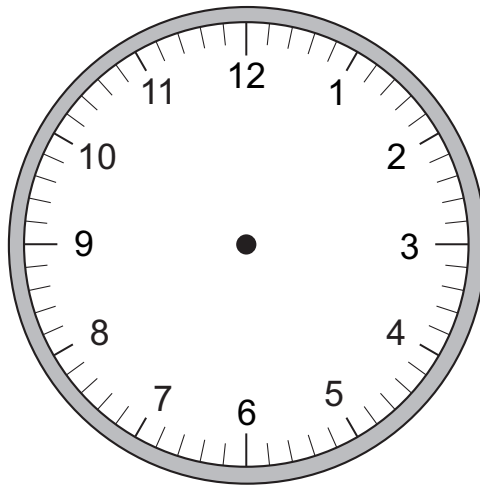

Give your answer in digital format.

[1]

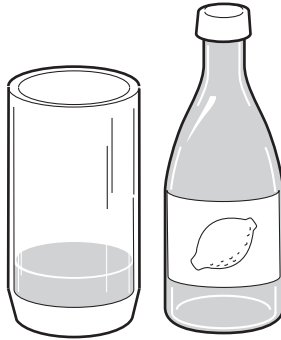0842/02/M/J/08

(b) What time is shown on this digital clock?

8:23

Show the time on this analogue clock face:

[1]

Page Total

 [Turn over

20 Hong makes a drink of lemon.

He mixes the lemon and water in the ratio 2 : 9

If he uses 100 ml of lemon, how much water does he need?

....ml   [1]

21 Find the answer to this calculation:

(16 – 7) x 14 + 2.5 =

[1]

Page Total

22 William does a calculation:

```
              48 r1
        7 ) 1597
           1400    20
            197
            140    20
             57
             56     8
              1
```

Check if he was right or wrong.
If you think he was wrong, explain his mistake and say what he should have done
to get the correct answer.

.... [2]

23 There are 2 sandwiches (s) and 3 tomatoes (t) in a packed lunch (P).

Express this relationship in a formula using letters.

P = ... [1]

24 A coin is tossed 10 times. The results are: Heads 8: Tails 2

The coin is tossed again.
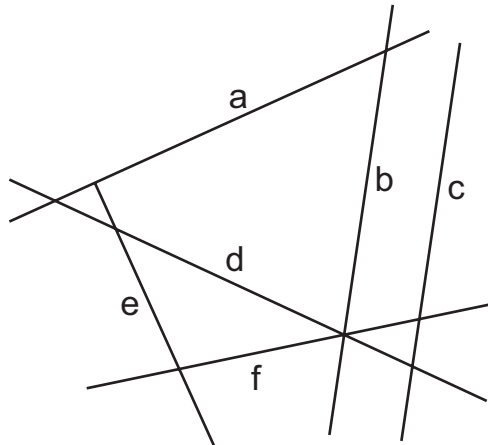What is the probability of it landing on a head?

.... [1]

Page Total

25 Draw a translation of shape **A** by (2, 3).
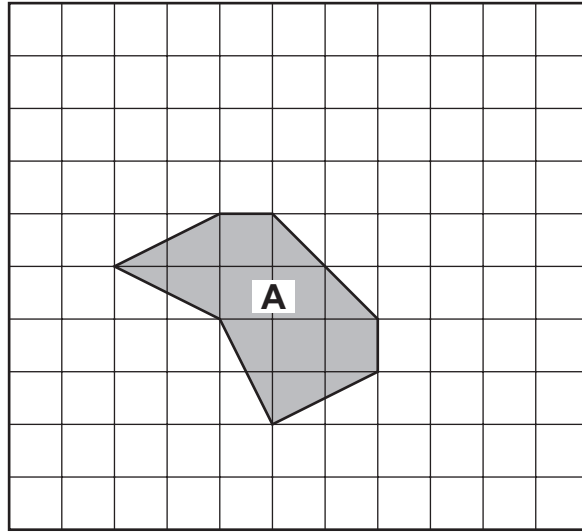
[1]

26 The lines on this diagram are labelled.

Which lines are perpendicular?

.... [1]

Page Total

27 Calculate the area of this rectangle:

NOT TO SCALE

12.4 cm

18 cm

Include the correct units with your answer.

.... [1]

Page Total

18

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20

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