Ma

YEAR 7

LEVELS 3–4

2007

Mathematics test

Paper 2

Calculator allowed

First name _____

Last name _____

School _____

Remember

- The test is 45 minutes long.
- You **may** use a calculator for any question in this test.
- You will need: pen, pencil, rubber, ruler, angle measurer or protractor and a calculator.
- This test starts with easier questions.
- Try to answer all the questions.
- Write all your answers and working on the test paper – do not use any rough paper. Marks may be awarded for working.
- Check your work carefully.
- Ask your teacher if you are not sure what to do.

For marker's use only

TOTAL MARKS	
Borderline check	

Instructions

Answers

This means write down your answer or show your working and write down your answer.

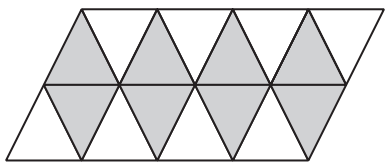
Calculators

You **may** use a calculator to answer any question in this test.

1 Which of these coins make **exactly £1.10**?
Tick (✓) them.

1 mark

2 Look at the shape.



What **fraction** of the shape is shaded?

1 mark

3 The table shows how many people visit a museum in five weeks.

Week	Number of visitors	Rounded to the **nearest hundred**
1	453	500
2	328	
3	557	
4	299	
5	356	

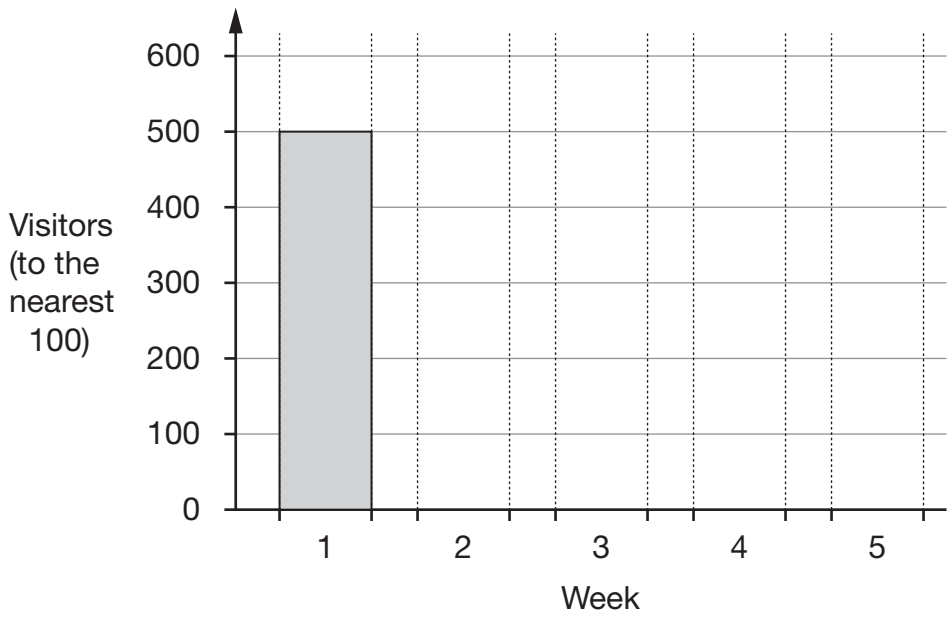
1 mark

(a) Complete the table above by rounding each number to the **nearest hundred**.

The first one is done for you.

(b) Now use the **rounded values** to complete the bar chart below.

The first bar is done for you.



2 marks

4 Tick (✓) the best estimate for each of the following.

(a) The height of a door.

☐ 2 millimetres ☐ 2 centimetres

☐ 2 metres ☐ 2 kilometres

1 mark

(b) The length of a pen.

☐ 14 millimetres ☐ 14 centimetres

☐ 14 metres ☐ 14 kilometres

1 mark

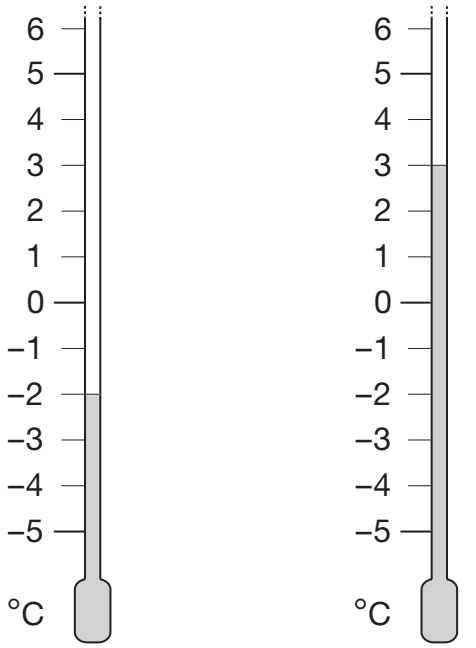
(c) The distance between Leeds and Manchester.

☐ 64 millimetres ☐ 64 centimetres

☐ 64 metres ☐ 64 kilometres

1 mark

5 The thermometers show the temperature at different times on one day.



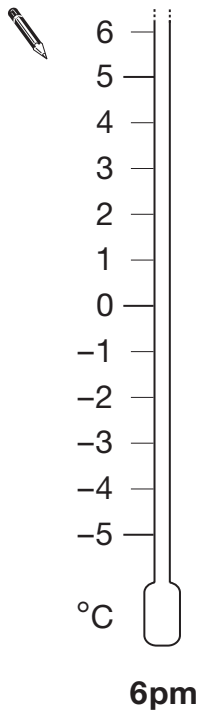
(a) Write the missing number below.

From **6am** to **1pm** the temperature went up by _____ °C

1 mark

(b) From **1pm** to **6pm** the temperature **went down by 7°C**

Shade the thermometer to show the temperature at 6pm.



1 mark

6 Here is part of a number grid.

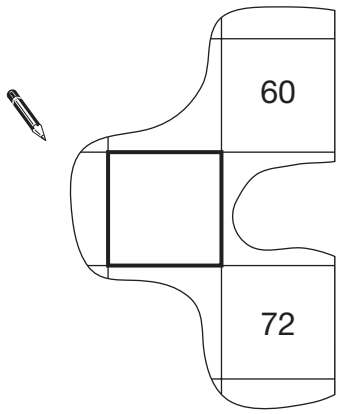
1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24

(a) What number is in the square **below** the number **24**?

1 mark

(b) Here is another part of the **same grid**.

Write in the missing number.

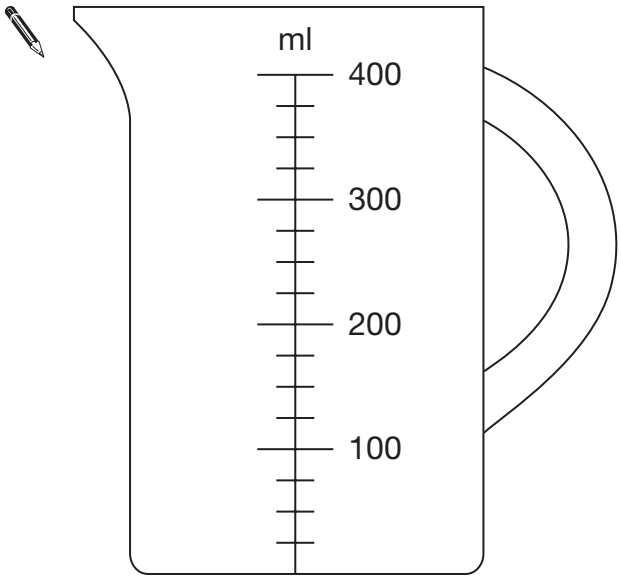


1 mark

7 Raj is making a cake.

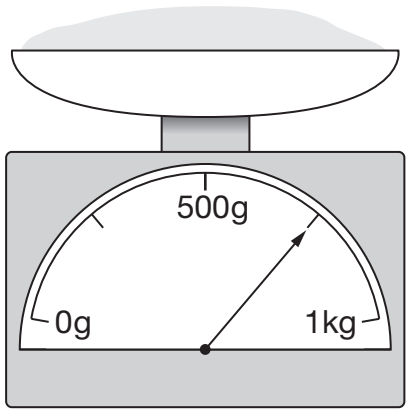
He pours 275ml of milk into a jug.

(a) Draw a line on the jug to show the level of milk.



1 mark

(b) The scales below show how much flour he uses.



How much flour does Raj use?

_____ g

1 mark

(c) Raj put the cake in the oven at 4:00pm.

He took the cake out of the oven after $1\frac{1}{2}$ hours.

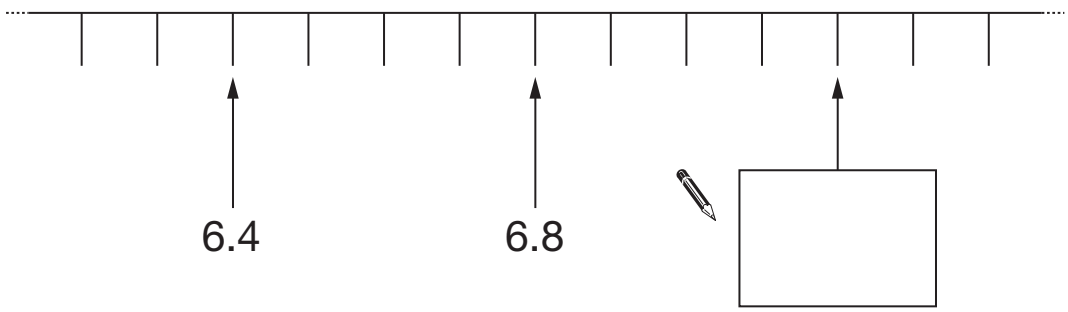
At what time did he take the cake out of the oven?

_____ pm

1 mark

8 Look at the number line below.

Write the missing number in the box.

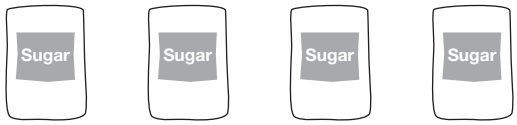


1 mark

9 This question is about the number of bags of sugar you could buy with £10

Key:

= 4 bags

Year	Number of bags
1995	
1999	

(a) In 1995 you could buy 16 bags of sugar.

How many bags of sugar could you buy in **1999**?

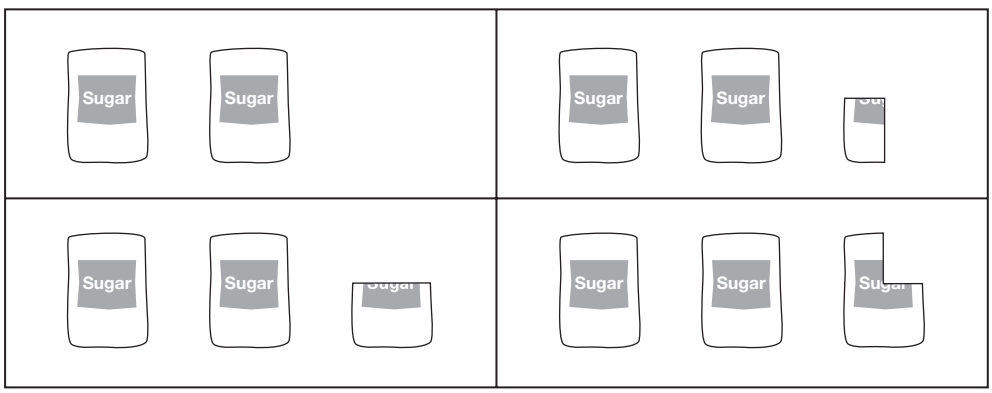
_____

1 mark

(b) In 2003 you could buy 9 bags of sugar.

Which drawing below represents **9 bags** of sugar?

Tick (✓) the correct drawing.



1 mark

10 (a) Write the missing number.

26 × ☐ = 624

1 mark

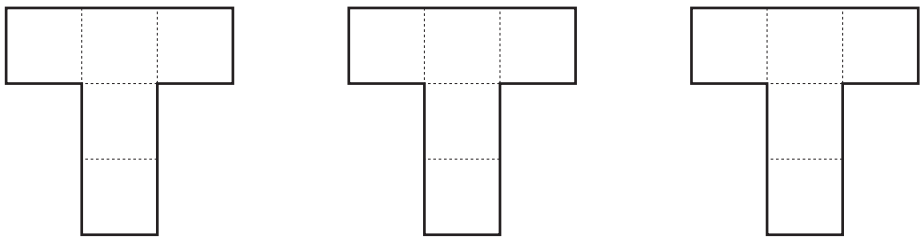
(b) Now write what the missing numbers below could be.

Each number must be **greater than 10**

☐ × ☐ = 312

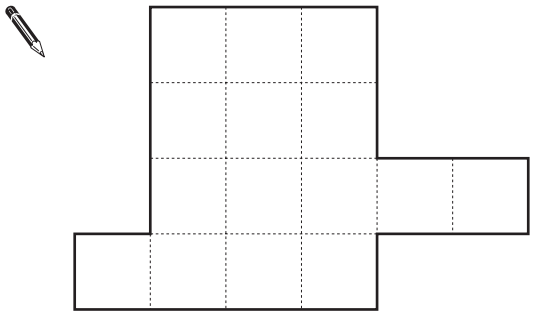
1 mark

11 Here are three T-shapes drawn on centimetre square grids.



(a) The three T-shapes fit together to make shape A.

Show the three T-shapes on the diagram below.



shape A

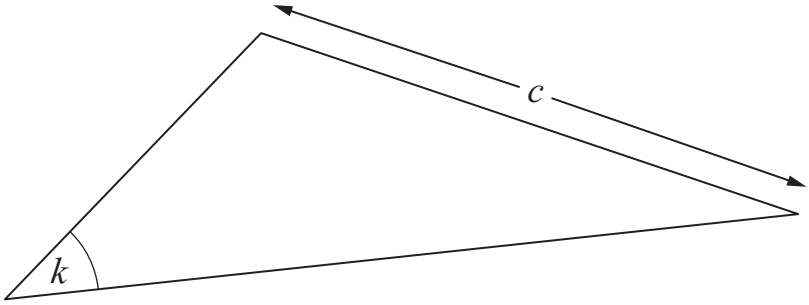
1 mark

(b) What is the **total area** of shape A?

_____ cm^2

1 mark

12 Look at the triangle.



(a) Measure accurately length c

c = _____ cm

1 mark

(b) Measure accurately angle k

k = _____ °

1 mark

13 Look at the fraction diagram.

1					
$\frac{1}{2}$			$\frac{1}{2}$		
$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$	
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

Write the missing numbers in the boxes below.

$$\boxed{1} = \frac{\square}{\boxed{6}}$$

1 mark

$$\frac{\boxed{1}}{\boxed{2}} = \frac{\square}{\boxed{6}}$$

1 mark

$$\frac{\square}{\boxed{3}} = \frac{\boxed{4}}{\boxed{6}}$$

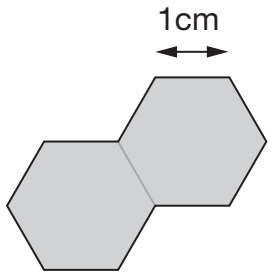
1 mark

14 All the hexagons in this question are the same size.

Each side of a hexagon is **1cm** long.

(a) I put **two hexagons** together to make this shape.

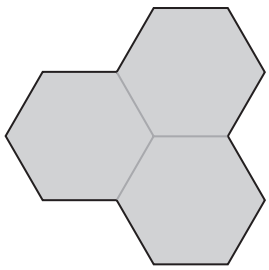
What is the **perimeter** of the shape?



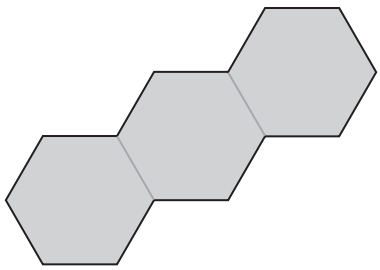
_____ cm

1 mark

(b) I put three hexagons together to make different shapes.



Shape **A**



Shape **B**

Which shape has the **smaller** perimeter?

Tick (✓) the correct box.

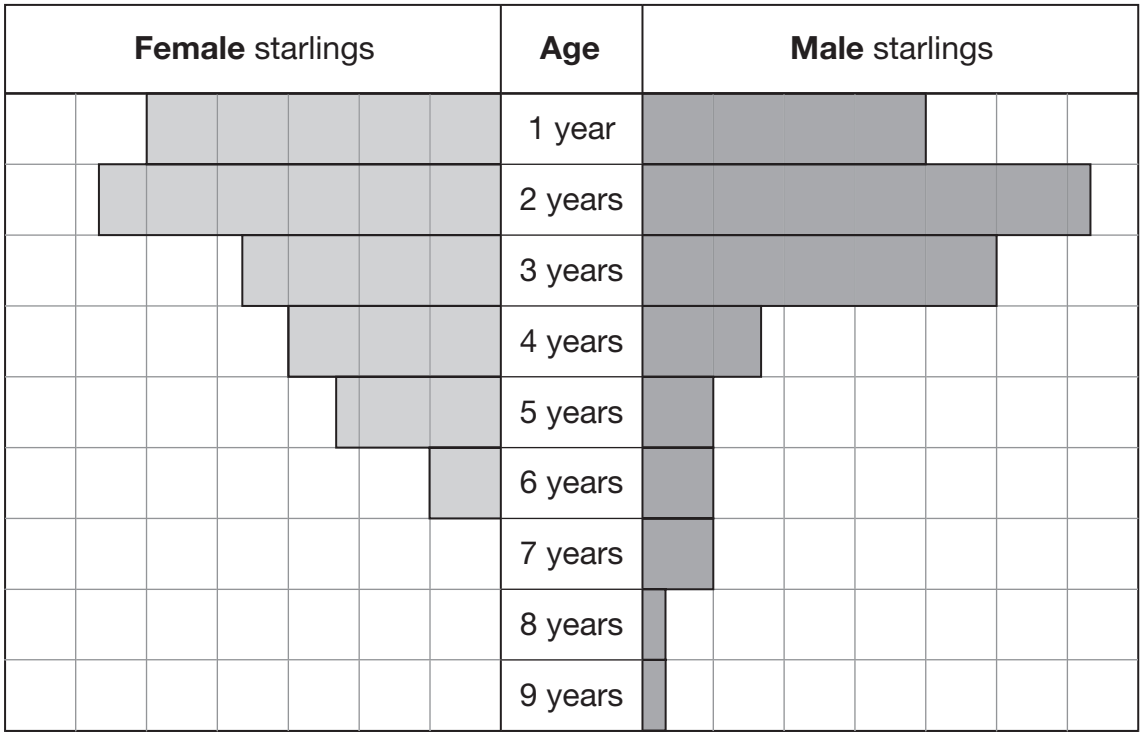
☐ A ☐ B ☐ Both the same

Explain how you know.

1 mark

15 Starlings are birds that live in groups.

The chart shows the **ages** of a group of starlings.



In the chart, each square represents **3** starlings.

(a) How many **female** starlings are aged **4 years**?

_____ female

1 mark

(b) How many **male** starlings are aged **4 years**?

_____ male

1 mark

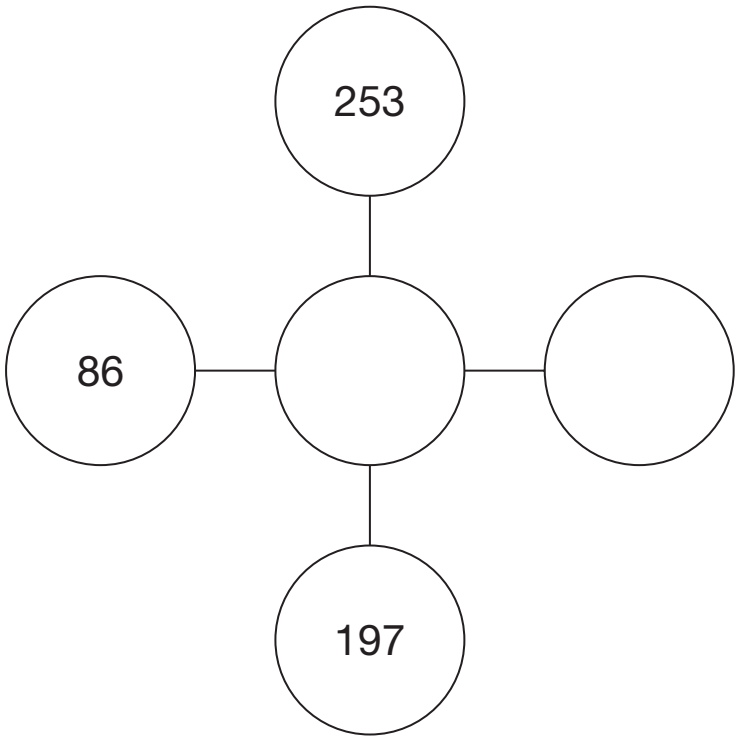
(c) More male starlings than female starlings are aged **6 years or older**.

How many more?

_____

1 mark

16 Write numbers in the circles to make the three numbers along **each line add up to 678**

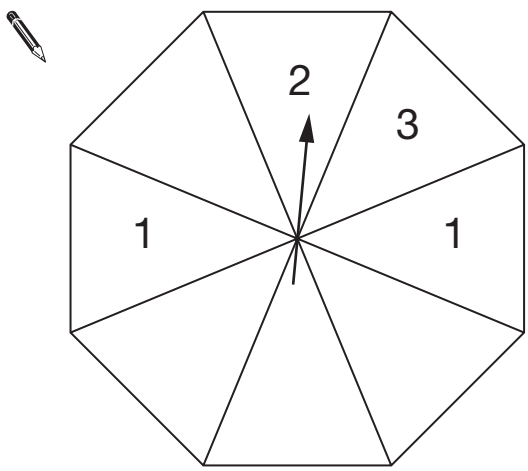


2 marks

17 The diagram shows a fair spinner divided into 8 equal sections.

I am going to spin the pointer.

Write numbers on the blank sections so that there is a **50% chance** that I will spin an **odd number**.



1 mark

18 The diagram shows what Molly buys.

?

£1.99

79p

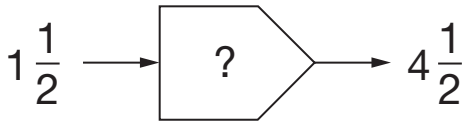
She pays with a **£5** note and gets **66p change**.

How much did Molly pay for the shampoo?

£

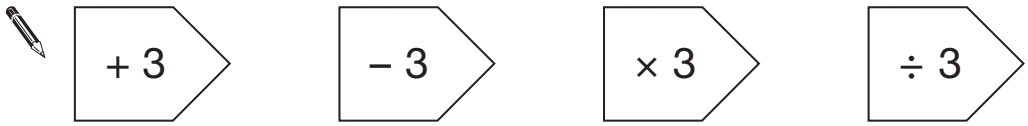
2 marks

19 (a) A rule changes $1\frac{1}{2}$ to $4\frac{1}{2}$



What could the rule be?

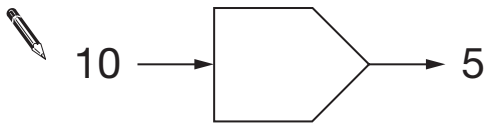
Tick (✓) the **two** correct answers below.



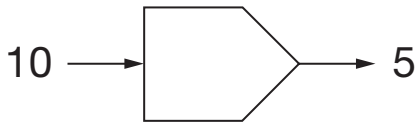
1 mark

(b) A rule changes 10 to 5

What could the rule be? Give two **different answers**.



1 mark



1 mark

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QCA/06/2512 (Pupil pack)
QCA/06/2810 (Mark scheme pack)
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