Ma

YEAR 7

LEVELS 3–4

2007

Mathematics test

Paper 1

Calculator **not** allowed

First name _____

Last name _____

School _____

Remember

- The test is 45 minutes long.
- You **must not** use a calculator for any question in this test.
- You will need: pen, pencil, rubber and a ruler.
- 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	

Instructions

Answers

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

Calculators

You **must not** use a calculator to answer any question in this test.

1 Look at the information about recycling places in one town.

Recycling place	Glass	Cans	Plastic	Paper	Clothes	Shoes
Supermarket A	✓	✓		✓	✓	✓
Supermarket B	✓					
Supermarket C	✓	✓	✓			✓
Car park D	✓			✓	✓	
Car park E	✓	✓				
Road F	✓	✓		✓		

(a) How many of these places recycle **paper**?

_____ 1 mark

(b) One of these places recycles **plastic**.

Which place is this?

_____ 1 mark

(c) Molly wants to go to **one** of the places to recycle **cans and clothes**.

Which place should she go to?

_____ 1 mark

2 Here are three numbers.

7	8	25

(a) What is the **sum** of the three numbers?

1 mark

(b) What is the **difference** between the **largest** number and the **smallest** number?

1 mark

(c) Write a calculation using **all three numbers** that gives the **answer 10**

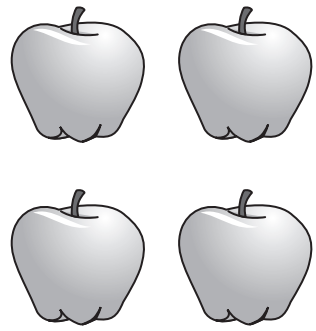
1 mark

3 (a) Jack buys **four** apples.

He pays with a **£2** coin.

He gets **£1.20** change.

How much does **one** apple cost?

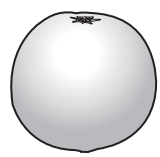


_____ p

1 mark

(b) Oranges cost **15p** each.

Raj has a **£1** coin.



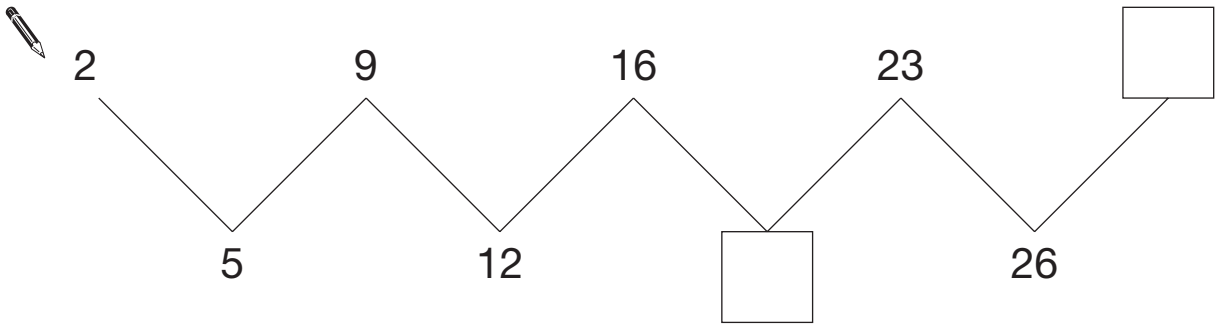
What is the greatest number of oranges Raj can buy with £1?

_____ oranges

1 mark

4 Look at this number sequence.

Write the missing numbers in the boxes.

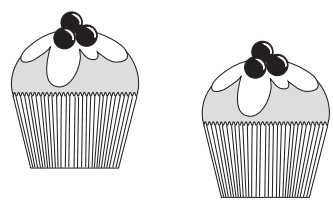


1 mark

1 mark

5 Molly wants to decorate some cakes.

Each cake will have **3 cherries**.



Molly has **48 cherries**.

How many cakes can she decorate?

1 mark

6 Calculate the following.

347 + 62 =

1 mark

154 – 81 =

1 mark

74 × 5 =

1 mark

378 ÷ 3 =

1 mark

7 Look at these statements about **rectangles**.

For each statement, tick (✓) True or False.

The first one is done for you.

	True	False
All rectangles have four sides.	✓	
All rectangles have four equal sides.		
Some rectangles have no right angles.		
All rectangles have at least one line of symmetry.		

1 mark

8 (a) 32 + 47 is **bigger** than 32 + 43

How much bigger?

_____ 1 mark

(b) 7 × 9 is **bigger** than 6 × 9

How much bigger?

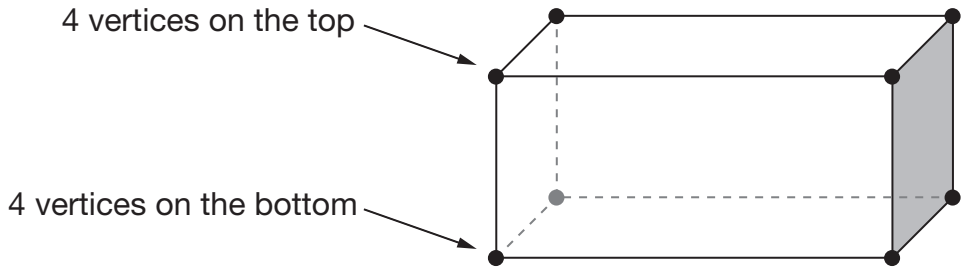
_____ 1 mark

9 Write the missing numbers.

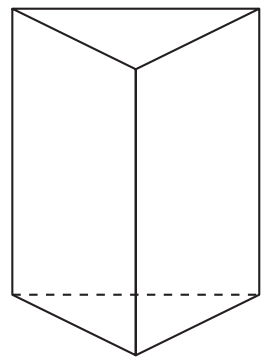
_____ = $\frac{1}{2}$ of 16 1 mark

double _____ = $\frac{1}{2}$ of 16 1 mark

10 A cuboid has **8 vertices**.



(a) How many vertices does this 3-D shape have?



_____

1 mark

(b) A different 3-D shape has **8 vertices**.

It has **6 faces**. Each face is the **same**.

Put a ring round the correct name for this 3-D shape.

square pyramid cylinder

cube rectangle

1 mark

11 (a) Which number is **closer to 100**?

Put a ring round it.

68 133

Explain how you know.

1 mark

(b) Which number is **closest to 10**?

Put a ring round it.

–5 16 –9 0

1 mark

(c) Which number is **closest to 1**?

Put a ring round it.

1.4 1.35 0 1.65

1 mark

12 The table shows the times that street lights come on one night and go off the next morning.

City	Time the lights come **on (pm)**	Time the lights go **off (am)**
Belfast	6:45	6:13
Glasgow	6:40	6:05
London	6:21	5:51
Manchester	6:30	5:59
Newcastle	6:28	5:55

(a) Complete the sentence below.

In **Manchester**, the lights come **on** 15 minutes earlier than they do in _____

1 mark

(b) In **Glasgow**, the lights go **off** later than they do in **Newcastle**.

How much later?

_____ minutes

1 mark

(c) In **Ashford** the lights come **on** at **6:20pm**.

The lights go off **$11\frac{1}{2}$ hours later**.

Complete the table below.

City	Time the lights come **on (pm)**	Time the lights go **off (am)**
Ashford	6:20	_____ : _____

1 mark

13 (a) Write a number that is **both**

greater than 10 **and** a multiple of 4

_____

1 mark

(b) Now write a number that is **both**

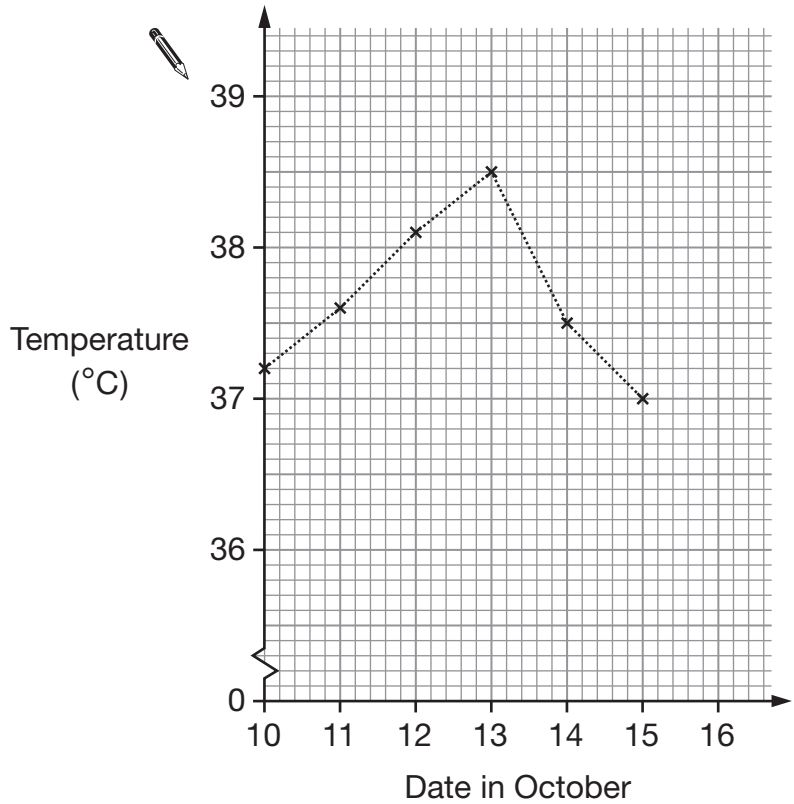
greater than 10 **and** a square number

_____

1 mark

14 In October, Jack was ill.

Here is his temperature chart.



(a) What was Jack's **highest** temperature?

°C

1 mark

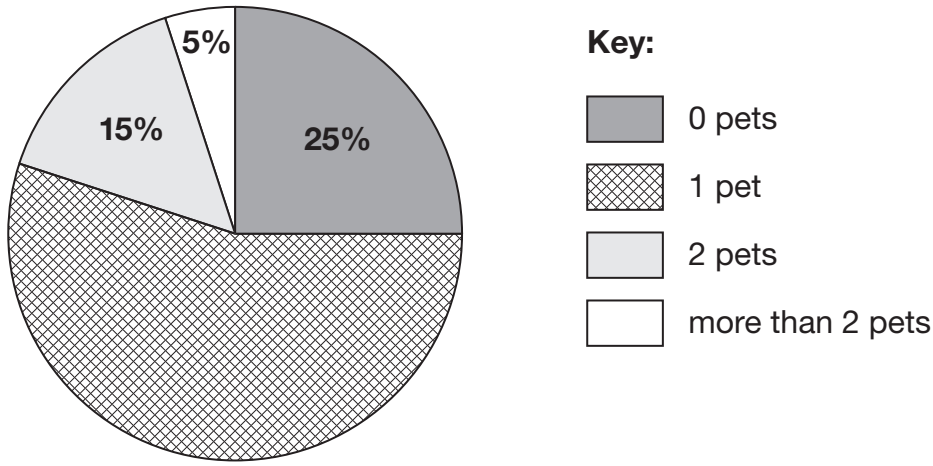
(b) On 16th October, Jack's temperature was 36.7°C

Mark this point on the graph.

1 mark

15 Molly asked the pupils in her class how many pets they had.

She recorded her results on a pie chart.



(a) What percentage of pupils had only **1 pet**?

_____ %

1 mark

(b) There are 20 pupils in the class.

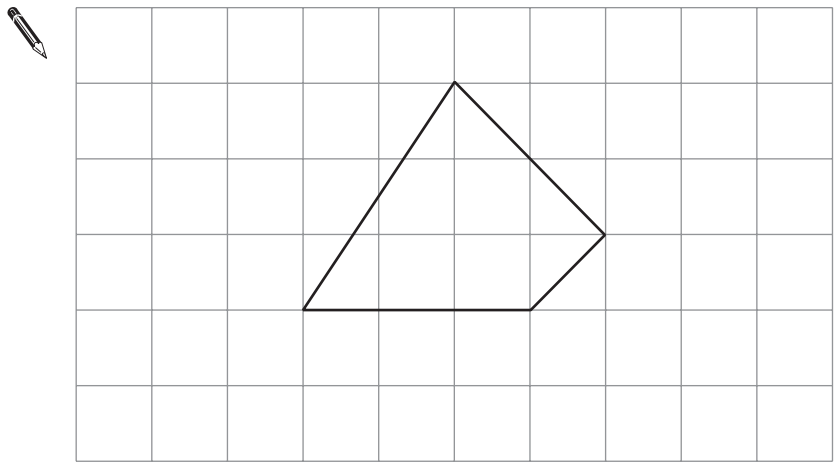
How many pupils had **0 pets**?

_____

1 mark

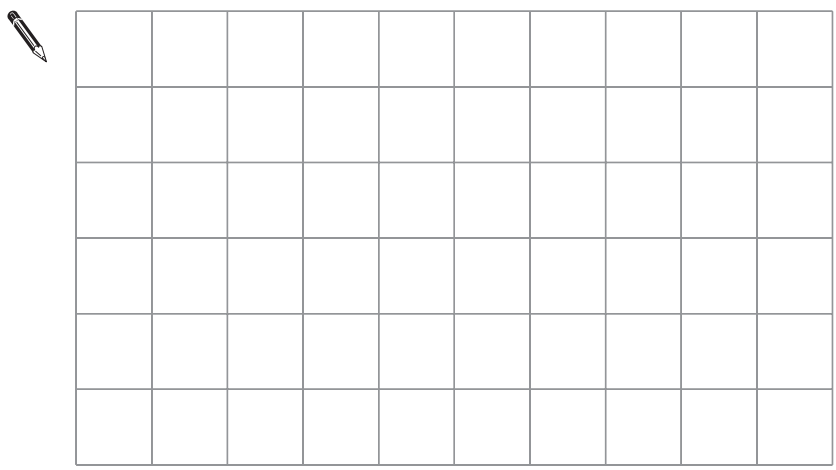
16 (a) The shape on the square grid below has **exactly one right angle**.

Mark the right angle on the shape.



1 mark

(b) Draw a shape on the square grid below that has **exactly two right angles**.



1 mark

17 The rule for this sequence is to **add the same number each time**.

Use this rule to write the missing numbers in the sequence.

3				19

1 mark

18 Here is an equation.

$$x + 30 = 100$$

Raj says that $x = 130$

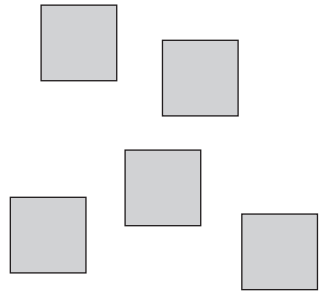
Is he correct?

☐ Yes ☐ No

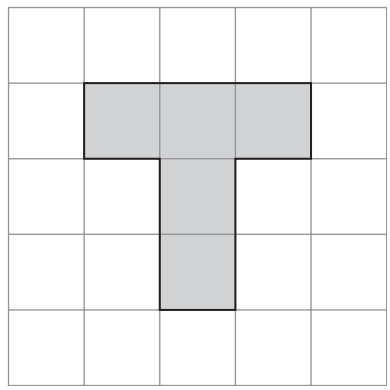
Explain your answer.

1 mark

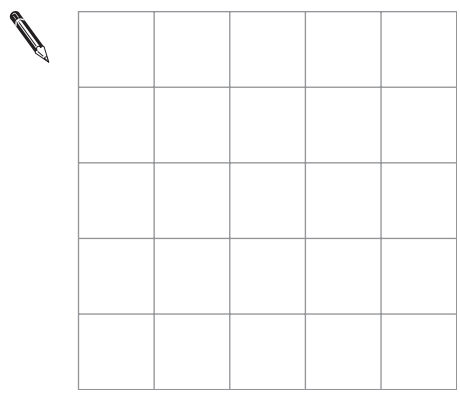
19 You can make patterns on square grids using **5** square tiles.



This pattern has **one** line of symmetry.



Use **5** square tiles to draw a pattern on the grid below that has **more than one** line of symmetry.



1 mark

20 Jack weighs himself.

44.8 kg

Then Jack weighs himself together with his dog.

and

60.4 kg

How much does the dog weigh?

kg

1 mark