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Ma

YEAR 7

LEVELS 3–4

2005

Year 7 mathematics test

Paper 1

Calculator **not** allowed

Please read this page, but do not open your booklet until your teacher tells you to start. Write your name and the name of your school in the spaces below.

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, ruler, tracing paper and a mirror (optional).
- 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.

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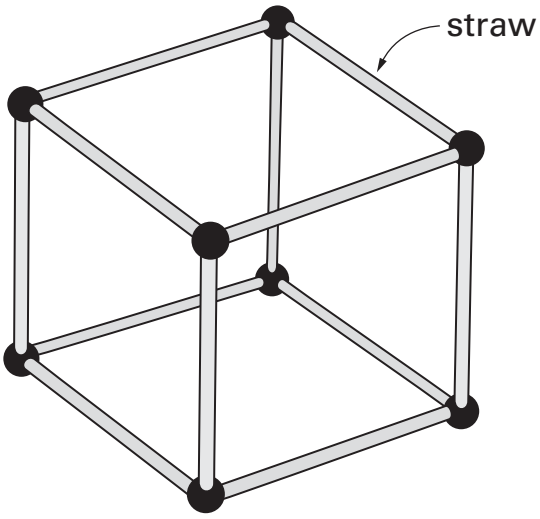
1 Anna makes a cube using straws.



First she joins 4 straws to make a square.

Then she joins more straws to make a cube.

Altogether, how many straws does she use?

. . . . . .

1 mark

2 Write the missing numbers.

46 + ☐ = 73

1 mark

55 – ☐ = 29

1 mark

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3 Here are two calculations.

17 + 15	2 × 16

(a) Do the calculations have the **same answer**?

☐ Yes ☐ No

Show how you know.

. . . . . 1 mark

(b) The calculations below have the same answer.

Write the missing number.

15 ÷ 5	20 − .....

. . . . . 1 mark

(c) Now write the missing number to make this calculation correct.

7 + 8 + 9 = 8 × .....

. . . . . 1 mark

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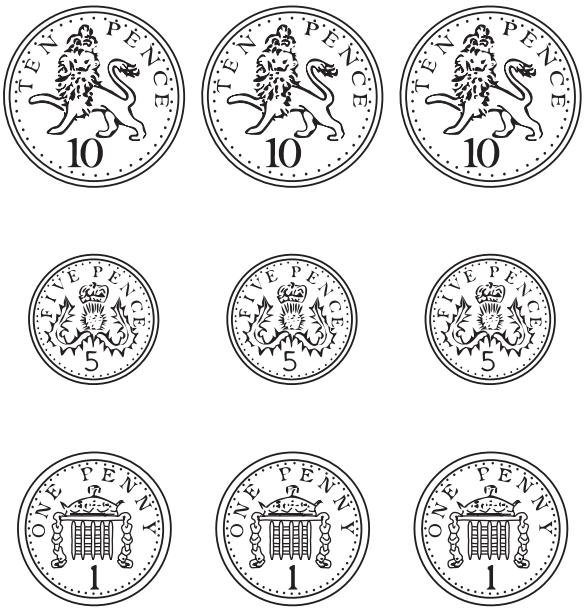
4

Tom's coins

Rifat's coins



Tom has more money than Rifat.

How much more?

..... p

2 marks

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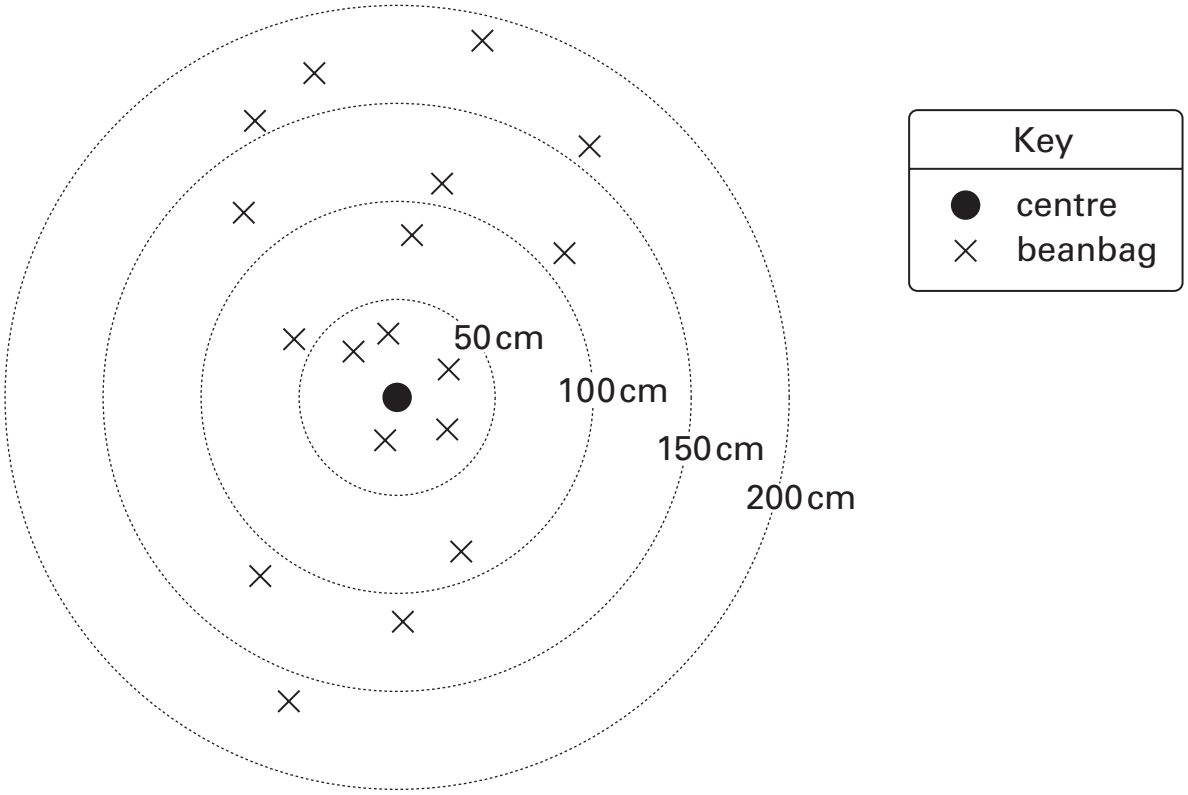
5 Children threw beanbags and tried to make them land on the centre of a target.

The diagram shows how far from the centre each beanbag landed.



(a) Which beanbag was about **190 cm** from the centre? Put a ring round it.

1 mark

(b) Altogether, how many beanbags were **less than 100 cm** from the centre?

. . . . . .

1 mark

(c) Each child threw **three beanbags**. How many children played the game?

. . . . . .

1 mark

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6 This pair of decimal numbers **add to 1**

0.3	0.7

(a) Write a **different pair** of decimal numbers that add to 1

1 mark

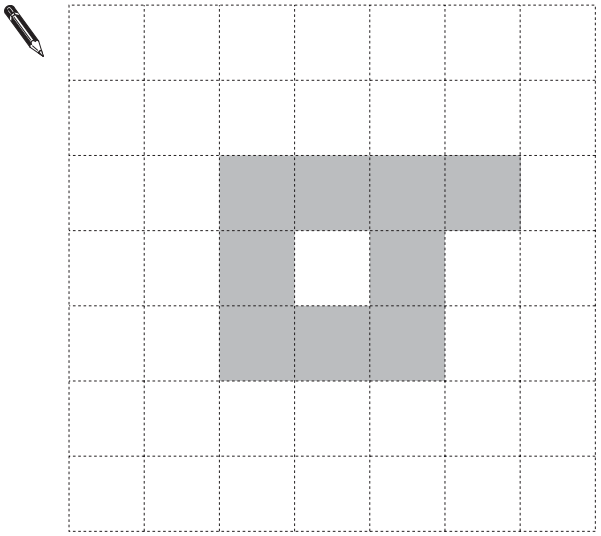
(b) The pair of decimal numbers below should add to 1

Write the missing decimal number.

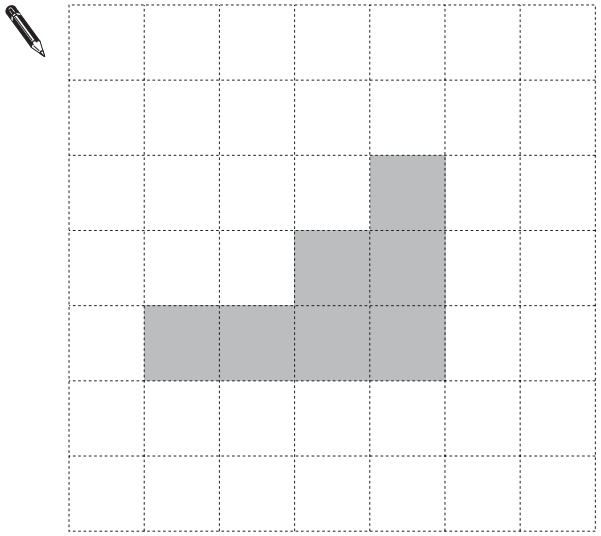
0.85	

1 mark

7 Shade **one more square** on each grid so that **each shape** has **one line of symmetry**.

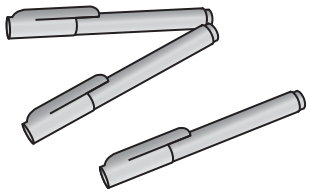


1 mark



1 mark

8 Lisa buys **three** pens.



She gives the shopkeeper **£5** and gets **£1.10 change**.

What is the cost of **one** pen?

£ . . . . .

2 marks

9 Write numbers in the boxes to make the calculations correct.

☐ + ☐ − ☐ = 60

1 mark

☐ + ☐ − ☐ = 0.6

1 mark

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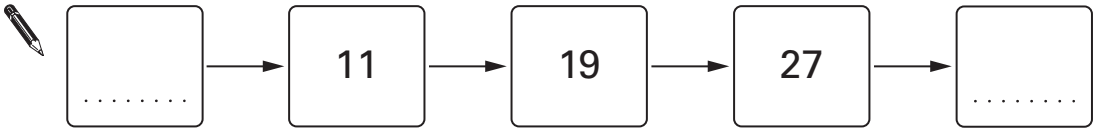
10 (a) The rule in a number sequence is **add 8**

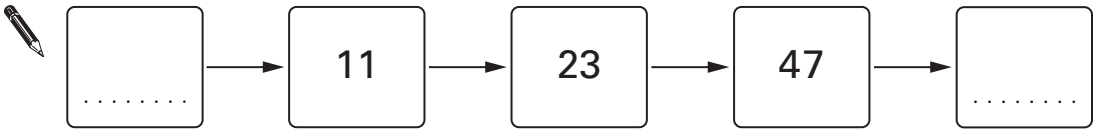
Use this rule to write the missing numbers in the sequence.



1 mark

(b) The rule in a different number sequence is **double, then add 1**

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



2 marks

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11 (a) How many **4s** are there in 40?

. . . . . .

1 mark

(b) How many **8s** are there in 40?

. . . . . .

1 mark

(c) How many **halves** are there in 40?

. . . . . .

1 mark

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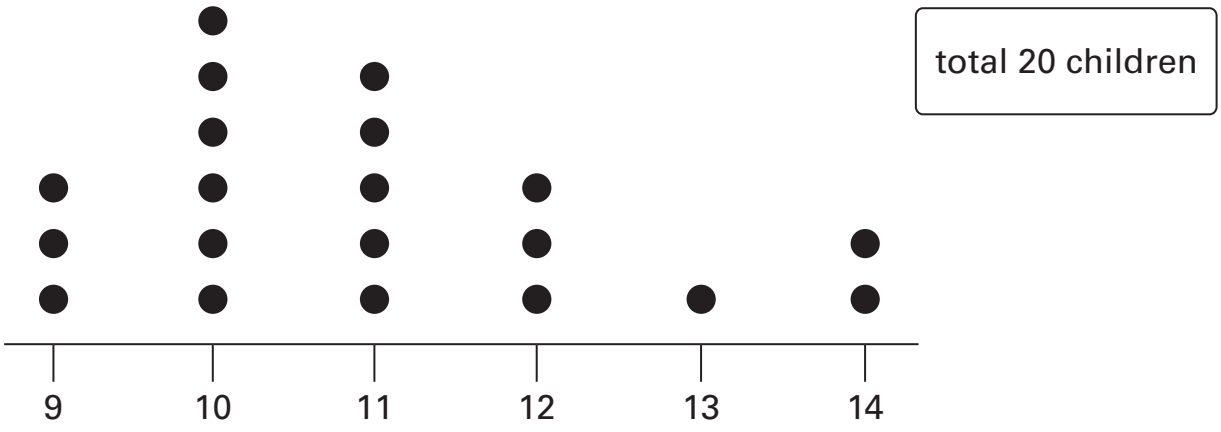
12 **20 children** went to a youth club.

The dot plot shows their ages in years.



(a) What was the most common age?

..... years

1 mark

(b) How many of the children were aged **12 or older**?

.....

1 mark

(c) **14 children** went to a different youth club.

Here is information about their ages in years.

The youngest children were aged 10

3 children were aged 11

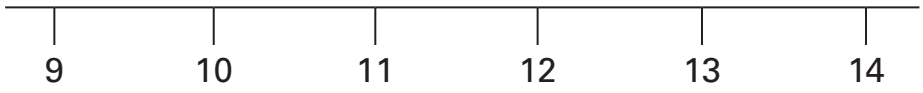
More children were aged 12 than were aged 11

The most common age was 13

No children were older than 13

Show this information on the dot plot below.

total 14 children



2 marks

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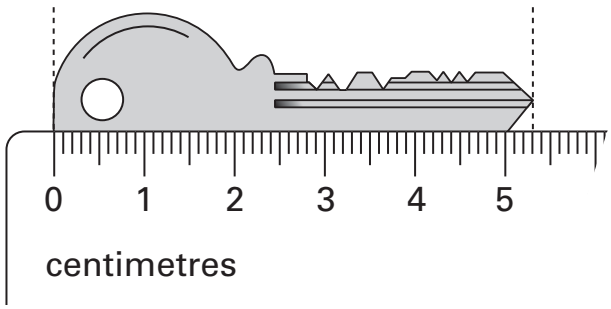
13 The diagrams in this question are not drawn accurately.

(a) The diagram shows Jo's key.

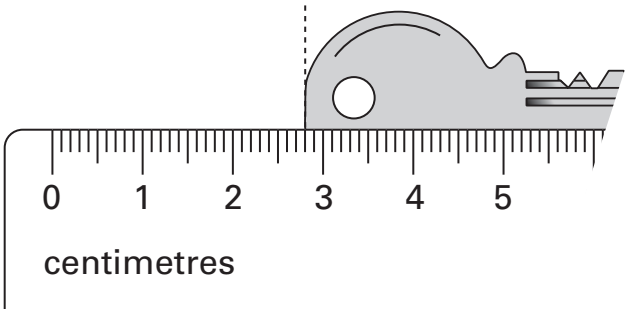


Use the scale to find the length of Jo's key.

cm

1 mark

(b) This time you cannot see all of Jo's key.



One end is at 2.8cm on the scale.

Where is the other end on the scale?

cm

1 mark

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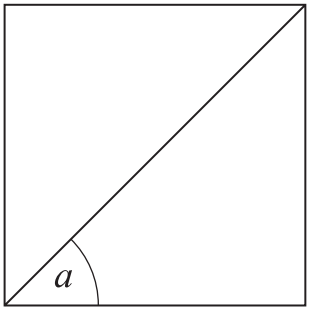
14 (a) How many degrees are there in a right angle?

..... degrees

1 mark

(b) The diagram shows a square.



How many degrees is angle a?

..... degrees

1 mark

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15 Work out the answers to the calculations below.

6 × 25

. . . . . .

. . . . .
1 mark

16 × 25

. . . . . .

. . . . .
2 marks

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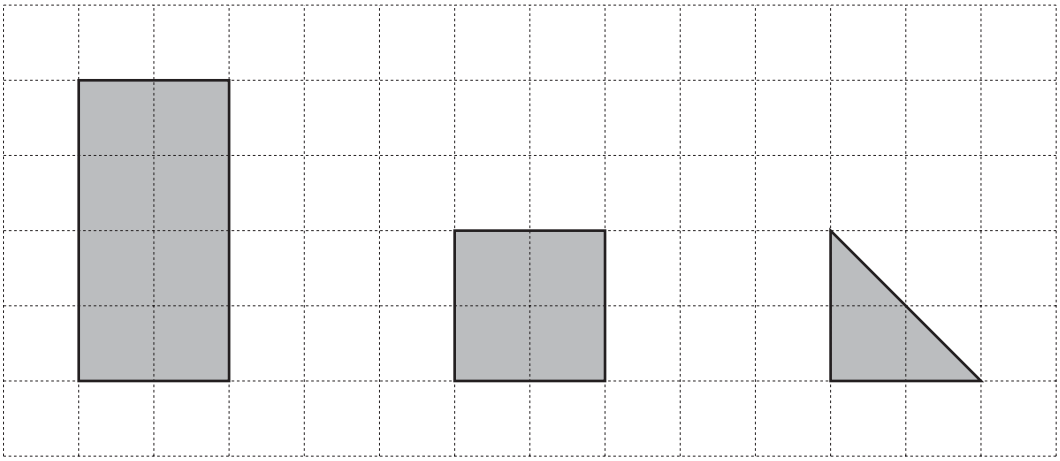
16 The diagram shows three shapes drawn on a centimetre square grid.

The **area** of the rectangle is **8 cm^2**



(a) What is the area of the square?

..... cm^2

1 mark

(b) What is the area of the triangle?

..... cm^2

1 mark

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17 (a) Look at this equation.

$$x + y = 30$$

What could the values of x and y be?

Give one pair of values.

$x =$ ..... $y =$ .....

Now give a **different** pair of values that x and y could be.

$x =$ ..... $y =$ .....

1 mark

(b) Here is a different equation.

$$a - b = 30$$

When $a = 40$, what is the value of b?

$b =$ .....

1 mark

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END OF TEST

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