

**'Now we are ready to start the test.  
For the first group of questions you will have 5 seconds to work out each answer and write it down.'**

1	Multiply thirty-one by ten.
2	How many centimetres are there in one metre?
3	What is one quarter of twenty-four?
4	Subtract three from minus five.
5	Look at the equation. When $x$ equals six, what is the value of $y$ ?
6	What is three point nine divided by two?
7	To the nearest centimetre the length of a pencil is ten centimetres. What is the least value the length of the pencil could be?

**'For the next group of questions you will have 10 seconds to work out each answer and write it down.'**

8	The chart shows the temperature at midday for one week. Which day had a midday temperature of five degrees Celsius?
9	A robot moves one metre north, then one metre east, then one metre south, then one metre west. What is the name of the shape of the robot's path?
10	Look at the triangle on the grid. Write the coordinates of the point marked C.
11	How many nought point fives are there in ten?
12	Think about the distance eight kilometres. About how many miles is that? Ring the best answer on your answer sheet.
13	Look at the fraction. Write it in its simplest form.

**'Now turn over your answer sheet.'**

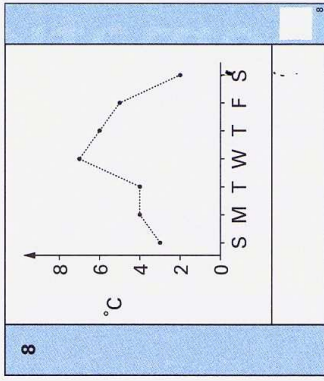
14	In a survey, people said whether they liked Mexican food. The pie chart shows the results. What percentage of people said no?
15	What is the area of this square?

Key stage 3 mathematics 2003  
Mental mathematics Test B

First name \_\_\_\_\_  
Last name \_\_\_\_\_  
School \_\_\_\_\_

Total marks

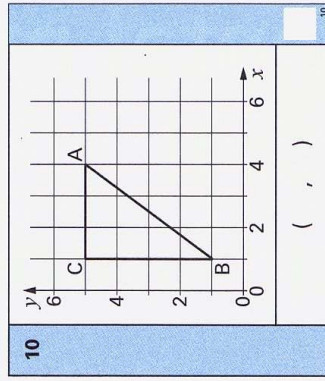
Time: 10 seconds



9

Practice question

60



11

Time: 5 seconds

1 31

2 cm

3

4 -5

5  $y = x^2$

6 3.9

7 cm

12 4 5 6 7 8

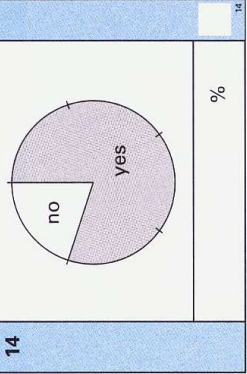
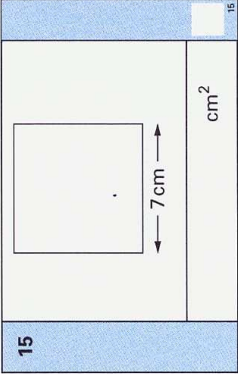
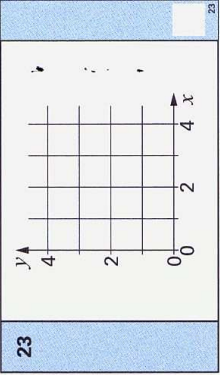
13 120 200

16	Look at the equation. Solve it to find the value of $k$ .
17	The longest bone in the human body is in the leg. The average length of this bone in a man is fifty centimetres. In a woman it is ten per cent less. What is the average length of this bone in a woman?
18	A children's sandpit is a cuboid measuring three metres by four metres by fifty centimetres. Which of the calculations on your answer sheet will give the volume of the sandpit? Put a ring round it.
19	What is one third of three-quarters of one hundred?
20	Look at the inequality. How many integer solutions are there?

**'For the next group of questions you will have 15 seconds to work out each answer and write it down.'**

21	Write a factor of sixty that is bigger than ten but smaller than twenty.
22	The first even number is two. What is the hundredth even number?
23	On the grid, sketch the straight line with equation $y$ equals $x$ .
24	Using three as an approximation for pi, what is the area of a circle with radius five centimetres?
25	I can make a three-digit number from the digits two, three and four in six different ways. How many of these three-digit numbers are even?
26	Look at the calculation. Write down an approximate answer.
27	Complete the factorisation.
28	I am going to take a ball at random from a bag. The probability it will be red is two-fifths. There are eight red balls in the bag. How many of the balls are not red?
29	What 3-D shape has four vertices?
30	I write all the integers from one to one hundred. How many of these integers contain a digit two?

**'Put your pens down. The test is finished.'**

Time: 10 seconds continued		Time: 15 seconds	
14		21	60
15		22	
16	$\frac{k}{2} = 20$	23	
17	cm 50 cm	24	cm <sup>2</sup> 5 cm
18	3 m by 4 m by 50 cm 3 + 4 + 50      3 x 4 x 50 3 + 4 + 0.5      3 x 4 x 0.5	25	
19	100	26	$\frac{29.95 \times 20.7}{4.97}$
20	$4 < k < 10$	27	$18y^2 + 6y = 6y( \dots + \dots )$
		28	$\frac{2}{5}$
		29	
		30	