

'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

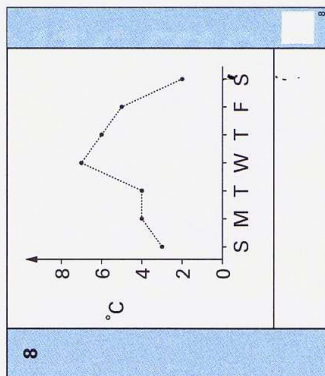
First name _____

Last name _____

School _____

Total marks

Time: 10 seconds



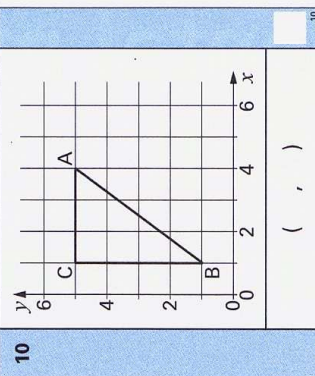
Practice question

| | | |
|----------------------|----------------------|----|
| <input type="text"/> | <input type="text"/> | 60 |
|----------------------|----------------------|----|

Time: 5 seconds

| | | | | |
|---|----------------------|----------------------|----------------------|----------------------|
| 1 | <input type="text"/> | <input type="text"/> | 31 | <input type="text"/> |
| 2 | <input type="text"/> | cm | <input type="text"/> | <input type="text"/> |
| 3 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 4 | <input type="text"/> | <input type="text"/> | -5 | <input type="text"/> |
| 5 | <input type="text"/> | <input type="text"/> | $y = x^2$ | <input type="text"/> |
| 6 | <input type="text"/> | <input type="text"/> | 3.9 | <input type="text"/> |
| 7 | <input type="text"/> | cm | <input type="text"/> | <input type="text"/> |

9



11

| | | | | | | | |
|----|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 12 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
|----|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|

13

| | | | | | | | |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|

| | |
|---|--|
| equation. Solve it to find the value of k . | |
| bone in the human body is in the leg. | |
| length of this bone in a man is fifty centimetres. | |
| it is ten per cent less. | |
| average length of this bone in a woman? | |
| and pit is a cuboid measuring three metres by four metres by four metres. | |
| calculations on your answer sheet will give the volume of | |
| and it. | |
| third of three-quarters of one hundred? | |
| inequality. How many integer solutions are there? | |

of questions you will have 15 seconds to work out each answer

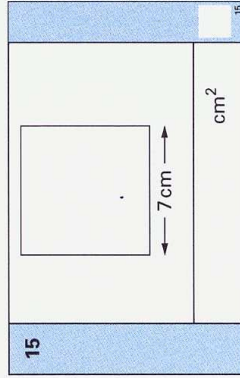
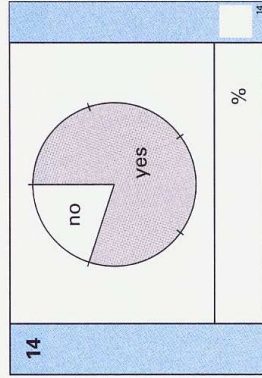
| | |
|---|--|
| of sixty that is bigger than ten but smaller than twenty. | |
| number is two. | |
| hundredth even number? | |
| sketch the straight line with equation y equals x . | |
| is an approximation for pi, what is the area of a circle with | |
| centimetres? | |
| three-digit number from the digits two, three and four in | |
| ways. | |
| these three-digit numbers are even? | |
| calculation. | |
| an approximate answer. | |
| factorisation. | |
| take a ball at random from a bag. | |
| it will be red is two-fifths. | |
| it red balls in the bag. How many of the balls are not red? | |
| ce has four vertices? | |
| integers from one to one hundred. | |
| these integers contain a digit two? | |

n. The test is finished.

many of the balls are not red

red.

Time: 10 seconds continued



16

$$\frac{k}{2} = 20$$

17

$$\text{cm} \quad 50 \text{ cm}$$

18

| | |
|---------------------|-------------------------|
| 3 m by 4 m by 50 cm | |
| $3 + 4 + 50$ | $3 \times 4 \times 50$ |
| $3 + 4 + 0.5$ | $3 \times 4 \times 0.5$ |

19

$$100$$

20

$$4 < k < 10$$

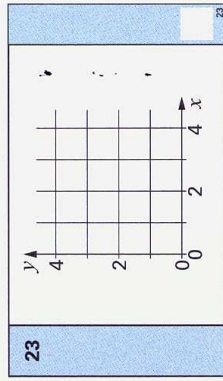
Time: 15 seconds

21

$$60$$

22

$$22$$



24

$$\text{cm}^2 \quad 5 \text{ cm}$$

25

$$25$$

26

$$\frac{29.95 \times 20.7}{4.97}$$

27

$$18y^2 + 6y = 6y \left(\frac{\quad}{\quad} + \frac{\quad}{\quad} \right)$$

28

$$\frac{2}{5}$$

29

$$28$$

30

$$20$$