

'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	How many hundreds are there in one thousand?
2	I asked people whether they used the internet last week. The pie chart shows the results. What percentage of people said no?
3	How many lines of symmetry does a rectangle have?
4	Ten per cent of a number is seven. What is the number?
5	Multiply minus six by minus two.

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

6	A magazine costs one pound forty pence. I buy two of them and pay with a five pound note. How much change should I get?
7	How many days are there in seven weeks and one day?
8	What is the smallest whole number that is divisible by five and by three?
9	I face south-west, then I turn through one hundred and eighty degrees. What direction am I facing now?
10	Multiply eight point seven by two.
11	Look at the polygon. What is its mathematical name?
12	Tariq won one hundred pounds in a maths competition. He gave two-fifths of his prize money to charity. How much of his prize money, in pounds, did he have left?
13	I am thinking of a number. I call it n . I double my number then I subtract three. Write an expression to show the result.
14	An event is certain to happen. Which number on your answer sheet represents its probability? Ring it.
15	Look at the grid. It is made from two sets of parallel lines. The angle marked is one hundred and forty degrees. On the grid, mark two different angles that are forty degrees.
16	Look at the equation. What is the value of x ?

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Mental mathematics i B

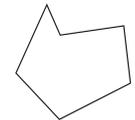
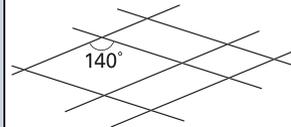
First name _____

Last name _____

School _____

i marks

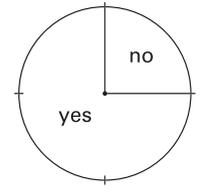
Time: 10 seconds

6	<input style="width: 95%;" type="text"/>	£ 40	<input style="width: 20px;" type="text"/>
7	<input style="width: 95%;" type="text"/> days		<input style="width: 20px;" type="text"/>
8	<input style="width: 95%;" type="text"/>		<input style="width: 20px;" type="text"/>
9	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>	<input style="width: 20px;" type="text"/>
10	<input style="width: 95%;" type="text"/>	7	<input style="width: 20px;" type="text"/>
11			<input style="width: 20px;" type="text"/>
12	<input style="width: 95%;" type="text"/>	$\bar{5}$	<input style="width: 20px;" type="text"/>
13	<input style="width: 95%;" type="text"/>	n	<input style="width: 20px;" type="text"/>
14	<input style="width: 95%;" type="text"/>	$0 \quad \frac{1}{2} \quad 1 \quad 50 \quad 100$	<input style="width: 20px;" type="text"/>
15			<input style="width: 20px;" type="text"/>
16	<input style="width: 95%;" type="text"/>	$34 - 2x = 14$	<input style="width: 20px;" type="text"/>
17	<input style="width: 95%;" type="text"/>	% £ 50	<input style="width: 20px;" type="text"/>

Practice question

60

Time: 5 seconds

1	<input style="width: 95%;" type="text"/>	<input style="width: 20px;" type="text"/>
2		<input style="width: 20px;" type="text"/>
3	<input style="width: 95%;" type="text"/>	<input style="width: 20px;" type="text"/>
4	<input style="width: 95%;" type="text"/>	<input style="width: 20px;" type="text"/>
5	<input style="width: 95%;" type="text"/>	<input style="width: 20px;" type="text"/>

18	Multiply out the brackets.
19	The instructions for a fruit drink say to mix one part blackcurrant juice with four parts water. I want to make one litre of this fruit drink. How much blackcurrant juice should I use? Give your answer in millilitres.
20	A rectangular picture measures six centimetres by four centimetres. I enlarge the picture so that the longer side measures nine centimetres. What does the shorter side measure?
21	Look at the sequence of numbers. What could an expression for the n th term be?

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

22	The scale drawing shows a lake. I walk around the perimeter of this lake. Use the scale to estimate how many kilometres I walk.
23	The answer sheet shows the cost of theatre tickets. Mrs Jones wants to go with some children to the theatre. In total, she does not want to spend more than twenty-five pounds. What is the greatest number of children she can take?
24	The net of a triangular prism is made from triangles and rectangles. How many of each shape are needed?
25	I am going to throw a fair eight-sided dice, numbered twelve to nineteen. What is the probability that I will throw a prime number?
26	Four people went running. The graph shows the time taken and the distance travelled by each of the four. Write the letter of the person who had the greatest average speed.
27	Twenty different families were asked how many children they had. The table shows the results. Altogether, how many children are there in the twenty families?
28	Look at the calculation. Write down an approximate answer.
29	Look at the diagram. What is the equation of the line marked A?
30	I pay five pounds for a book and a magazine. The book costs four pounds more than the magazine. How much does the book cost?

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

Time: 10 seconds continued

18		4(7 - y)
19	ml	1 litre
20		
21		1, 4, 9, 16, ...

Time: 15 seconds

22		
23	Each adult	£6.99
	Each child	£3.99
24 triangles	
 rectangles	
25		12 to 19

Time: 15 seconds continued

26												
27	<table border="1" style="width: 100%;"> <thead> <tr> <th>Number of children</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>3</td> </tr> <tr> <td>1</td> <td>6</td> </tr> <tr> <td>2</td> <td>6</td> </tr> <tr> <td>3</td> <td>5</td> </tr> </tbody> </table>		Number of children	Frequency	0	3	1	6	2	6	3	5
Number of children	Frequency											
0	3											
1	6											
2	6											
3	5											
28		$\frac{40.04 \pm 29.8}{9.83}$										
29												
30	£											