Ma

KEY STAGE 3

HIGHER TIERS TEST A

2002

Mental arithmetic Test A Audiotape transcript

This booklet contains a transcript of the key stage 3 mental arithmetic Test A. It should be used **ONLY** in cases of tape failure or for specific special arrangements made for the administration of this version of the test for pupils with sensory and/or motor disabilities.

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

1	I start at one point seven and count up in equal steps. One point seven, one point eight, one point nine, … What is the next number?
2	How many faces has a cube?
3	When m equals three, what is the value of five m?
4	Look at the numbers on your answer sheet. Add them.
5	What is the sum of the angles in a triangle?
6	Write the ratio twelve to six in its simplest form.
7	Multiply nought point two by nought point three.

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

8	Double seventy-eight.
9	The pictogram shows the number of boys and girls in a year group that had part-time jobs. How many more boys than girls had part-time jobs?
10	What number is the arrow pointing to on the number line?
11	There are red, blue and yellow balls in a bag. I am going to take out one ball at random. The table shows the probabilities of getting a red ball and of getting a blue ball. What is the probability of getting a yellow ball?
12	Look at the expression. Simplify it.
13	AB is a straight line. Work out the size of angle x
14	A teacher asked pupils in a class 'Do you eat meat?' The percentage bar chart shows the results. Estimate the percentage of pupils that said no.

'Now turn over your answer sheet.'

Key stage 3 mathematics 2002
Mental arithmetic Test A

First name _____

Last name _____

School _____

Pupil number | | | | | | | **Total marks** |

Practice question

70 80

Time: 5 seconds

1 1.7 1.8 1.9 .....

2

3 $5m$

4 –7 9

5 degrees

6 12 : 6

7 0.2 0.3

Time: 10 seconds

8 78

9 **Key:** ◇ = 8 pupils

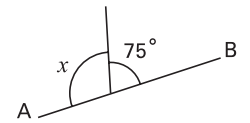
Boys	◇◇◇◇
Girls	◇◇◁

10 –5 5

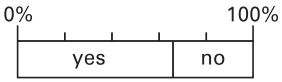
11

red	blue	yellow
0.2	0.5	?

12 $7a + 2b + 3a + 5b$

13 

degrees

14 

%

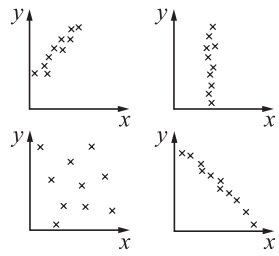
15	What is the total cost of three books at nine pounds ninety-nine pence each?
16	Which scatter diagram shows strong negative correlation? Ring the correct answer.
17	Forty per cent of a number is twelve. What is the number?
18	Look at the expression. Multiply out the brackets.
19	Look at the numbers. One of them is the decimal equivalent of one eighth. Ring the correct number.
20	Look at the expression. What is the value of this expression when k equals three?
21	A drink uses apple juice and carrot juice in the ratio two to three. I want to make a litre of this drink. How many millilitres of apple juice should I use?
22	The volume of a cube is sixty-four centimetres cubed. What is the length of an edge of the cube?

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

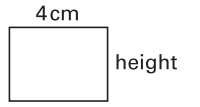
23	The diagram shows a rectangle. Its perimeter is twelve centimetres. What is the height of the rectangle?
24	How many hours are there in one week?
25	Look at the diagram. Mark on the diagram another angle that is the same size as angle y Label it y
26	A computer game cost forty-two pounds. Its price increased by ten per cent. What is the new price of the computer game?
27	The table shows the number of goals scored in fourteen matches. How many goals were scored altogether?
28	Work out the answer to the calculation on your answer sheet.
29	x squared equals nine. What are the possible values of ten minus x?
30	Look at the right-angled triangle. Work out the height of the triangle.

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

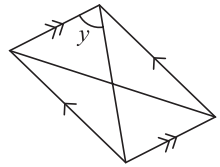
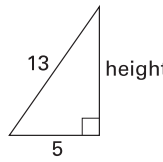
Time: 10 seconds continued

15	£	£9.99	15
16			16
17		40% 12	17
18		$a(a + 2)$	18
19	0.125 0.18 0.215 0.8 1.8		19
20		$10k^2$	20
21	ml	2 : 3	21
22	cm		22

Time: 15 seconds

23		23
	cm	

Time: 15 seconds continued

24	hours		24
25			25
26	£	£42	26
27	Number of goals / Frequency 0 / 4 1 / 3 2 / 6 3 / 1		27
28		$2^4 \times 3^2$	28
29	and	$x^2 = 9$ $10 - x$	29
30			30

EARLY YEARS

NATIONAL CURRICULUM 5–16

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GCE A LEVEL

NVQ

OTHER VOCATIONAL QUALIFICATIONS

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