

Ma

KEY STAGE

3

LOWER TIER
TEST C

2006

This booklet contains **CONFIDENTIAL** test questions. It **MUST BE KEPT SECURE**. It should not be opened until the mental mathematics test is due to start on Wednesday 3 May 2006. Early opening, up to one hour before the test starts, is permissible only if papers are needed for administrative purposes.

Mathematics tests

Mental mathematics test C

Transcript

This booklet contains a transcript of the key stage 3 mental mathematics test C. It should be used **ONLY** in cases of audiotape or CD failure or for specific special arrangements outlined in the 2006 *Assessment and reporting arrangements* booklet for key stage 3.

2006



Notes for use of transcript

Instructions

In the event of an audiotape or CD failure, the test administrator should follow the instructions on pages 2 and 5.

1. Pupils should have only pens or pencils. They should not have rubbers, rulers, calculators or any mathematical equipment. Access to paper for working out answers is **not allowed**.
2. Ensure that each pupil has an answer sheet. Tell the pupils to write their name and school in the box at the top of the answer sheet.
3. Ensure the pupils understand that:
 - they must complete the test on their own without copying or discussing questions with other pupils
 - they will be told how long they have to answer each question and that the time given will increase from 5, to 10, to 15 seconds as the test progresses through the three sections
 - for some of the questions, the information they will need is included in or beside the answer box on the pupil answer sheet
 - they are not allowed to use a calculator or any other mathematical equipment
 - if they want to change their answer, they should put a cross through their first answer. They are not allowed to rub out any answers
 - they should answer as many questions as they can. If they find a question too difficult, they should put a cross in the answer box, and wait for the next question
 - they should not write in the white boxes in the blue margins
 - they will not be allowed to ask any questions once the test has started.
4. The test administrator must have access to a clock or watch that measures accurately in seconds.

Instructions continued on page 5

Lower tier Test C questions

'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	Write in figures the number seven hundred and three.
2	How many right angles does a rectangle have?
3	Multiply eight by three.
4	The height of the Statue of Liberty is one hundred and fifty-one feet. What is this height to the nearest hundred feet?
5	What number do I need to add to thirty-three to make one hundred?
6	How many seconds are there in three minutes?
7	Divide nine hundred and twenty by ten.
8	What number is four less than minus seven?
9	Look at the expression on your answer sheet. Write it as simply as possible.

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

10	A group of pupils share twenty-four pounds. They each get exactly six pounds. How many pupils are in the group?
11	Look at the diagram on your answer sheet. Put a ring round the arrow that is pointing south-west.
12	Subtract twenty-four from fifty.
13	For two adults to see a film, the cost is eleven pounds altogether. How much does it cost for one adult to see the film?
14	Look at the equation. What is the value of x ?
15	Look at the numbers on your answer sheet. Add them.
16	Look at the data on your answer sheet. Which number is the mode?
17	Look at the diagram drawn on a square grid. What percentage of the diagram is shaded?

'Now turn over your answer sheet.'

Pupil answer sheet

Key stage 3 mathematics 2006
Mental mathematics Test C

First name _____

Last name _____

School _____

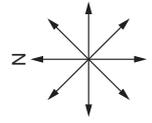
Total marks

Time: 5 seconds continued

8	<input type="text"/>	<input type="text"/>	-7	<input type="text"/>
9	<input type="text"/>	<input type="text"/>	$3d - d$	<input type="text"/>

Time: 10 seconds

10	pupils	£24	£6	<input type="text"/>
----	--------	-----	----	----------------------

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

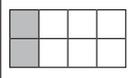
12	<input type="text"/>	24	50	<input type="text"/>
----	----------------------	----	----	----------------------

13	£	<input type="text"/>	£11	<input type="text"/>
----	---	----------------------	-----	----------------------

14	<input type="text"/>	$16 + x = 23$	<input type="text"/>
----	----------------------	---------------	----------------------

15	<input type="text"/>	3.7	0.5	<input type="text"/>
----	----------------------	-----	-----	----------------------

16	<input type="text"/>	5	8	5
	<input type="text"/>	5	8	7
	<input type="text"/>	5	6	6

17	<input type="text"/>	<input type="text"/>	%	<input type="text"/>
				

Practice question

<input type="text"/>	25	<input type="text"/>
----------------------	----	----------------------

Time: 5 seconds

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

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

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

4	feet	151 feet	<input type="text"/>
---	------	----------	----------------------

5	<input type="text"/>	33	<input type="text"/>
---	----------------------	----	----------------------

6	seconds	<input type="text"/>	<input type="text"/>
---	---------	----------------------	----------------------

7	<input type="text"/>	920	<input type="text"/>
---	----------------------	-----	----------------------

18	The diagram shows what some people had for breakfast. How many people had both cereal and toast, but not eggs?
19	Write a number that is a factor of both nine and twelve.
20	I have a fair six-sided dice numbered one to six. I am going to roll the dice. What is the probability that I will roll an odd number?
21	Look at the triangle drawn on the grid. Write down the coordinates of the point marked A.
22	Two angles fit together to make a straight line. One angle is seventy-eight degrees. How many degrees are there in the other angle?
23	What is the next prime number after seven?

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

24	The tally chart shows the number of pupils with and without a calculator. Altogether, how many pupils are there?
25	Three pencils cost sixty pence. How much would four pencils cost?
26	Look at the diagram on the square grid. Draw the reflection of the shape in the mirror line.
27	Your answer sheet shows the answer to one hundred and thirty-two divided by six. Use this information to help you work out the answer to one hundred and thirty-two divided by three.
28	Look at the shape made from equilateral triangles. Shade two more triangles so that the shape has rotation symmetry of order three.
29	A birthday card costs one pound and forty-five pence. How much do three of these cards cost?
30	A rectangle has a length of six centimetres and an area of thirty square centimetres. What is the width of the rectangle?

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

Time: 10 seconds continued

18

people

18

19

	9	12
--	---	----

19

20

(,)

20

21

(,)

21

22

°

22

23

	7
--	---

23

Time: 15 seconds

24

With a calculator	
Without a calculator	

pupils

24

25

p	60p
---	-----

25

26

Mirror line

26

27

$132 \div 6 = 22$	
$132 \div 3 =$	

27

28

28

29

£	£1.45
---	-------

29

30

cm	6 cm	30 cm ²
----	------	--------------------

30

5. Read out the following script, using exactly these words:

Listen carefully to the instructions I am going to give you. When I have finished reading them, I will answer any questions. However, you will not be able to ask any questions once the test has begun.

I will start by reading a practice question. Then I am going to ask you 30 questions for the test. On your sheet there is an answer box for each question, where you should write the answer to the question and nothing else. You should work out the answer to each question in your head, but you may jot things down outside the answer box if this helps you. Do not try to write down your calculations because this will waste time and you may miss the next question. For some of the questions, important information is already written down for you on the sheet.

I will read out each question twice. Listen carefully both times. You will then have time to work out your answer. If you cannot work out an answer, put a cross in the answer box. If you make a mistake, cross out the wrong answer and write the correct answer next to it. There are some easy and some harder questions so don't be put off if you cannot answer a question.

6. Stop and answer any questions that the pupils may have.

7. Read out the following:

Here is the practice question to show you what to do.

I will read the question twice, and you will have 5 seconds to work out the answer and write it in the answer box.

Double the number on your answer sheet.

Repeat the question.

Double the number on your answer sheet.

Wait 5 seconds (measured accurately using a clock or watch), then read out the following:

Now put down your pen or pencil.

8. Ensure that the pupils have correctly placed their answers to the practice question on their answer sheets. Remind the pupils that, for some questions, information is provided in or beside the answer box. When they are ready to begin the test, tell the pupils that you will not be able to answer any further questions, or interrupt the test, once you have started reading the questions.
9. The questions are given on pages 3–4 of this booklet. The questions must be read out exactly as written. Start by stating the question number, then read each question twice before leaving the 5, 10 or 15 second response time. **These timings must be strictly adhered to.**
10. At the end of the test, tell the pupils to put down their pens or pencils, then collect their answer sheets.

First published in 2006

© Qualifications and Curriculum Authority 2006

Reproduction, storage, adaptation or translation, in any form or by any means, of this publication is prohibited without prior written permission of the publisher, unless within the terms of licences issued by the Copyright Licensing Agency. Excerpts may be reproduced for the purpose of research, private study, criticism or review, or by educational institutions solely for educational purposes, without permission, provided full acknowledgement is given.

Produced in Great Britain by the Qualifications and Curriculum Authority under the authority and superintendence of the Controller of Her Majesty's Stationery Office and Queen's Printer of Acts of Parliament.

The Qualifications and Curriculum Authority is an exempt charity under Schedule 2 of the Charities Act 1993.

Qualifications and Curriculum Authority
83 Piccadilly
London
W1J 8QA
www.qca.org.uk

270043