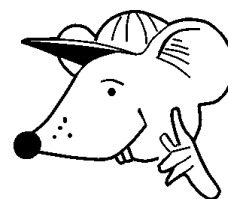




MATHEMATICS



Key Stage 2

Practice Mental Arithmetic Test A

Equipment

Paper and pencil.
Clock or watch.

MathSphere

© MathSphere P.O. Box 1234 Worthing BN13 2UJ www.mathsphere.co.uk

Instructions

As part of the Year 6 Mathematics tests all children take a short mental arithmetic test. A tape is played in the classroom and the children write down the answers on an answer page. Only a very limited amount of time is given for each question. Children who have met this kind of test before are usually more successful as they are confident with the format and style.

These tests have been devised in order to give children an experience as similar as possible to the Key Stage 2 Mental Arithmetic Test. The following instructions will need to be followed.

1. The test should be carried out somewhere quiet and where the child can write easily and comfortably - no T.V. on in the background! Sitting at a table would be ideal.
2. Children should only have a pen or a pencil and the answer sheet. In the real test they are not allowed to have an eraser, ruler, calculator or any other maths equipment, e.g. 'tables' on the back of a pencil case! Nor are children allowed any working out paper.
3. Children must complete the test on their own, without discussing any of the questions. They are not allowed to ask if a question can be repeated.
4. If they want to change an answer, they should cross out the first answer - they are not allowed to rub out an answer.
5. They will be told how long they have to answer each question. 5 seconds is given for the first section and then the time increases to 10, and then 15 seconds as the test progresses.
6. They should answer as many questions as they can. If they find a question too difficult to answer in the time given they should mark the box with a cross. This will stop the possibility of writing the answers in the wrong boxes.
7. The script should be read out exactly as it is on the following pages, with no undue emphasis on any particular words.
8. Afterwards it would be very worthwhile to give praise for all the correct answers and to look together at one or two of the incorrect answers to try and find quick mental ways of solving them. Too much criticism will lead to more failure!

The Script

Read out the following script, using exactly the words written:

Listen carefully to these instructions. When I have finished reading them you may ask questions about the instructions. Once the test has started you will not be able to ask any questions, or ask for a question to be repeated.

I will start by reading one practice question. Then I will ask 20 more questions. On your sheet there is an answer box for each question. Write your answers in these white boxes. I will tell you how long you have for each question.

You should work out the answer to each question in your head. You may want to write something down to help you. Do this anywhere else on the answer sheet. Do not try and write down sums because you will not have the time to do this.

On certain questions some help or information has been given next to the answer box. Use this to help you answer the questions.

I will read out the questions twice. Listen carefully. You will then have time to work out your answer in your head and write it down. If you cannot work the answer out put a cross in that answer box.

If you make a mistake, cross out your mistake and write your new answer clearly, next to it.

Some questions are quite easy, some are harder. Do not be put off if you can't answer a question.

Any questions about these instructions?

Here is the practice question. I will read the question twice and you will have 5 seconds to write down the answer.

What is half of twenty six?

What is half of twenty six?

(Wait 5 seconds). Now put down your pen.

(Check that the child is answering in the correct box. Good luck!!)

Test questions 1- 10

The test will start now. For this group of questions you will have 5 seconds to work out the answer to each question and write it down.

	The questions:	Pupil sheet	
1.	What is double twenty-five?		
2.	What is twenty-four more than fifty?		24 50
3.	Write the number ten thousand and forty-two in figures.		
4.	A bag contains yellow and green balls. The probability of taking out a green ball is three quarters. What is the probability of taking a yellow ball out?		
5.	If two angles of a triangle add up to 100^0 , what will the third angle be?	degrees	
<i>For the next set of questions you will have ten seconds to work out each answer and write it down.</i>			
6.	Divide twenty by five and add four.		
7.	A bar of chocolate costs 34 pence and an ice-lolly costs 18 pence. How much do they cost together?	p	34p 18p
8.	The difference between a number and forty-nine is ten. What could the number be?		
9.	How many minutes are there in three hours?	minutes	
10.	Look at the equation on your answer sheet. 14 minus n is 5. What is the value of n ?		$14 - n = 5$

Test questions 11 - 20

For this group of questions you will still have ten seconds to work out the answer to each question and write it down.

	The questions:	Pupil sheet	
11.	What is three hundred and sixty two centimetres to the nearest metre?	m	
12.	Sarah paid two pounds twenty for a book. How much change from £5 would she get?	£	£5 £2.20
13.	Put a ring round the approximate mass of an orange.	2g 2kg 10g 20 kg 100 g	
14.	What is half of five point four?		
15.	On your answer sheet is a scale. What is the number shown by the arrow?	<div><div>1.1</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>2.1</div></div>	
<i>For the next set of questions you will have fifteen seconds to work out each answer and write it down.</i>			
16.	A school has exactly twice as many girls as boys. There are 145 boys. How many girls are there?		145
17.	How long is it between ten thirty three and ten fifty?	minutes	
18.	Put a ring round the smallest number on your answer sheet.	2.1 2.01 3.1 4.45 0.99 1.89	
19.	If three angles of a quadrilateral add up to 300 ⁰ , what is the fourth angle?	degrees	
20.	Multiply forty by fifty.		40 50

Pupil answer sheet

Name.....

Practice question

Total marks	
-------------	--

Time: 5 seconds

1	
---	--

1.

12	£	£5 £2.20
----	---	----------

12.

2		24 50
---	--	-------

2.

13	2g 10g 100g 2kg 20kg
----	-------------------------

13.

3	
---	--

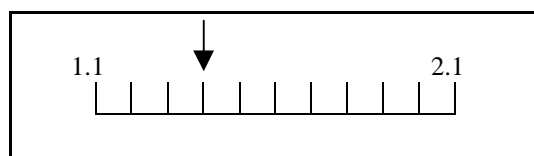
3.

14	
----	--

14.

4	
---	--

4.



5	degrees
---	---------

5.

15	
----	--

15.

Time: 10 seconds

6	
---	--

6.

Time: 15 seconds

16		145
----	--	-----

16.

7	p	34 18
---	---	-------

7.

17	minutes
----	---------

17.

8	
---	--

8.

18	2.1 2.01 3.1 4.45 0.99 1.89
----	--------------------------------

18.

9	minutes
---	---------

9.

19	degrees
----	---------

19.

10		14 - n = 5
----	--	------------

10.

20		40 50
----	--	-------

20.

11	m
----	---

11.

1. 50	12. £2.80
2. 74	13. 100g
3. 10 042	14. 2.7
4. one quarter or $\frac{1}{4}$ or 25%	15. 1.4
5. 80°	16. 290
6. 8	17. 17 minutes
7. 52p	18. 0.99
8. 39 or 59	19. 60°
9. 180 minutes	20. 2 000
10. 9	
11. 4m	

From these questions it can be seen that children are expected to be able to operate quickly, in their heads, including the following:

- | | |
|--|---|
| a. doubling and halving tens and units | g. understand simple equations |
| b. change from £5 or £10 | h. convert centimetres to metres |
| c. understand more than, less than | i. halve simple decimals |
| d. work out probabilities as fractions | j. approximate mass using metric system |
| e. know angle properties of triangles and quadrilaterals | k. multiply by whole tens |
| f. know minutes and hours | |