

Key Stage 2 SATs

Mathematics Practice Test and Mark Scheme

Paper 1: Arithmetic

Pack 2: 2017 (new curriculum)



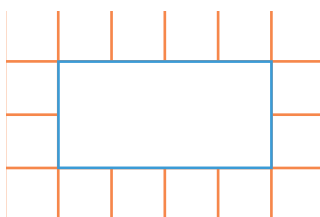
First name	
Last name	
Class	
School	
Score	

Instructions

You **may not** use a calculator to answer any questions in this test.

Questions and answers

- Work as quickly and as carefully as you can.
- Put your answer in the box for each question.



- All answers should be given as a single value.
- For questions expressed as common fractions or mixed numbers, you should give your answers as common fractions or mixed numbers.
- If you cannot do a question, **go on to the next one**. You can come back to it later, if you have time.
- If you finish before the end, **go back and check your work**.

Marks

- The number under each box at the side of the page tells you the maximum number of marks for each question.
- In this test, long division and long multiplication questions are worth **TWO** marks each. You will be awarded **TWO** marks for a correct answer. You may get **ONE** mark for showing a formal method.
- All other questions are worth **ONE** mark each.
- If you finish before the end, **go back and check your work**.

1 $44 \times 2 =$

1 mark

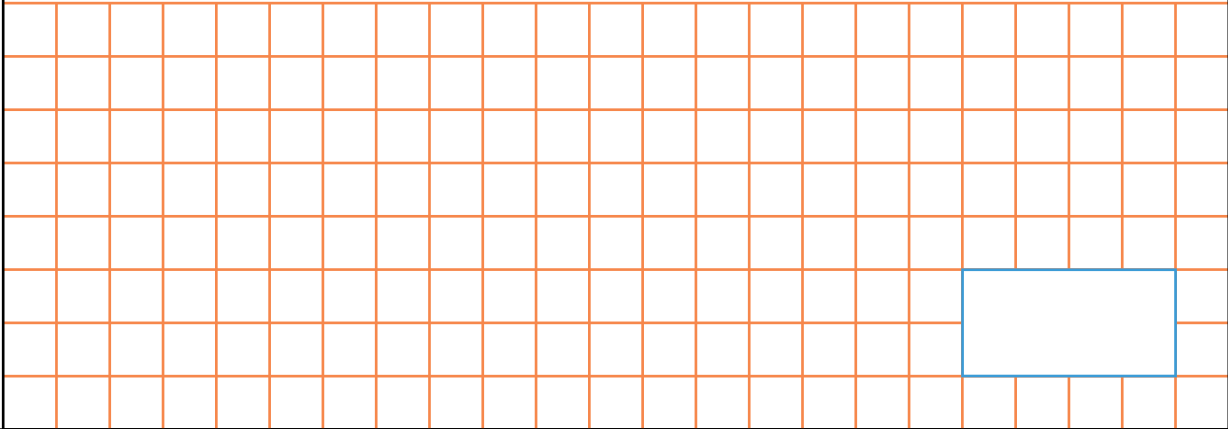
2 $3735 + 100 =$

1 mark

3 $459 \times 0 =$

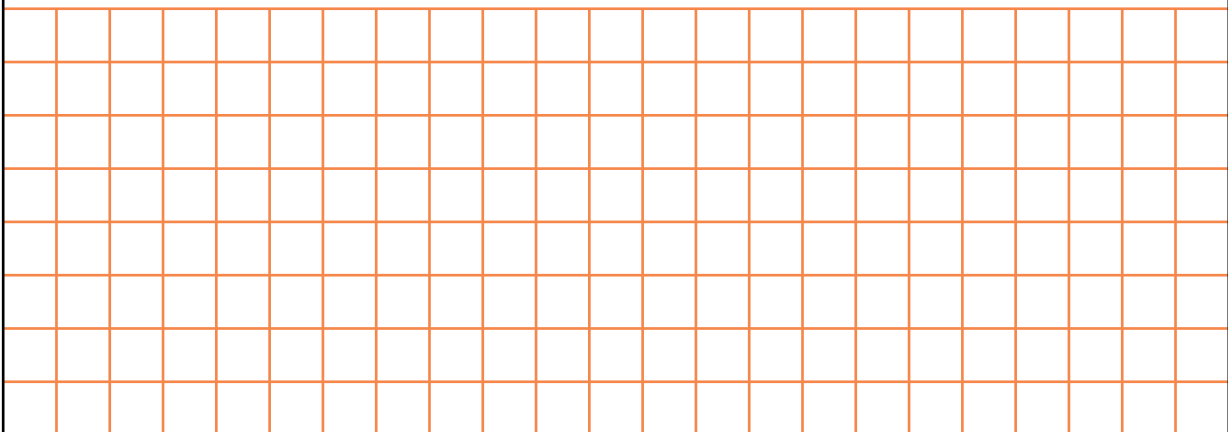
1 mark

4 $742 - 8 =$



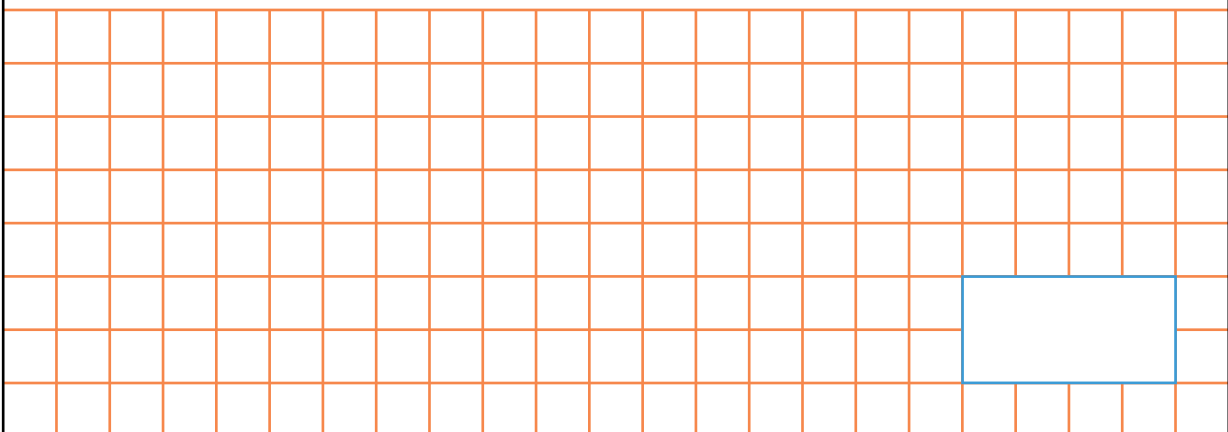
1 mark

5 $= 56 \div 7$



1 mark

6 $69\,997 + 5\,601 =$



1 mark

[illegible]

1 mark[illegible]1 mark1 mark

10 $726 \div 6 =$

1 mark

11 $3 - 12 =$

1 mark

12 $91 =$ $\times 7$

1 mark

13 $263 \div 100 =$

1 mark

14 $26.8 + 1.002 =$

1 mark

15 $40 \times 300 =$

1 mark

16 $2\,407\,562 - 10\,000 =$



1 mark

$$17 \quad \frac{3}{7} + \frac{2}{7} =$$



1 mark

18 | $1\,000 \times 30.7 =$



1 mark

19 | $7\,700 \div 11 =$



1 mark

20 | $24.325 - 9.63 =$



1 mark

$$21 \quad 10\,000\,000 - 101 =$$

1

1 mark

22	$\frac{1}{6} + \boxed{} = \frac{5}{12}$	☐ 1 mark

23	$8^2 + 17 =$	☐ 1 mark

24	$1\frac{4}{9} \times 3 =$	☐ 1 mark

25	$\frac{5}{6}$ of 240 =																				 1 mark

26	$2.56 \times 7 =$																				 1 mark

27																					 2 marks					
	<table border="1"> <tr> <td>1</td><td>9</td><td>4</td><td>5</td><td>6</td> </tr> </table>																					1	9	4	5	6
	1	9	4	5	6																					

28

$$30\% \text{ of } 3\,200 =$$



1 mark

29

	4	6
x	2	3

Show
your
method



2 marks

30

$$\frac{3}{4} \div 3 =$$



1 mark

31

$$7 + 3 \times 5 =$$

☐

1 mark

32

2 7 | 1 4 3 1

Show
your
method

☐

2 marks

33

$$\frac{4}{7} \times \frac{5}{8} =$$

☐

1 mark

34																					
	$ \begin{array}{r} 5208 \\ \times \quad 76 \\ \hline \end{array} $																				
Show your method																					 1 mark

35	$3\frac{1}{4} - 1\frac{2}{3} =$																				
																					 2 marks

36	$\frac{6}{7} \div 4 =$																				
																					 2 marks

The instructions and principles of this mark scheme closely follow the guidance in the 2016 national curriculum tests. We have deliberately not set a limited time for the test paper as a teacher may want to vary it according to the standard individual children are working at.

The national curriculum test allows 30 minutes to complete this test.

Q		Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
1	88		1m		5C6a	Calculations
2	3835		1m		3N2b	Number
3	0		1m		4C6b	Calculations
4	734		1m		3C1	Calculations
5	8		1m		3C7	Calculations
6	75 598		1m		5C2	Calculations
7	6169		1m		4C2	Calculations
8	140		1m		4C6b	Calculations
9	8.7		1m		4F8	Fractions
10	121		1m		5C7b	Calculations
11	-9		1m		6N6	Number
12	13		1m	Do not accept 9	3C7	Calculations
13	2.63		1m		5C6b	Calculations
14	27.802		1m		5F8	Fractions
15	12 000		1m		5C6a	Calculations
16	2 397 562		1m		5C2	Calculations
17	5/7		1m	Accept equivalence	4F4	Fractions
18	30 700		1m		6F9a	Fractions
19	700		1m		5C6a	Calculations
20	14.695		1m		5F8	Fractions

Q	Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
21	9 999 899	1m		5C2	Calculations
22	3/12 or 1/4	1m	Accept equivalence	5F4	Fractions
23	81	1m		6C9	Calculations
24	3 12/9 or 4 1/3	1m	Accept equivalence	5F5	Fractions
25	200	1m		4F10a	Fractions
26	17.92	1m		6F9b	Fractions
27	Award TWO marks for the correct answer of 24 If the answer is incorrect, award ONE mark for the formal methods of division with no more than ONE arithmetical error, i.e. - long division algorithm, e.g. $\begin{array}{r} 24 \text{ r } 2 \\ 19 \overline{) 456} \\ \underline{- 380} \quad (20 \times 19) \\ 76 \\ \underline{- 74} \text{ (error) } (4 \times 19) \\ 2 \end{array} \quad \text{OR} \quad \begin{array}{r} 24 \text{ r } 10 \\ 19 \overline{) 456} \\ \underline{- 38} \quad (2 \times 19) \\ 86 \text{ (error)} \\ \underline{- 76} \quad (4 \times 19) \\ 10 \end{array}$ - short division algorithm, e.g. $\begin{array}{r} 23 \text{ r } 18 \text{ (error)} \\ 19 \overline{) 456} \end{array}$	Up to 2m	Working must be carried through to reach a final answer for the award of ONE mark. Short division methods must be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm, and be a complete method. The carrying figure must be less than the divisor.	6C7b	Fractions

Q	Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
28	960	1m		6R2	Ratio
29	Award TWO marks for the correct answer of 1 058 If the answer is incorrect, award ONE mark for the formal method of long multiplication with no more than ONE arithmetical error, e.g. $ \begin{array}{r} 46 \\ \times 23 \\ \hline 138 \\ + 920 \\ \hline 1048 \text{ (error)} \end{array} \quad \text{OR} \quad \begin{array}{r} 46 \\ \times 23 \\ \hline 136 \text{ (error)} \\ + 920 \\ \hline 1046 \end{array} $	Up to 2m	Working must be carried through to reach a final answer for the award of ONE mark. Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens: $ \begin{array}{r} 46 \\ \times 23 \\ \hline 138 \\ + 92 \text{ (place value error)} \\ \hline 230 \end{array} $	5C7a	Calculations
30	1/4	1m	Accept equivalence	6F5b	Fractions
31	22	1m		6C9	Calculations

Q	Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
32	Award TWO marks for the correct answer of 53 If the answer is incorrect, award ONE mark for the formal methods of division with no more than ONE arithmetical error, i.e. - long division algorithm, e.g. $ \begin{array}{r} 54r13 \\ 27 \overline{) 1431} \\ - 1350 \quad (50 \times 27) \\ \hline 0121 \quad (error) \\ - 108 \quad (4 \times 27) \\ \hline 13 \end{array} \quad \text{OR} \quad \begin{array}{r} 53r3 \\ 27 \overline{) 1431} \\ - 135 \quad (5 \times 27) \\ \hline 0081 \\ - 78 \quad (error)(3 \times 27) \\ \hline 3 \end{array} $ - short division algorithm, e.g. $ \begin{array}{r} 53r10 \\ 27 \overline{) 1431} \quad (error) \end{array} $	Up to 2m	Working must be carried through to reach a final answer for the award of ONE mark. Short division methods must be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm, and be a complete method. The carrying figure must be less than the divisor.	6C7b	Calculations
33	5/14	1m	Accept 20/50 or equivalent fraction	6F5a	Fractions

Q	Requirement	Mark	Additional guidance	Content Domain Ref	Requirement
34	Award TWO marks for the correct answer of 395 808 If the answer is incorrect, award ONE mark for the formal method of long multiplication with no more than ONE arithmetical error, e.g. $ \begin{array}{r} 5208 \\ \times \quad 76 \\ \hline 31248 \\ 364560 \\ \hline 395708 \text{ (error)} \end{array} \quad \text{OR} \quad \begin{array}{r} 5208 \\ \times \quad 76 \\ \hline 31208 \text{ (error)} \\ 364560 \\ \hline 395768 \end{array} $	1m 1m 1m	Working must be carried through to reach a final answer for the award of ONE mark. Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:	6C7a	Calculations
35	1 7/12	Up to		6F4	Fractions
36	3/14	2m		6F5b	Fractions



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Lisa Graham, Deputy Head, St Hughes C-of-E Primary

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Millie, Year 5, Worcester