



THIRD SPACE
LEARNING

Key Stage 2 SATs Paper 1: Arithmetic Pack 1

Mathematics Practice Test and
Mark Scheme

Year 6

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.**

Questions

1

$997 + 10 =$

A large grid for working out the answer to question 1. The grid is 20 squares wide and 15 squares high. A horizontal line is drawn across the top of the grid, just below the question number and equation. A rounded rectangular box is drawn in the bottom right corner of the grid, intended for the final answer.

1 mark

2

$39 + 621 =$

A large grid for working out the answer to question 2. The grid is 20 squares wide and 15 squares high. A horizontal line is drawn across the top of the grid, just below the question number and equation. A rounded rectangular box is drawn in the bottom right corner of the grid, intended for the final answer.

1 mark

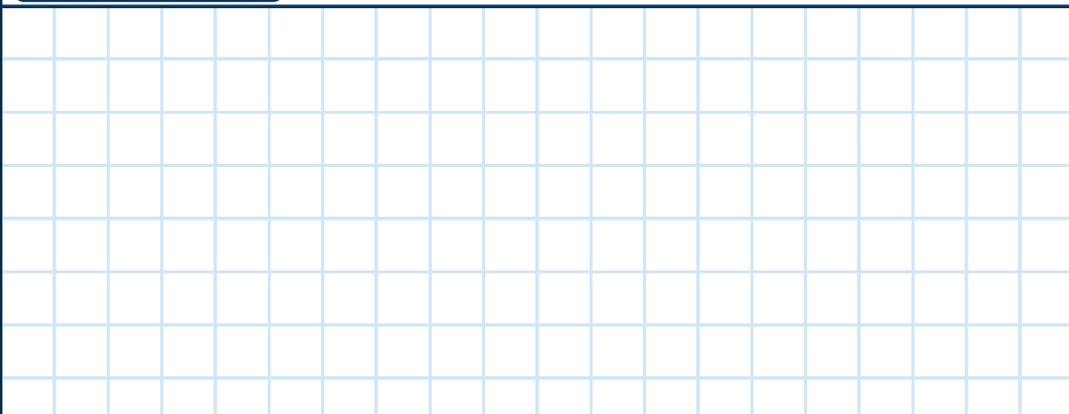
3

$1,023 - 100 =$

A large grid for working out the answer to question 3. The grid is 20 squares wide and 15 squares high. A horizontal line is drawn across the top of the grid, just below the question number and equation. A rounded rectangular box is drawn in the bottom right corner of the grid, intended for the final answer.

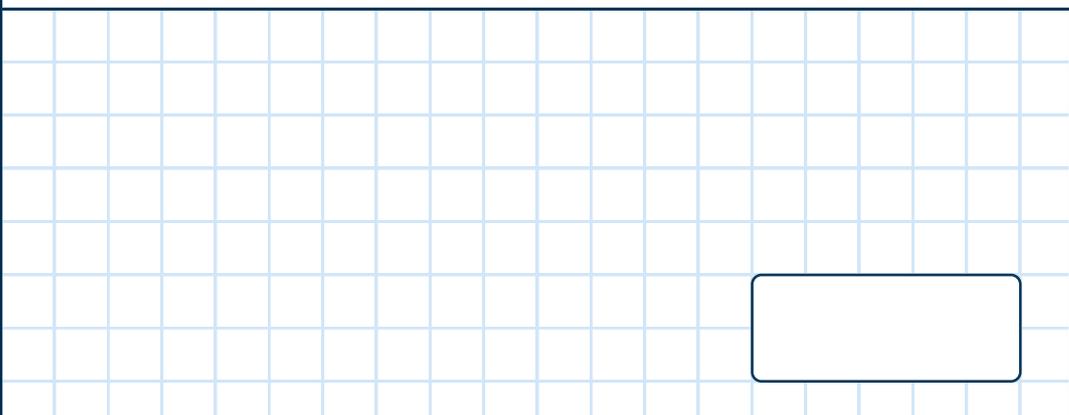
1 mark

4 = 607 + 598



1 mark

5 396 - 9 =



1 mark

6 542 x = 542



1 mark

7	$86 \div 2 =$	<input data-bbox="1332 560 1412 638" type="checkbox"/> 1 mark
 <input data-bbox="989 548 1252 660" type="text"/>		

8	<input data-bbox="247 772 518 873" type="text"/> $= 1,000 - 75$	<input data-bbox="1332 1153 1412 1232" type="checkbox"/> 1 mark
		

9	$79,968 + 3,403 =$	<input data-bbox="1332 1747 1412 1825" type="checkbox"/> 1 mark
 <input data-bbox="989 1736 1252 1848" type="text"/>		

10

$3 \times 6 \times 5 =$

A large grid for working out the answer to question 10. The grid is 20 squares wide and 15 squares high. A horizontal line is drawn across the top of the grid, just below the question number and equation. A rounded rectangular box is drawn at the bottom right of the grid, intended for the final answer.

1 mark

11

$768 \times 5 =$

A large grid for working out the answer to question 11. The grid is 20 squares wide and 15 squares high. A horizontal line is drawn across the top of the grid, just below the question number and equation. A rounded rectangular box is drawn at the bottom right of the grid, intended for the final answer.

1 mark

12

$90 \times 40 =$

A large grid for working out the answer to question 12. The grid is 20 squares wide and 15 squares high. A horizontal line is drawn across the top of the grid, just below the question number and equation. A rounded rectangular box is drawn at the bottom right of the grid, intended for the final answer.

1 mark

13

$$902 \div 100 =$$

A large grid area for working out the answer to question 13. The grid is 20 squares wide and 15 squares high. A rounded rectangular box is positioned in the bottom right corner of the grid, intended for the final answer.

1 mark

14

$$2.061 + 5.52 =$$

A large grid area for working out the answer to question 14. The grid is 20 squares wide and 15 squares high. A rounded rectangular box is positioned in the bottom right corner of the grid, intended for the final answer.

1 mark

15

$$267.54 - 93.4 =$$

A large grid area for working out the answer to question 15. The grid is 20 squares wide and 15 squares high. A rounded rectangular box is positioned in the bottom right corner of the grid, intended for the final answer.

1 mark

16

$$536 \div 4 =$$

1 mark

17

$$284,381 - 13,999 =$$

1 mark

18

$$5^2 - 14 =$$

1 mark

19

$= 1.007 \times 10$

1 mark

20

$8 - 1.99 =$

1 mark

21

$$\begin{array}{r} 62 \\ \times 25 \\ \hline \end{array}$$

Show
your
method

2 marks

22

30% of 2,400 =

A large grid for working out the answer to question 22. The grid is 20 squares wide and 15 squares high. A horizontal line is drawn across the top of the grid, just below the question text. A rounded rectangular box is positioned in the bottom right corner of the grid, intended for the final answer.

1 mark

23

1,265 ÷ 11 =

A large grid for working out the answer to question 23. The grid is 20 squares wide and 15 squares high. A horizontal line is drawn across the top of the grid, just below the question text. A rounded rectangular box is positioned in the bottom right corner of the grid, intended for the final answer.

1 mark

24

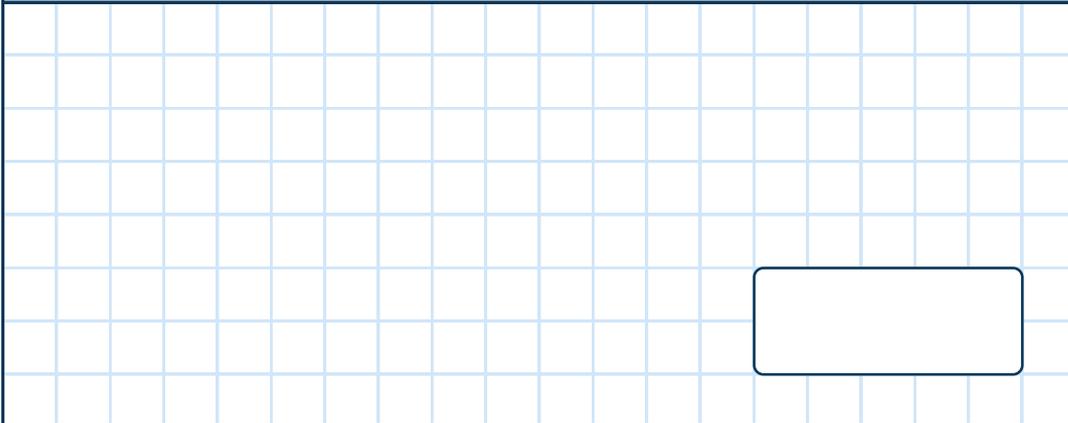
23 × 5.4 =

A large grid for working out the answer to question 24. The grid is 20 squares wide and 15 squares high. A horizontal line is drawn across the top of the grid, just below the question text. A rounded rectangular box is positioned in the bottom right corner of the grid, intended for the final answer.

1 mark

25

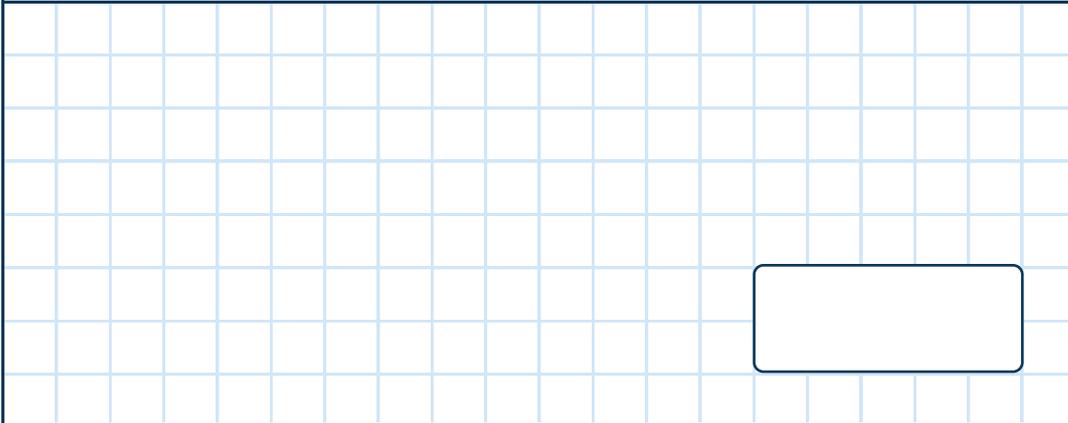
$$\frac{4}{9} + \frac{7}{9} =$$



1 mark

26

$$\frac{3}{4} - \frac{1}{8} =$$



1 mark

27

$$5\% \text{ of } 680 =$$



1 mark

28

$$\begin{array}{r} 7085 \\ \times \quad 43 \\ \hline \end{array}$$

Show
your
method

2 marks

29

$$26 \overline{) 884}$$

Show
your
method

2 marks

30

$$\frac{7}{8} + 2\frac{5}{16} =$$

1 mark

31

$$\frac{6}{11} \div 3 =$$

1 mark

32

$$\frac{1}{2} \times \frac{3}{4} =$$

1 mark

33

$$1\frac{1}{5} - \frac{1}{2} =$$

1 mark

34

$$47 \overline{) 1269}$$

Show
your
method

2 mark

35

$$\frac{3}{7} \times 175 =$$

1 mark

36

$$8^2 - 3 \times 2$$

1 mark

Mark Scheme

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.

Answers

Question Number	Requirement	Mark	Additional guidance	Content Domain Ref	NC strand
1	1,007	1m		3N2b	Number
2	660	1m		3C2	Calculations
3	923	1m		3N2b	Number
4	1,205	1m		3C2	Calculations
5	387	1m		3C1	Calculations
6	1	1m		4C6b	Calculations
7	43	1m		3C7	Calculations
8	925	1m		5C1	Calculations
9	83,371	1m		5C2	Calculations
10	90	1m		4C6b	Calculations

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Question Number	Requirement	Mark	Additional guidance	Content Domain Ref	NC strand
11	3,840	1m		4C7	Calculations
12	3,600	1m		5C6a	Calculations
13	9.02	1m		5C6b	Calculations
14	7.581	1m		5F10	Fractions
15	174.14	1m		5F10	Fractions
16	134	1m		5C7b	Calculations
17	270,382	1m		5C2	Calculations
18	11	1m		6C9	Calculations
19	10.07	1m		6F9a	Fractions
20	6.01	1m		5F10	Fractions

Key Stage 2 SATs Mathematics Practice test | Paper 1: Arithmetic | Answers

Question Number	Requirement	Mark	Additional guidance	Content Domain Ref	NC strand
21	<p>Award TWO marks for the correct answer of 1,550</p> <p>If the answer is incorrect, award ONE mark for the formal method of long multiplication with no more than ONE arithmetical error, e.g.</p> $\begin{array}{r} 62 \\ \times 25 \\ \hline 310 \\ 1240 \\ \hline 1650 \text{ (error)} \end{array}$ <p>or</p> $\begin{array}{r} 62 \\ \times 25 \\ \hline 310 \\ 1240 \\ \hline 1650 \text{ (error)} \end{array}$	Up to 2m	<p>Working must be carried through to reach a final answer for the award of ONE mark.</p> <p>Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:</p> $\begin{array}{r} 62 \\ \times 25 \\ \hline 310 \\ 124 \text{ (place value error)} \\ \hline 434 \end{array}$	5C7a	Calculations

Key Stage 2 SATs Mathematics Practice test | Paper 1: Arithmetic | Answers

Question Number	Requirement	Mark	Additional guidance	Content Domain Ref	NC strand
22	720	1m	Do not accept 720%	6R2	Ratio
23	115	1m		5C6a	Calculations
24	124.2	1m		6F9b	Fractions
25	$1\frac{2}{9}$ OR $\frac{11}{9}$	1m	Accept equivalent fractions or the exact decimal equivalent, e.g. 1.222... (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.	4F4	Fractions
26	$\frac{5}{8}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. 0.625	5F4	Fractions
27	34	1m	Do not accept 34%	6R2	Ratio

Key Stage 2 SATs Mathematics Practice test | Paper 1: Arithmetic | Answers

Question Number	Requirement	Mark	Additional guidance	Content Domain Ref	NC strand
28	<p>Award TWO marks for the correct answer of 304,655</p> <p>If the answer is incorrect, award ONE mark for the formal method of long multiplication with no more than ONE arithmetical error, e.g.</p> $\begin{array}{r} 7085 \\ \times 43 \\ \hline 21255 \\ 283200 \\ \hline 204455 \text{ (error)} \end{array}$ <p>or</p> $\begin{array}{r} 7085 \\ \times 43 \\ \hline 21255 \\ 283200 \\ \hline 204455 \text{ (error)} \end{array}$	Up to 2m	<p>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:</p> $\begin{array}{r} 7085 \\ \times 43 \\ \hline 21255 \\ 28340 \text{ (place value error)} \\ \hline 49595 \end{array}$	6C7a	Calculations

Key Stage 2 SATs Mathematics Practice test | Paper 1: Arithmetic | Answers

Question Number	Requirement	Mark	Additional guidance	Content Domain Ref	NC strand
29	<p>Award TWO marks for the correct answer of 34. If the answer is incorrect, award ONE mark for the formal methods of division with no more than ONE arithmetical error, i.e.</p> <ul style="list-style-type: none"> • long division algorithm, e.g. $\begin{array}{r} 34 \text{ r } 8 \\ 26 \overline{) 884} \\ \underline{- 780} \quad (30 \times 26) \\ 104 \\ \underline{78} \quad (3 \times 26) \\ 34 \quad (\text{error}) \\ \underline{26} \quad (1 \times 26) \end{array}$ <p>or</p> $\begin{array}{r} 33 \quad (\text{error}) \\ 26 \overline{) 884} \\ \underline{- 78} \quad (3 \times 26) \\ 104 \\ \underline{104} \quad (4 \times 26) \\ 0 \end{array}$ <ul style="list-style-type: none"> • short division algorithm, e.g. $\begin{array}{r} 34 \\ 26 \overline{) 884} \end{array}$	Up to 2m	<p>Working must be carried through to reach a final answer for the award of ONE mark. E.g. evidence of correct working with no final solution:</p> $\begin{array}{r} 26 \overline{) 884} \\ \underline{- 78} \quad (3 \times 26) \\ 104 \\ \underline{104} \quad (4 \times 26) \\ 0 \end{array}$	6C7a	Calculations

Key Stage 2 SATs Mathematics Practice test | Paper 1: Arithmetic | Answers

Question Number	Requirement	Mark	Additional guidance	Content Domain Ref	NC strand
30	$3\frac{3}{16}$ OR $\frac{51}{16}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. 3.1875 Do not accept for e.g. $2\frac{19}{16}$	6F4	Fractions
31	$\frac{2}{11}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. 0.1818... (accept any unambiguous indication of the recurring digits).	6F5b	Fractions
32	$\frac{3}{8}$	1m	Accept equivalent fractions or the exact decimal equivalent, e.g. 0.375 Do not accept rounded or truncated decimals.	6F5a	Fractions
33	$\frac{7}{10}$	1m	Accept equivalent fractions or the exact decimal equivalent e.g. 0.7	6F4	Fractions

Key Stage 2 SATs Mathematics Practice test | Paper 1: Arithmetic | Answers

Question Number	Requirement	Mark	Additional guidance	Content Domain Ref	NC strand
34	<p>Award TWO marks for the correct answer of 27</p> <p>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.</p> $\begin{array}{r} 27 \text{ r } 20 \\ 47 \overline{) 1269} \\ \underline{- 940} \\ 329 \\ \underline{- 235} \\ 114 \\ \underline{- 94} \\ 20 \end{array}$ <p>or</p> $\begin{array}{r} 26 \text{ r } 27 \\ 47 \overline{) 1269} \\ \underline{- 96} \\ 309 \\ \underline{- 282} \\ 27 \end{array}$ <p>• short division algorithm, e.g.</p> $\begin{array}{r} 26 \\ 47 \overline{) 1269} \\ \underline{94} \\ 329 \\ \underline{282} \\ 27 \end{array} \text{ (error)}$	Up to 2m	<p>Working must be carried through to reach a final answer for the award of ONE mark. E.g. evidence of correct working with no final solution:</p> $\begin{array}{r} 47 \overline{) 1269} \\ \underline{- 940} \text{ (20 x 47)} \\ 329 \\ \underline{- 235} \text{ (5 x 47)} \\ 94 \\ \underline{- 94} \text{ (2 x 47)} \\ 0 \end{array}$	6C7a	Calculations

Key Stage 2 SATs Mathematics Practice test | Paper 1: Arithmetic | Answers

Question Number	Requirement	Mark	Additional guidance	Content Domain Ref	NC strand
35	75	1m		5F5	Fractions
36	58	1m		6C9	Calculations

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