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 =

1 mark

**2** 39 + 621 =

1 mark

**3** 1,023 – 100 =

1 mark

4 ☐ = 607 + 598

1 mark

5 396 – 9 =

1 mark

6 542 x ☐ = 542

1 mark

7 $86 \div 2 =$

1 mark

8 $\square = 1{,}000 - 75$

1 mark

9 $79{,}968 + 3{,}403 =$

1 mark

10 $3 \times 6 \times 5 =$

1 mark

11 $768 \times 5 =$

1 mark

12 $90 \times 40 =$

1 mark

 

13 902 ÷ 100 =

1 mark

14 2.061 + 5.52 =

1 mark

15 267.54 – 93.4 =

1 mark

 

16 $536 \div 4 =$

1 mark

17 $284{,}381 - 13{,}999 =$

1 mark

18 $5^2 - 14 =$

1 mark

**19** ☐ = 1.007 x 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 =

1 mark

23 1,265 ÷ 11 =

1 mark

24 23 x 5.4 =

1 mark

 

25 $\frac{4}{9} + \frac{7}{9} =$

1 mark

26 $\frac{3}{4} - \frac{1}{8} =$

1 mark

27 5% of 680 =

1 mark

**28**

Show your method

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

2 marks

**29**

Show your method

$$26 \overline{)8844}$$

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**

Show your method

$47 \overline{)1269}$

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 |

| 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 |

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

| 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 |

 

| Question Number | Requirement | Mark | Additional guidance | Content Domain Ref | NC strand |
|---|---|---|---|---|---|
| 28 | Award **TWO** marks for the correct answer of 304,655<br>If the answer is incorrect, award **ONE** mark for the formal method of long multiplication with no more than **ONE** arithmetical error, e.g.<br>7085 × 43<br>21255<br>283200 +<br>204455 *(error)*<br>or<br>7085 × 43<br>21255<br>283200 +<br>204455 *(error)* | Up to 2m | Working must be carried through to reach a final answer for the award of **ONE** mark.<br>Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:<br>7085 × 43<br>21255<br>28340 *(place value error)*<br>49595 | 6C7a | Calculations |

| Question Number | Requirement | Mark | Additional guidance | Content Domain Ref | NC strand |
|---|---|---|---|---|---|
| 29 | 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.<br>• long division algorithm, e.g.<br>34 r 8<br>26 ⟌ 884<br>- 780 (30 x 26)<br>104<br>78 (3 x 26)<br>34 *(error)*<br>26 (1 x 26)<br>or<br>33 *(error)*<br>26 ⟌ 884<br>- 78 (3 x 26)<br>104<br>104 (4 x 26)<br>0<br>• short division algorithm, e.g.<br>34<br>26 ⟌ 88$^{10}$4 | Up to 2m | 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:<br>26 ⟌ 884<br>- 78 (3 x 26)<br>104<br>104 (4 x 26)<br>0 | 6C7a | Calculations |

 

| 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<br>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<br>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 |

 

| Question Number | Requirement | Mark | Additional guidance | Content Domain Ref | NC strand |
|---|---|---|---|---|---|
| 34 | Award **TWO** marks for the correct answer of 27<br><br>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.<br>27 r 20<br>47 \| 1269<br>- 940 (20 x 47)<br>329<br>- 235 *(error)* (5 x 47)<br>114<br>- 94 (2 x 47)<br>20<br>or<br>26 r 27<br>47 \| 1269<br>- 96 *(error)* (2 x 47)<br>309<br>- 282 (6 x 47)<br>27<br>• short division algorithm, e.g.<br>26<br>47 \| 1269 *(error)* | Up to 2m | 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:<br>47 \| 1269<br>- 940 (20 x 47)<br>329<br>- 235 (5 x 47)<br>94<br>- 94 (2 x 47)<br>0 | 6C7a | Calculations |

| 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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