Maths SATs paper 1: arithmetic

|  |  |
| --- | --- |
| **First name** |   |
| **Middle name** |   |
| **Last name** |   |
| **Date of birth** | **Day**  | **Month**  | **Year**  |
| **School name** |   |

**Instructions**

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

**Questions and answers**

You have **30 minutes** to complete this test.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

If you need to do working out, you can use the space around the question.

**Some questions have a method box like this:**

**Show your method**

For these questions, you may get a mark for showing your method.

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 line at the side of the page tells you the maximum number of marks for each question.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. 70 + 1000 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 909 + 1535 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. $\frac{6}{8}$ + $\frac{5}{8}$ =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 435 ÷ 1 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 632 − 70 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 5.3 + 2.019 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. 7600 + 500 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 7 x 44 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 54 ÷ 9 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 149 x 6 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 5726 - 613 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. $\frac{62}{100}$ − $\frac{46}{100}$ =

|  |  |
| --- | --- |
|  |  |
|  | 1. **mark**
 |

 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. − 200 = 2073

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 70 + (24 ÷ 4) =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. $\frac{6}{8}$ x $\frac{3}{5}$ =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 40 x 60 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 711 ÷ 9 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 0.08 ÷ 10 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. 3456 x 1000 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
|

|  |  |
| --- | --- |
| 17 | 714 |

1.

|  |  |
| --- | --- |
|  |  |
|  | **2 marks** |

 |
| 1. 8 – 4.62 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
|

|  |  |
| --- | --- |
| 3974 | x |
| 32 |
|  |  |

|  |  |
| --- | --- |
|  |  |
|  | **2 marks** |

 |
| 1. $\frac{3}{4}$ − $\frac{3}{8}$ =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
|

|  |  |
| --- | --- |
| 527 | x |
| 36 |
|  |  |

|  |  |
| --- | --- |
|  |  |
|  | **2 marks** |

 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. 58.7 − 23.564 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. $\frac{1}{3}$ + $\frac{1}{4}$ + $\frac{1}{12}$ =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. $\frac{6}{7}$ ÷ 6 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. $\frac{7}{10}$ ÷ 2 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 65% of 540 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. $3\frac{1}{5}$ + $\frac{3}{10}$ =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. 11% of 600 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. $\frac{3}{4}$ − $\frac{1}{5}$ =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 0.7 x 300 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. 19% x 1000 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
| 1. $2\frac{1}{4}$ x 49 =

|  |  |
| --- | --- |
|  |  |
|  | **1 mark** |

 |
|

|  |  |
| --- | --- |
| 67 | 3283 |

|  |  |
| --- | --- |
|  |  |
|  | **2 marks** |

 |

**The end**

**Answers**

|  |  |  |  |
| --- | --- | --- | --- |
| **Qu.** | **Requirement**  | **Mark** | **Additional Guidance** |
| **1.** | 1,070 | **1** |  |
| **2.** | 2,444 | **1** |  |
| **3.** | $1 \frac{3}{8}$ or $\frac{11}{8}$ | **1** | Accept equivalent mixed numbers, fractions or an **exact** decimal equivalent, e.g. 1.375. **Do not** accept rounded or truncated decimals. |
| **4.** | 435 | **1** |  |
| **5.** | 562 | **1** |  |
| **6.** | 7.319 | **1** |  |
| **7.** | 8,100 | **1** |  |
| **8.** | 308 | **1** |  |
| **9.** | 6 | **1** |  |
| **10.** | 894 | **1** |  |
| **11.** | 5,113 | **1** |  |
| **12.** | $$\frac{4}{25}$$ | **1** | Accept equivalent fractions or an exact decimal equivalent, e.g. $\frac{16}{100}$, $\frac{8}{50} $or 0.16 |
| **13.** | 2,273 | **1** |  |
| **14.** | 76 | **1** |  |
| **15.** | $$\frac{9}{20}$$ | **1** | Accept equivalent fractions or an exact decimal equivalent, e.g. $\frac{18}{40}$ or 0.16 |
| **16.** | 2,400 | **1** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **17.** | 79 | **1** |  |
| **18.** | 0.008 | **1** |  |
| **19.** | 3,456,000 | **1** |  |
| **20.** | Award **TWO** marks for the correct answer of 42. If the answer is incorrect, award **ONE** mark for a formal method of division with no more than **ONE** arithmetic error. | **2** | 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. |
| **21.** | 3.38 | **1** |  |
| **22.** | Award **TWO** marks for the correct answer of 127,168. If the answer is incorrect, award **ONE** mark for a formal method of long multiplication with no more than **ONE** arithmetic | **2** | 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: |
| **23.** | $$\frac{1}{2}$$ | **1** | Accept equivalent fractions or an exact decimal equivalent, e.g. 0.5 |
| **24.** | Award **TWO** marks for the correct answer of 18972. If the answer is incorrect, award **ONE** mark for a formal method of long multiplication with no more than **ONE** arithmetic error. | **2** | 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. |
| **25.** | 35.136 | **1** |  |
| **26.** | $$\frac{2}{3}$$ | **1** | Accept equivalent fractions or an **exact** decimal equivalent, e.g. $0.6\overbar{6}$ (accept any unambiguous indication of the recurring digit). |

|  |  |  |  |
| --- | --- | --- | --- |
| **27.** | $$\frac{1}{7}$$ | **1** | An equivalent fraction or decimal e.g. 0.142 to 3d.p.  |
| **28.** | $$\frac{7}{20}$$ | **1** | Accept equivalent fractions or an **exact** decimal equivalent, e.g. 0.35 |
| **29.** | 351 | **1** | **Do not** accept 351% |
| **30.** | $3\frac{1}{2}$ or $\frac{35}{10}$ | **1** | Accept equivalent mixed numbers, fractions or an **exact** decimal equivalent, e.g. 3.5 **Do not** accept rounded or truncated decimals. Do not accept $2\frac{3}{2}$ |
| **31.** | 66 | **1** | **Do not** accept 66% |
| **32.** | $$\frac{11}{20}$$ | **1** | Accept equivalent fractions or an **exact** decimal equivalent, e.g. $\frac{22}{40}$ or 0.55**Do not** accept rounded or truncated decimals. |
| **33.** | 210 | **1** |  |
| **34.** | 190 | **1** | **Do not** accept 190% |
| **35.** | $$110 \frac{1}{4}$$ | **1** | Accept equivalent fractions or an **exact** decimal equivalent e.g. $\frac{441}{4}$ or 110.25 |
| **36.** | Award **TWO** marks for the correct answer of 49.If the answer is incorrect, award **ONE** mark for a formal method of division with no more than **ONE** arithmetic error. | **2** | Working must be carried through to reach a final answer for the award of **ONE** markShort 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. |
| **Total** = 40 marks |