

Key Stage 2

Mathematics

Test 3: arithmetic (solutions)

| | | | | | | |
|---------------|-----|--|-------|--|------|--|
| Name | | | | | | |
| Date of Birth | Day | | Month | | Year | |
| School | | | | | | |

Instructions

These solutions here correspond to the related exercise booklet. You can work on the tasks from the exercise booklet in class or at home independently. It is well known that repeated practising of exercises is more effective than re-reading information over and over again when it comes to revision. Therefore, you should try to follow the steps below:

- Always try to solve the exercise yourself first.
- Then compare your solution with the actual solution from this booklet. You will be able to check whether you have understood the task correctly or not.
- If you notice that you have not understood the task correctly, try solving it again.
- If you still have problems solving the task, ask your teacher or parent for help.
- Also make a note of the tasks you have difficulties with and try solving them again at a later time.
- Practicing the exercises should be spaced out over time so that it is most effective for you.

Best wishes!

7

$180 \div 2 =$

1 mark

$$\begin{array}{r} 90 \\ 2 \overline{)180} \end{array}$$

90

8

$140 \div 14 =$

1 mark

$$\begin{array}{r} 10 \\ 14 \overline{)140} \end{array}$$

10

9

$494 \times 0 =$

1 mark

$$\begin{array}{r} 494 \\ \times \quad 0 \\ \hline 0 \end{array}$$

Whenever you multiply by "0" the answer is always "0"!

0

10

$52 \div 4 =$

1 mark

$$\begin{array}{r}
 13 \\
 4 \overline{)52} \\
 \underline{-4} \\
 12 \\
 \underline{-12} \\
 0
 \end{array}$$

13

11

= 68 - 38

1 mark

$$\begin{array}{r}
 68 \\
 - 38 \\
 \hline
 30
 \end{array}$$

12

$401 - \text{[]} = 394$

1 mark

$401 - \text{[? ?]} = 394$

①
Rearrange!

$401 - 394 = \text{[? ?]}$

$$\begin{array}{r}
 39 \\
 \cancel{4} \cancel{0} 1 \\
 - 394 \\
 \hline
 7
 \end{array}$$

②
Calculate!

13

$1,430 \div 13 =$

1 mark

$$\begin{array}{r}
 110 \\
 13 \overline{) 1430} \\
 \underline{- 13} \\
 13 \\
 \underline{- 13} \\
 00 \\
 \underline{- 0} \\
 0
 \end{array}$$

110

14

$38.35 \times 10 =$

①

Count the zeros!

1 mark

$38.35 \times 10 =$

②

$38.35 \times 1 = 38.35$ Calculate!

③

Move the digits 1
place to the left!

383.5

383.5

15

$40 \div (80 - 76) =$

1 mark

$40 \div (80 - 76) =$

Calculate
brackets first!

$40 \div 4 = 10$

10

16

$4^3 =$

1 mark

$4 \times 4 \times 4 =$

$16 \times 4 = 64$

$$\begin{array}{r} 16 \\ \times 4 \\ \hline 64 \end{array}$$

64

17

$305 \times 2,000 =$

1 mark

$305 \times 2000 =$ Count the zeros! ^①

$$\begin{array}{r} 305 \\ \times 2 \\ \hline 610 \end{array}$$

Calculate! ^②
^③ Move digits 3 places to the left and add 3 place holders!

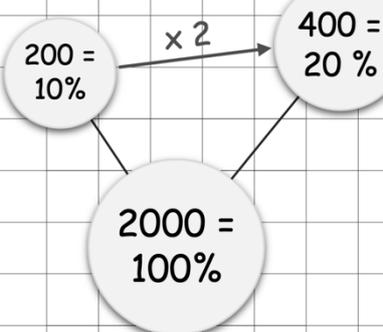
610000

610,000

18

$20\% \text{ of } 2,000 =$

1 mark



400

19

$5 - 2.55 =$

1 mark

$$\begin{array}{r}
 4 \\
 \cancel{5} \\
 - 2.55 \\
 \hline
 2.45
 \end{array}$$

Add decimal point and place holders!
 Make sure decimal points are lined up!

2.45

20

$0.3 \div 100 =$

1 mark

$$0.3 \div 100 =$$

① Count the zeros!

$$0.3 \div 1 = 0.3$$

② Calculate!

③ Move digits 2 places to the right!

$$0.003$$

0.003

21

$5 - 2.5 =$

1 mark

$$\begin{array}{r}
 4 \\
 \cancel{5} \\
 - 2.5 \\
 \hline
 2.5
 \end{array}$$

Add decimal point and place holder!
 Make sure decimal points are lined up!

2.5

25

| | | | |
|------------------|---|---|--|
| | $\begin{array}{r} 13 \\ 74 \overline{)962} \\ \underline{-74} \\ 222 \\ \underline{-222} \\ 0 \end{array}$ | $\begin{array}{l} 74 \times 1 = 74 \\ 74 \times 2 = 148 \\ 74 \times 3 = 222 \end{array}$ | <input style="width: 40px; height: 30px;" type="text"/> 2 marks |
| Show your method | <div style="border: 1px solid black; width: 150px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">13</div> | | |

26

$1 \frac{2}{3} + 2 \frac{1}{2} =$

$\frac{2}{3} \xrightarrow{\times 2} \frac{4}{6} \quad \frac{1}{2} \xrightarrow{\times 3} \frac{3}{6}$

① $1 \frac{2}{3} + 2 \frac{1}{2} =$ ③ $1 \frac{4}{6} + 2 \frac{3}{6} =$

LCM = 6 ④ $1 + 2 + \frac{4}{6} + \frac{3}{6} = 3 \frac{7}{6}$

$3 + 1 + \frac{1}{6} = 4 \frac{1}{6}$

$4 \frac{1}{6}$

1 mark

27

55% of 640 =

$320 = 50\%$
 $640 = 100\%$

$\div 10$
 $32 = 5\%$

$320 + 32 = 352$

352

1 mark

28

$$\frac{6}{9} - \frac{1}{6} =$$

1 mark

$\frac{6}{9} - \frac{1}{6} =$
 (1) L C M = 18 (3) Calculate!
 $\frac{12}{18} - \frac{3}{18} = \frac{9}{18} = \frac{1}{2}$
 (2) $\frac{6}{9} \xrightarrow{\times 2} \frac{12}{18}$ $\frac{1}{6} \xrightarrow{\times 3} \frac{3}{18}$

$\frac{1}{2}$

29

54% of 800 =

1 mark

$8 = 1\%$ $400 = 50\%$
 $800 = 100\%$ $32 = 4\%$
 $4000 + 320 = 4320$
 $4000 + 320 = 4320$

432

30

$$\begin{array}{r}
 1734 \\
 \times 72 \\
 \hline
 121380 \\
 124848 \\
 \hline
 124848
 \end{array}$$

2 marks

Show your method

Add a place holder

124,848

31

$$\frac{2}{5} \div 6 =$$

1 mark

$$\frac{2}{5} \div 6 =$$

$$\frac{2}{5} \div \frac{6}{1} = \text{Multiply by reciprocal!}$$

$$\frac{2}{5} \times \frac{1}{6} = \frac{2}{30} = \frac{1}{15}$$

$$\frac{1}{15}$$

32

$$3 \frac{2}{3} - \frac{4}{6} =$$

①

Change to an improper fraction: $3 \frac{2}{3} = \frac{11}{3}$

1 mark

②

$$\frac{11}{3} - \frac{4}{6} =$$

$$L \quad C \quad M = 6$$

④

$$\frac{22}{6} - \frac{4}{6} = \frac{18}{6} = 3$$

③

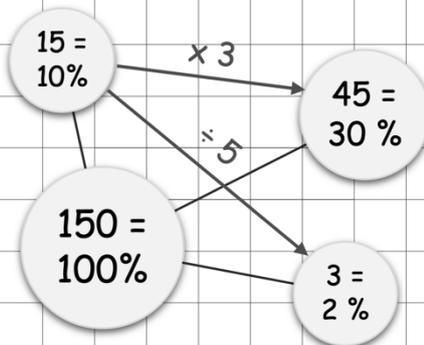
$$\frac{11}{3} \begin{matrix} \times 2 \\ = \\ \frac{22}{6} \end{matrix}$$

$$3$$

33

$$32\% \text{ of } 150 =$$

1 mark



$$45 + 3 = 48$$

$$48$$

34 $4 \frac{3}{7} \times 30 =$

① Change to improper fractions:
 $4 \frac{3}{7} = \frac{31}{7}$ & $30 = \frac{30}{1}$

② $\frac{31}{7} \times \frac{30}{1} = \frac{930}{7} = 132 \frac{6}{7}$

③

| | | | | | |
|---|--|---|---|---|--|
| | | | | | |
| | | 3 | 0 | | |
| x | | 3 | 1 | | |
| | | 3 | 0 | | |
| | | 9 | 0 | 0 | |
| | | 9 | 3 | 0 | |

④

| | | | | | |
|---|---|---|---|---|-----|
| | | | | | |
| | | 1 | 3 | 2 | r 6 |
| 7 |) | 9 | 3 | 0 | |
| | | - | 7 | | |
| | | | 2 | 3 | |
| | | - | 2 | 1 | |
| | | | | 2 | 0 |
| | | | - | 1 | 4 |
| | | | | | 6 |

132 $\frac{6}{7}$

1 mark

35 $\frac{3}{4} \times 340 =$

$\frac{3}{4} \times \frac{340}{1} = \frac{1020}{4} = 255$

x

| | | | | | |
|--|--|---|---|---|---|
| | | | | | |
| | | 3 | 4 | 0 | |
| | | 1 | 0 | 2 | 0 |

4

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | 2 | 5 | 5 | |
| 4 |) | 1 | 0 | 2 | 0 |
| | | - | 8 | | |
| | | | 2 | 2 | |
| | | - | 2 | 0 | |
| | | | | 2 | 0 |
| | | | - | 2 | 0 |
| | | | | | 0 |

255

1 mark

36

8 1 x 1 = 8 1

8 1 x 2 = 1 6 2

8 1 x 3 = 2 4 3

8 1 x 4 = 3 2 4

8 1 x 5 = 4 0 5

8 1 x 6 = 4 8 6

8 1 x 7 = 5 6 7

8 1 x 8 = 6 4 8

8 1 x 9 = 7 2 9

Show your method

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | 9 | 3 |
| 8 | 1 |) | 7 | 5 | 3 |
| | | - | 7 | 2 | 9 |
| | | | | 2 | 4 |
| | | - | | 2 | 4 |
| | | | | | 3 |
| | | | | | 0 |

93

2 marks

Published by Cannon Hill Institute
221 Edward Road
Birmingham B12 9LB
United Kingdom

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