

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Information:

These questions have been taken from the KS2 Reasoning test to help your children practise specific question types.

National Curriculum Objectives:

Mathematics Year 4: (4F9) [Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths](#)

Mathematics Year 5: (5C6b) [Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000](#)

Mathematics Year 6: (6F9a) [Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places](#)

Differentiation:

Beginner Identify whether the start number has been multiplied or divided by 10 or 100. Starting number is either a whole number or a number to one decimal place. Aimed at Year 4 Secure/Year 5 Emerging.

Easy Identify whether the start number has been multiplied or divided by 10, 100 or 1000. Starting number is either a whole number or a number to one decimal place. Aimed at Year 5 Developing.

Tricky Identify whether the start number has been multiplied or divided by 10, 100, 1000. Starting number is either a whole number, a number to one decimal place or to two decimal places. Aimed at Year 5 Secure/Year 6 Emerging.

Expert Identify whether the start number has been multiplied or divided by 10, 100, 1000. Starting number is either a whole number, a number to one decimal place, to two decimal places or to three decimal places. Aimed at Year 5 Mastery/Year 6 Developing.

More [Reasoning](#) resources.

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Multiplying and Dividing by 10, 100 and 1000 – Teaching Information

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are four cards.

Use a card to complete each calculation. You can use a card more than once.

$\times 100$

$\div 10$

$\times 10$

$\div 100$

43

= 430

820

= 82

15

= 1.5

43

= 4.3

820

= 8200

15

= 1500

43

= 4300

820

= 8.2

15

= 150

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 1 – Beginner

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are four cards.

Use a card to complete each calculation. You can use a card more than once.

x 100

÷ 10

x 10

÷ 100

27

= 270

9

= 0.9

12

= 1200

27

= 2.7

9

= 900

12

= 1.2

27

= 2700

9

= 90

12

= 120

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 2 – Beginner

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are four cards.

Use a card to complete each calculation. You can use a card more than once.

x 100

÷ 10

x 10

÷ 100

$43 \times 10 = 430$

$820 \div 10 = 82$

$15 \div 10 = 1.5$

$43 \div 10 = 4.3$

$820 \times 10 = 8200$

$15 \times 100 = 1500$

$43 \times 100 = 4300$

$820 \div 100 = 8.2$

$15 \times 10 = 150$

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 1 – Beginner **ANSWERS**

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are four cards.

Use a card to complete each calculation. You can use a card more than once.

x 100

÷ 10

x 10

÷ 100

$27 \times 10 = 270$

$9 \div 10 = 0.9$

$12 \times 100 = 1200$

$27 \div 10 = 2.7$

$9 \times 100 = 900$

$12 \div 10 = 1.2$

$27 \times 100 = 2700$

$9 \times 10 = 90$

$12 \times 10 = 120$

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 2 – Beginner **ANSWERS**

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

6.2

= 0.62

18

= 180

47

= 4.7

6.2

= 620

18

= 0.18

47

= 0.47

6.2

= 0.062

18

= 1.8

47

= 47000

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 1 – Easy

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

4.2

= 4200

93

= 0.93

286

= 0.286

4.2

= 0.42

93

= 9300

286

= 2860

4.2

= 420

93

= 930

286

= 2.86

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 2 – Easy

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

$6.2 \div 10 = 0.62$

$18 \times 10 = 180$

$47 \div 10 = 4.7$

$6.2 \times 100 = 620$

$18 \div 100 = 0.18$

$47 \div 100 = 0.47$

$6.2 \div 100 = 0.062$

$18 \div 10 = 1.8$

$47 \times 1000 = 47,000$

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 1 – Easy **ANSWERS**

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

$4.2 \times 1000 = 4200$

$93 \div 100 = 0.93$

$286 \div 1000 = 0.286$

$4.2 \div 10 = 0.42$

$93 \times 100 = 9300$

$286 \times 10 = 2860$

$4.2 \times 100 = 420$

$93 \times 10 = 930$

$286 \div 100 = 2.86$

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 2 – Easy **ANSWERS**

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

$\times 10$

$\times 100$

$\times 1000$

$\div 10$

$\div 100$

$\div 1000$

16.8

= 168

637

= 0.637

4.84

= 484

16.8

= 0.168

637

= 63,700

4.84

= 4840

16.8

= 1680

637

= 6.37

4.84

= 48.4

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 1 – Tricky

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

24.8

= 2.48

826

= 826,000

73.9

= 0.739

24.8

= 0.248

826

= 82.6

73.9

= 739

24.8

= 2480

826

= 8.26

73.9

= 7390

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 2 – Tricky

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

$16.8 \times 10 = 168$

$637 \div 1000 = 0.637$

$4.84 \times 100 = 484$

$16.8 \div 100 = 0.168$

$637 \times 100 = 63,700$

$4.84 \times 1000 = 4840$

$16.8 \times 100 = 1680$

$637 \div 100 = 6.37$

$4.84 \times 10 = 48.4$

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 1 – Tricky **ANSWERS**

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

$24.8 \div 10 = 2.48$

$826 \times 1000 = 826,000$

$73.9 \div 100 = 0.739$

$24.8 \div 100 = 0.248$

$826 \div 10 = 82.6$

$73.9 \times 10 = 739$

$24.8 \times 100 = 2480$

$826 \div 100 = 8.26$

$73.9 \times 100 = 7390$

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 2 – Tricky **ANSWERS**

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

0.45

= 0.045

129

= 12,900

84.7

= 84,700

0.45

= 4.5

129

= 1.29

84.7

= 8470

0.45

= 450

129

= 1290

84.7

= 0.847

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 1 – Expert

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

6.28

= 6280

405

= 4.05

0.016

= 1.6

6.28

= 0.628

405

= 0.405

0.016

= 16

6.28

= 62.8

405

= 405,000

0.016

= 0.16

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 2 – Expert

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

$0.45 \div 10 = 0.045$

$129 \times 100 = 12,900$

$84.7 \times 1000 = 84,700$

$0.45 \times 10 = 4.5$

$129 \div 100 = 1.29$

$84.7 \times 100 = 8470$

$0.45 \times 1000 = 450$

$129 \times 10 = 1290$

$84.7 \div 100 = 0.847$

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 1 – Expert **ANSWERS**

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

$6.28 \times 1000 = 6280$

$405 \div 100 = 4.05$

$0.016 \times 100 = 1.6$

$6.28 \div 10 = 0.628$

$405 \div 1000 = 0.405$

$0.016 \times 1000 = 16$

$6.28 \times 10 = 62.8$

$405 \times 1000 = 405,000$

$0.016 \times 10 = 0.16$

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Multiplying and Dividing by 10, 100 and 1000 – Worksheet 2 – Expert **ANSWERS**