

Grade 5 - Multiplying and Dividing Decimals - Answer Key

Common Core 5.NBT.B.7 · maths-pdf.fr/en/

This answer key gives a full worked solution for each of the 20 decimal problems. Each solution shows the whole-number step, the decimal-point step, and the final answer in bold. Compare the steps with your own work to find where a mistake started.

Grade 5 · Common Core State Standards: **5.NBT.B.7**

Exercise 1 - Tenths times a whole number

Ignore the decimal points and multiply: $7 \times 6 = 42$.

The factors have 1 and 0 decimal places, so the product has $1 + 0 = 1$ decimal place: 4.2.

4.2

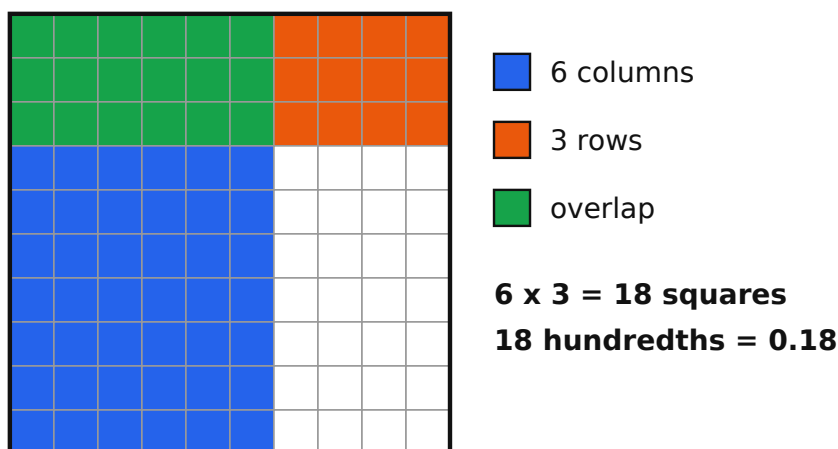
Exercise 2 - Hundredths times a whole number

Ignore the decimal points and multiply: $6 \times 7 = 42$.

The factors have 2 and 0 decimal places, so the product has $2 + 0 = 2$ decimal places: 0.42.

0.42

Exercise 3 - Product from a model



The overlap holds 18 squares, so the product is 0.18.

6 columns shaded blue show 0.6. 3 rows shaded orange show 0.3.

The overlap is $6 \times 3 = 18$ squares, and each square is 0.01.

$$0.6 \times 0.3 = 0.18$$

Exercise 4 - Decimal times tenths

Ignore the decimal points and multiply: $42 \times 5 = 210$.

The factors have 1 and 1 decimal places, so the product has $1 + 1 = 2$ decimal places: 2.10.

Dropping the extra zero gives 2.1.

2.1

Exercise 5 - Two decimal factors

Ignore the decimal points and multiply: $36 \times 24 = 864$.

The factors have 1 and 1 decimal places, so the product has $1 + 1 = 2$ decimal places: 8.64.

8.64

Exercise 6 - Hundredths and tenths

Ignore the decimal points and multiply: $25 \times 4 = 100$.

The factors have 2 and 1 decimal places, so the product has $2 + 1 = 3$ decimal places: 0.100.

Dropping the extra zero gives 0.1.

0.1

Exercise 7 - Zeros in the product

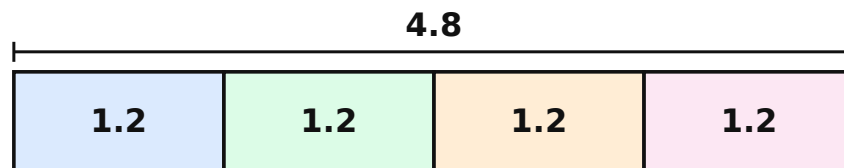
Ignore the decimal points and multiply: $5 \times 2 = 10$.

The factors have 2 and 1 decimal places, so the product has $2 + 1 = 3$ decimal places: 0.010.

Dropping the extra zero gives 0.01.

0.01

Exercise 8 - Divide tenths by a whole number



Each part is 1.2.

Divide as with whole numbers: $48 \div 4 = 12$.

Put the decimal point so the quotient has 1 decimal place: 1.2.

1.2

Exercise 9 - Divide hundredths by a whole number

Divide as with whole numbers: $756 \div 6 = 126$.

Put the decimal point so the quotient has 2 decimal places: 1.26.

1.26

Exercise 10 - Quotient less than 1

Divide as with whole numbers: $72 \div 9 = 8$.

Put the decimal point so the quotient has 2 decimal places: 0.08.

Exercise 11 - Keep dividing with zeros

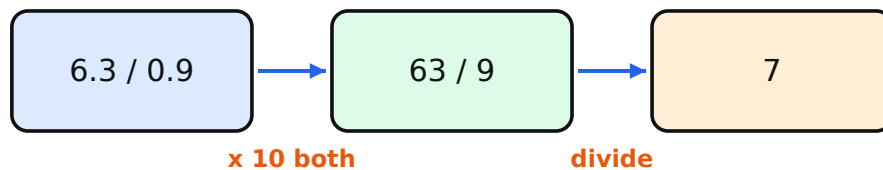
Write 9.3 as 9.30 so the division can end.

Divide as with whole numbers: $930 \div 5 = 186$.

Put the decimal point so the quotient has 2 decimal places: 1.86.

1.86

Exercise 12 - Divide by tenths



Both numbers are multiplied by 10.

Multiply both numbers by 10 so the divisor is a whole number: $6.3 \times 10 = 63$ and $0.9 \times 10 = 9$.

Now divide: $63 \div 9 = 7$.

7

Exercise 13 - Divide by hundredths

Multiply both numbers by 100 so the divisor is a whole number: $1.44 \times 100 = 144$ and $0.12 \times 100 = 12$.

Now divide: $144 \div 12 = 12$.

12

Exercise 14 - Decimal divided by decimal

Multiply both numbers by 10 so the divisor is a whole number: $0.72 \times 10 = 7.2$ and $0.4 \times 10 = 4$.

Now divide: $7.2 \div 4 = 1.8$.

Exercise 15 - Apples at the market

Multiply the weight by the price per pound: 3.5×1.8 .

Ignore the decimal points and multiply: $35 \times 18 = 630$.

The factors have 1 and 1 decimal places, so the product has $1 + 1 = 2$ decimal places: 6.30.

Dropping the extra zero gives 6.3.

The product 6.3 means \$6.30.

The apples cost \$6.30.

Exercise 16 - Ribbon for bows

Ribbon used: 0.65×12 .

$65 \times 12 = 780$, and 2 decimal places gives $7.80 = 7.8$.

Ribbon left: $10 - 7.8 = 2.2$.

2.2 yards are left.

Exercise 17 - Unit price

Divide the total cost by the number of pounds: $14.40 \div 1.8$.

Multiply both numbers by 10 so the divisor is a whole number: $14.40 \times 10 = 144$ and $1.8 \times 10 = 18$.

Now divide: $144 \div 18 = 8$.

Trail mix costs \$8 per pound, or \$8.00.

Exercise 18 - Movie tickets

Total cost: 8.75×4 .

$875 \times 4 = 3,500$, and 2 decimal places gives 35.00.

She pays \$40. Change: $40 - 35 = 5$.

Priya gets \$5.00 in change.

Exercise 19 - Trail markers

Divide the trail length by the length of one section: $5.4 \div 0.45$.

Multiply both numbers by 100 so the divisor is a whole number: $5.4 \times 100 = 540$ and $0.45 \times 100 = 45$.

Now divide: $540 \div 45 = 12$.

The trail has 12 equal sections.

Exercise 20 - Garden soil

Area: 3.6×2.5 .

$36 \times 25 = 900$, and 2 decimal places gives $9.00 = 9$ square feet.

Cost: 9×0.75 .

$9 \times 75 = 675$, and 2 decimal places gives 6.75.

The area is 9 square feet and the soil costs \$6.75.