

Luna's Space Adventure

Name _____

Grade 5 • Multiplying by 0.1 and 0.01 • MA.5.NSO.2.5

Date _____



Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

Same as Circle the operation that gives the same answer.

$\div 0.01$ is
the
same as

$\div 10$

$\times 100$

$\times 10$

$\div 100$

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the
same as

$\div 10$

$\div 100$

$\times 100$

$\times 10$

$\times 0.1$ is
the
same as

$\div 10$

$\times 10$

$\div 100$

$\times 100$

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the
same as

$\times 100$

$\times 10$

$\div 100$

$\div 10$

Multiply Each place moves right: the number gets smaller.

$752 \times 0.01 = \boxed{}$

$98.1 \times 0.01 = \boxed{}$

$98 \times 0.1 = \boxed{}$

$56.7 \times 0.1 = \boxed{}$

$25.9 \times 0.01 = \boxed{}$

$26.4 \times 0.1 = \boxed{}$

$70.9 \times 0.1 = \boxed{}$

$82.5 \times 0.01 = \boxed{}$

$729 \times 0.01 = \boxed{}$

$48.9 \times 0.1 = \boxed{}$

$55 \times 0.1 = \boxed{}$

$43 \times 0.1 = \boxed{}$

Divide Each place moves left: the number gets bigger.

$5.2 \div 0.01 = \boxed{}$

$45 \div 0.1 = \boxed{}$

$0.08 \div 0.1 = \boxed{}$

$31 \div 0.01 = \boxed{}$

$61 \div 0.1 = \boxed{}$

$61 \div 0.01 = \boxed{}$

$0.41 \div 0.1 = \boxed{}$

$33 \div 0.1 = \boxed{}$

$7.1 \div 0.01 = \boxed{}$

Story time

- ① A dime is \$0.1. Dev has 69 dimes. How many dollars is that?

.....

_____ dollars



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ANSWER KEY



Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

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$\times 100$

$\times 10$

$\times 0.1$ is
the same as

$\div 10$

$\times 10$

$\div 100$

$\times 100$

$\div 0.1$ is
the same as

$\times 100$

$\times 10$

$\div 100$

$\div 10$

Multiply Each place moves right: the number gets smaller.

$$752 \times 0.01 = 7.52$$

$$98.1 \times 0.01 = 0.981$$

$$98 \times 0.1 = 9.8$$

$$56.7 \times 0.1 = 5.67$$

$$25.9 \times 0.01 = 0.259$$

$$26.4 \times 0.1 = 2.64$$

$$70.9 \times 0.1 = 7.09$$

$$82.5 \times 0.01 = 0.825$$

$$729 \times 0.01 = 7.29$$

$$48.9 \times 0.1 = 4.89$$

$$55 \times 0.1 = 5.5$$

$$43 \times 0.1 = 4.3$$

Divide Each place moves left: the number gets bigger.

$$5.2 \div 0.01 = 520$$

$$45 \div 0.1 = 450$$

$$0.08 \div 0.1 = 0.8$$

$$31 \div 0.01 = 3100$$

$$61 \div 0.1 = 610$$

$$61 \div 0.01 = 6100$$

$$0.41 \div 0.1 = 4.1$$

$$33 \div 0.1 = 330$$

$$7.1 \div 0.01 = 710$$

Story time

- ① A dime is \$0.1. Dev has 69 dimes. How many dollars is that?

$$69 \times 0.1 = 6.9$$

6.9 dollars



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GUIDE

1 What this sheet practises

Multiplying and dividing whole numbers and decimals by 0.1 and 0.01.

2 A problem from the sheet, worked out

Multiply Each place moves right: the number gets smaller.

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$$729 \times 0.01 = 7.29$$

How: Multiplying by 0.1 is dividing by 10: each digit moves one place right. Dividing by 0.1 is multiplying by 10: each digit moves one place left. 0.01 moves two places.

3 Words to know

tenth 0.1, one of ten equal parts

hundredth 0.01, one of a hundred equal parts

place value what a digit is worth where it sits

decimal point the dot between wholes and parts

4 Watch for

- Thinking $\times 0.1$ makes a number bigger.
- Moving the point the wrong way for $\div 0.01$.
- Dropping a needed zero: $3 \times 0.01 = 0.03$, not 0.3.

5 Where it fits

BEFORE

5.NBT.A.2

Explain the patterns in zeros and decimal points when multiplying or dividing by powers of 10.

THIS SHEET

MA.5.NSO.2.5

Multiply and divide decimals by 0.1 and 0.01.

NEXT

5.NBT.B.7

Add, subtract, multiply and divide decimals to hundredths.

6 Helping at home

Talk about dimes and pennies: 0.1 of a dollar and 0.01 of a dollar. What is 0.1 of \$25? Of \$2.50?

