Multiplication and Division with Decimals

Name _____

Explore and Grow

Use the relationship between positions in a place value chart to find each product.

Ones	.	Tenths	Hundredths
5	.		

5×1
5×0.1
5×0.01

What pattern do you notice?

Use the relationship between positions in a place value chart to find each quotient.

Hundreds	Tens	Ones	.
		5	.

$5 \div 1$
$5 \div 0.1$
$5 \div 0.01$

What pattern do you notice?

Example   Find 8×0.01.

Ones	.	Tenths	Hundredths
8	.		
0	.	8	
0	.	0	8

$\times 0.1$
$\times 0.1$

So, $8 \times 0.01 =$ _____.

Example   Find $8 \div 0.01$.

Hundreds	Tens	Ones	.	Tenths
		8	.	
	8	0	.	
8	0	0	.	

$\div 0.1$
$\div 0.1$

So, $8 \div 0.01 =$ _____.

Show and Grow

Find the product or quotient.

1. $3 \times 0.1 =$ _____

2. $7 \div 0.1 =$ _____

Practice

Name _____

Find the product or quotient.

3. $4 \div 0.01 =$ _____

_____

4. $2 \times 0.01 =$ _____

5. $9 \times 0.1 =$ _____

6. $6 \div 0.1 =$ _____

7. $9 \div 0.01 =$ _____

8. $3 \div 0.01 =$ _____

9. $1 \times 0.01 =$ _____

10. $1 \div 0.1 =$ _____

11. Structure Describe the location of the decimal point when multiplying a number by 0.1 and by 0.01.

12. Structure Describe the location of the decimal point when dividing a number by 0.1 and by 0.01.

13. Modeling Real Life The height of your dog in a photo is 0.01 times the actual height of your dog. The height of your dog in the photo is 0.2 foot. What is the actual height of your dog?

_____ feet

14. Modeling Real Life You ride your bike 9 miles. You then walk one tenth of the number of miles you rode your bike. How many miles did you bike and walk altogether?

_____ miles

15. **DIG DEEPER!** What is Newton's number?

One hundredth times my number is 2.