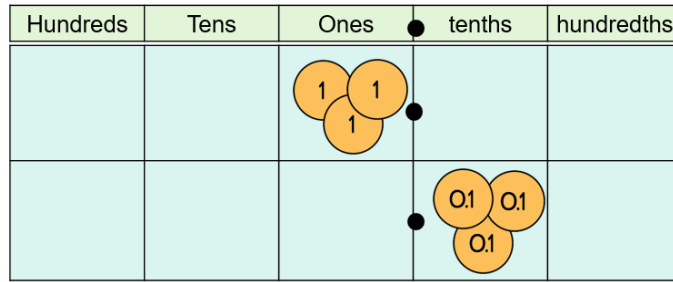


WORKED EXAMPLE

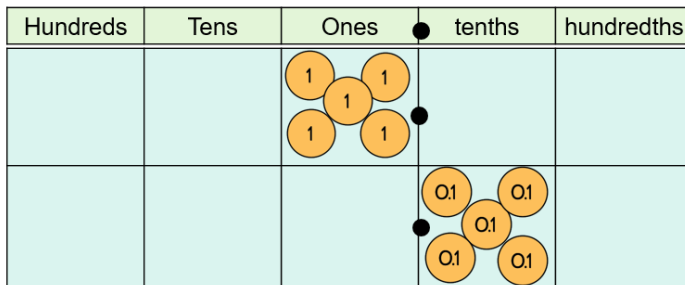


I have noticed that *3 ones counters in the ones column and 3 tenths counters in the tenths column.*
 I know that *each place value column gets ten times greater as you move left.*
 I know that *there are 10 tenths in each whole one so there are 30 tenths in 3 ones.*
 I know that *3 ones ÷ 10 = 3 tenths. 3 tenths is 0.3 as a decimal or $\frac{3}{10}$ as a fraction.*
 I know that *3 is 10 times greater than 0.3 because 0.3 x 10 = 3.*

multiply divide value column decimal fraction placeholder

REHEARSE

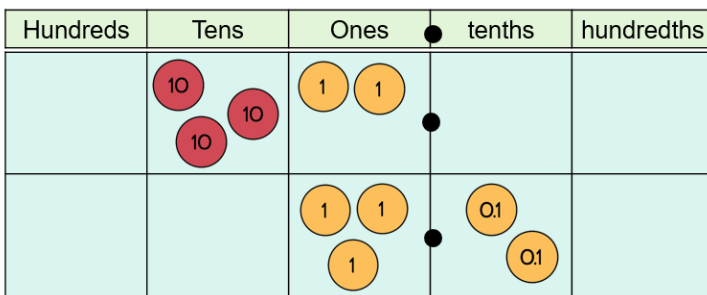
Describe the relationships between the counters.



There are ____ ones and ____ tenths.

____ ones ÷ 10 = _____.

This is _____ as a decimal or ____ as a fraction.



The value shown on the top row is _____

The value shown on the bottom row is _____

_____ ÷ 10 = _____ _____ x 10 = _____

Multiplication and division by 10 and 100

Hundreds	Tens	Ones	tenths	hundredths
	10 10	1	0.1 0.1	
		1 1	0.1	0.01 0.01

The value shown on the top row is _____

The value shown on the bottom row is _____

_____ \div 10 = _____ _____ \times 10 = _____

Draw the counters to show this number divided by 10.

Hundreds	Tens	Ones	tenths	hundredths
100	10 10		0.1 0.1	

The value shown on the top row is _____

The value shown on the bottom row is _____

_____ \div 10 = _____ _____ \times 10 = _____

Draw the counters to show this number divided by 100.

Hundreds	Tens	Ones	tenths	hundredths
100	10 10	1 1		

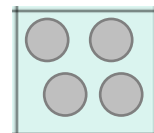
The value shown on the top row is _____

The value shown on the bottom row is _____

_____ \div 10 = _____ _____ \times 10 = _____

APPLY AND EXPLORE

Kelsey started with **4 counters** in a **column** of the place value grid: She multiplied or divided her number by 10 or by 100. What could her numbers have been?



Write as many possible calculations as you can. One is done for you:
 $4 \div 10 = 0.4$

APPLY AND EXPLORE

Think about everyday life. When is it useful to multiply and divide by 10 or 100?