

Dividing Decimal Models

Model #1

Complete the pattern.

$$156 \div 1 = 156$$

$$156 \div 10 = 15.6$$

$$156 \div 100 = 1.56$$

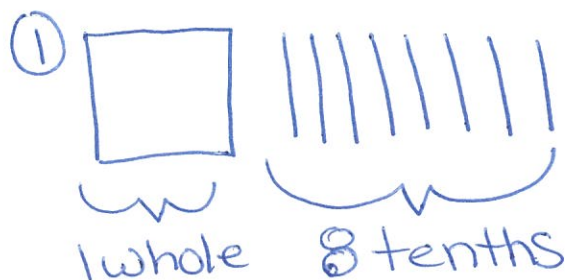
$$156 \div 1000 = 0.156$$

* Move the decimal to the left based on the # of zeros in the divisor

Model #2

Use base-ten blocks.

$$1.8 \div 3$$



② Divide the tenths into groups of 3's



③ Break up the whole so you can continue dividing by 3. Bring down the 2 left over tenths.



④ How many groups of 3 do you have?

$$1.8 \div 3 = 0.6$$

How to Divide with Decimals

Decimal \div Whole Number

Step 1: Set up the problem

$$\begin{array}{r} 5.68 \div 4 \\ \uparrow \quad \uparrow \\ \text{Dividend} \quad \text{Divisor} \end{array} \qquad 4 \overline{)5.68}$$

Step 2: Move the decimal up on the line

$$4 \overline{)5\uparrow.68}$$

Step 3: Complete the division

$$\begin{array}{r} 1.42 \\ 4 \overline{)5.68} \\ \underline{-4} \quad \downarrow \\ 16 \\ \underline{-16} \quad \downarrow \\ 08 \end{array}$$

Decimal \div Decimal

Step 1: Set up the problem

$$0.84 \div 0.14 \quad 0.14 \overline{)0.84}$$

Step 2: Move the decimal in the divisor to the right to make it a whole #.

$$0.14 \overline{)0.84}$$

Step 3: Move the decimal in the dividend the same # of times.

$$14 \overline{)0.84}$$

Step 4: Complete the division

$$\begin{array}{r} 6 \\ 14 \overline{)84} \\ \underline{-84} \\ 0 \end{array}$$