

Name: _____

Period: _____

Date: _____

Math Unit 2: Fractions and Decimals**Lesson 2.2- Dividing Fractions****SWBAT:****Paraphrase:****Essential Question:** How can you divide by a fraction?

Example 1

$$\frac{8}{15} \div \frac{2}{3}$$

Just like multiplication, you can divide across.

$$\frac{8}{15} \div \frac{2}{3} = \frac{8 \div 2}{15 \div 3} = \frac{4}{5}$$

Make sure your final quotient is in simplest form.

Your Turn

$$\frac{10}{21} \div \frac{5}{7}$$

$$\frac{9}{11} \div \frac{3}{11}$$

$$\frac{5}{6} \div \frac{1}{2}$$

Example 2

What if we cannot divide evenly?

$$\frac{1}{6} \div \frac{2}{3}$$

Step 1

Find a common denominator.


$$\frac{1}{6} \rightarrow \frac{1}{6} \quad \frac{2}{3} \times \frac{2}{2} \rightarrow \frac{4}{6}$$

$$\frac{1}{6} \div \frac{2}{3} = \frac{1}{6} \div \frac{4}{6}$$

Step 2

Now we can divide across. Since the denominators will have a quotient of 1, and anything divided by 1 is equal to itself, we only need to divide the numerators.

$$\frac{1}{6} \div \frac{4}{6} = \frac{1 \div 4}{6 \div 6} = \frac{1 \div 4}{1} = \frac{1}{4}$$

Your Turn	$\frac{2}{7} \div \frac{1}{3}$ $\frac{1}{2} \div \frac{1}{8}$ $\frac{2}{3} \div 6$
Example 3	<p>A piece of wood is 3 feet long. How many $\frac{3}{4}$-foot pieces can you cut from the piece of wood?</p>
Step 1	<p>Draw a model. You have a 3-foot piece of wood that will be cut into equal parts, each $\frac{3}{4}$-feet long. This is a division problem.</p> 
Step 2	<p>Divide.</p> $3 \div \frac{3}{4} = \frac{3}{1} \div \frac{3}{4} = \frac{12}{4} \div \frac{3}{4} = \frac{12}{3} = 4$ <p>You can cut four $\frac{3}{4}$-foot pieces of wood from a 3-foot board</p>
Your Turn	<p>How many $\frac{1}{2}$-foot pieces can you cut from a 7-foot piece of wood?</p>
Notes / Questions	