Unit 5, Lesson 23

Divide Whole Numbers by Decimals

Let's divide whole numbers by decimals.

Warm-up

True or False: Tenths and Hundredths

Decide if each statement is true or false. Be prepared to explain your reasoning.

- $6 \div 0.01 = 60$

- $6 \div 0.1 < 6 \div 0.01$

- $6 \div 0.01 = 60 \div 0.1$

Activity 1

Same Divisor, Different Dividend

1. Find the value of each expression. Explain or show your reasoning.
   a. $1 \div 0.2$

   b. $2 \div 0.2$

   c. $3 \div 0.2$

   d. $4 \div 0.2$

2. Find the value of each expression. Explain or show your reasoning.
   a. $1 \div 0.02$

   b. $2 \div 0.02$

   c. $3 \div 0.02$

   d. $4 \div 0.02$

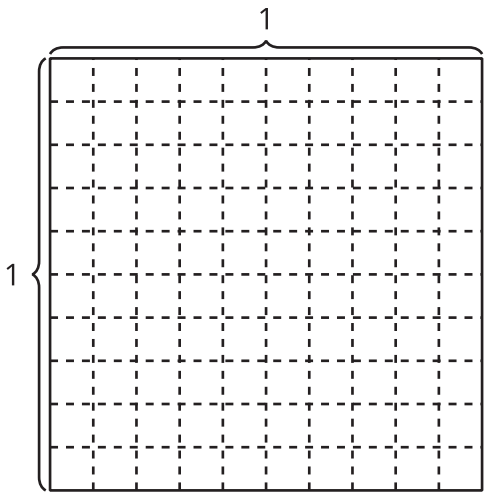
3. What patterns do you notice?

Activity 2

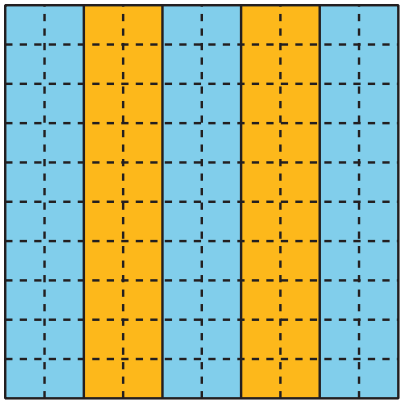
Strategies with Larger Dividends

1. Find the value of the expression. Explain or show your reasoning. Use a diagram if it is helpful.

$12 \div 0.2$



2. Tyler uses this diagram and explanation to justify why $12 \div 0.2 = 60$.



$12 \div 0.2 = 60$

There are 5 groups of 0.2 in 1 and there are 12 so that is 12 groups of 5.

Explain how the expression $12 \times (1 \div 0.2)$ relates to Tyler's reasoning.

3. Find the value of each expression.

   a. $14 \div 0.5$

   b. $5 \div 0.25$