



# Divide Decimals by Decimals

Let's divide decimals by decimals.

## Warm-up

### Number Talk: Same/Different

Find the value of each expression mentally.

- $20 \div 2$

- $2 \div 0.2$

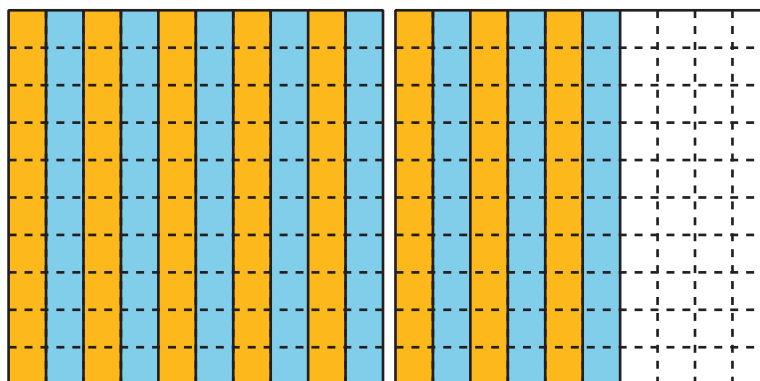
- $50 \div 2$

- $5 \div 0.2$



## Dividing by a Tenth and a Hundredth

1. Jada draws this diagram to find the value of  $1.6 \div 0.1$ .



- a. Describe how the diagram shows 1.6.

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- b. Describe how the diagram shows 16 groups of 1 tenth.

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- c. Describe how the diagram shows the value of  $1.6 \div 0.1$ .

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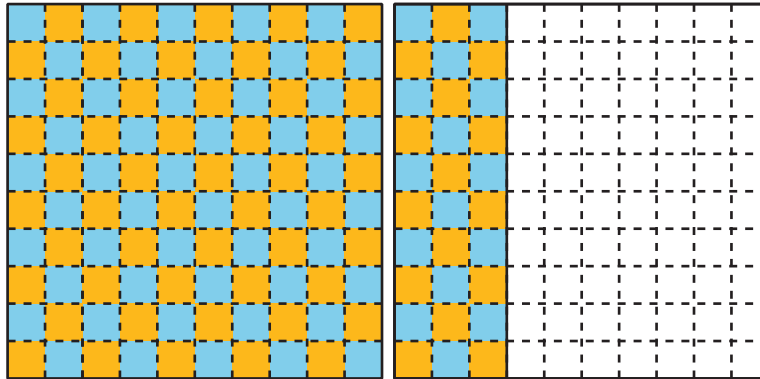
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- d. Describe how the diagram also represents the expression  $160 \div 10$ .

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2. a. Describe how this diagram represents  $1.3 \div 0.01$ .



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- b. What is the value of  $1.3 \div 0.01$ ? Explain or show your reasoning.

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## Activity 2

### Divide Decimals by Decimals

Find the value of each expression. Explain or show your reasoning.

1.  $5 \div 0.1$

2.  $5 \div 0.01$

3.  $0.5 \div 0.1$

4.  $0.5 \div 0.01$

5.  $0.02 \div 0.01$

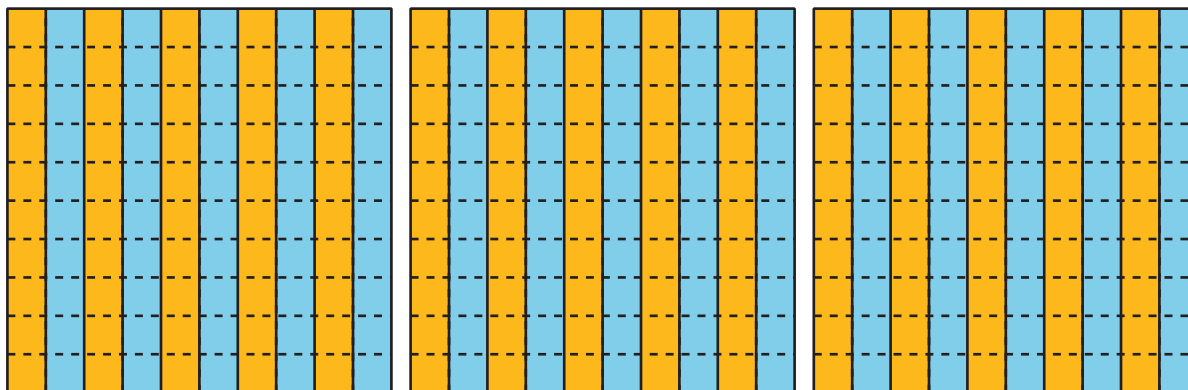
6.  $1.53 \div 0.01$



## Section D Summary

We learned different strategies for dividing with decimals.

We used diagrams. This diagram shows there are 10 groups of 0.1 in each whole. So, there are  $3 \times 10$  or 30 groups of 0.1 in 3 wholes.



We thought about place value. Since 3 is 30 tenths and 0.1 is 1 tenth,  $3 \div 0.1$  is equivalent to  $30 \div 1$ . Both have the value 30.

We also used the relationship between multiplication and division. We know that  $10 \times 0.1 = 1$ . So,  $3 \div 0.1 = 30$ .