



# Represent Situations with Multiplication and Division

Let's represent problems with multiplication and division equations.

## Warm-up

### Number Talk: Three and a Tenth

Find the value of each expression mentally.

- $3 \times \frac{1}{10}$

- $\frac{1}{10} \times 3$

- $\frac{1}{10} \div 3$

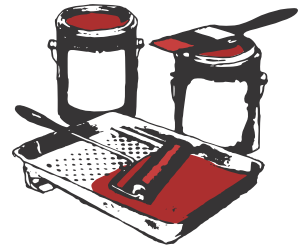
- $3 \div \frac{1}{10}$



Activity 1

## Putting it All Together: Multiplication and Division

1. Diego and some classmates paint one wall of a long hallway. They have 2 gallons of paint to share equally in paint trays. Each paint tray holds  $\frac{1}{4}$  gallon of paint. How many paint trays can they fill with the 2 gallons of paint?



- Draw a diagram to represent the situation.
- Write a division equation to represent the situation.
- Write a multiplication equation to represent the situation.

2. Diego and Clare decide to equally share  $\frac{1}{4}$  gallon of a special paint that glows in the dark. How many gallons of paint does each person get?
- a. Draw a diagram to represent the situation.

b. Write a division equation to represent the situation.

c. Write a multiplication equation to represent the situation.



## Activity 2

### Multiplication or Division?

For your set of problems:

- Write a multiplication or division expression for each situation.
- Answer the question. Write an equation. Make sure to include appropriate units. Use a diagram if it helps.
- Trade papers with your partner. Check your partner's equations. If you disagree, work to reach an agreement.

Partner A:

1. The distance from Han's house to Priya's house is  $\frac{4}{5}$  kilometer. Han walked  $\frac{3}{4}$  of the way. How many kilometers did he walk?
2. Clare's science class tests water samples in class. There is a total of  $\frac{1}{2}$  gallon of water and 10 groups. How much water does each group get if they split the water equally?
3. A container with 3 kilograms of strawberries is  $\frac{1}{5}$  full. How many kilograms can the container hold?



Partner B:

1. It takes Han 4 minutes to walk  $\frac{1}{3}$  kilometer. How many minutes will it take him to walk 1 kilometer?
2. Clare's goal is to collect 4 kilograms of soil sample for her science project. She collected  $2\frac{2}{3}$  times her goal. How many kilograms of soil did Clare collect?
3. A container that holds a  $\frac{1}{2}$  pound of strawberries is  $\frac{3}{5}$  full. How many pounds of strawberries are in the container?

