# Guided Practice

**Divide. Write in simplest form. Check by multiplying.** (Examples 1 and 3)

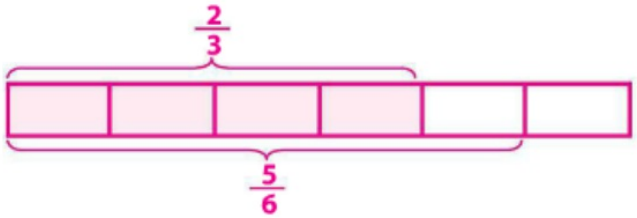
**1.** $\frac{1}{4} \div \frac{1}{2} =$ **$\frac{1}{2}$**

**2.** $\frac{5}{6} \div \frac{2}{3} =$ **$\frac{5}{4}$ or $1\frac{1}{4}$**

**3.** $\frac{1}{8} \div 3 =$ **$\frac{1}{24}$**

**4.** Write a story context for $\frac{2}{3} \div \frac{5}{6}$. Use a model to solve. (Example 2)

**Sample answer: Mariah drank $\frac{2}{3}$-cup of orange juice. A serving size is $\frac{5}{6}$ cup. What part of a serving did she drink? $\frac{4}{5}$ serving**




**5.** A neighborhood garden that is $\frac{2}{3}$ of an acre is to be divided into 4 equal-size sections. Write and solve an equation to find the size of each section. (Example 4)

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

## Rate Yourself!

How confident are you about dividing fractions? Shade the on the target.

**5.** A neighborhood garden that is $\frac{2}{3}$ of an acre is to be divided into 4 equal-size sections. Write and solve an equation to find the size of each section. (Example 4)

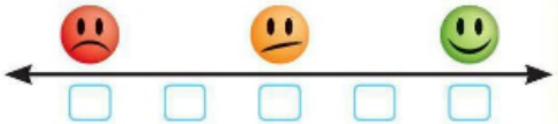
$\frac{2}{3} \div 4 = \frac{1}{6}$; $\frac{1}{6}$ acre

**6.** **Building on the Essential Question** How is the process used to divide fractions similar to the process used to multiply fractions?

**Sample answer: To divide fractions, multiply by the reciprocal of the divisor.**

## Rate Yourself!

How confident are you about dividing fractions? Shade the ring on the target.



For more help, go online to access a Personal Tutor.

Tutor

FOLDABLES Time to update your Foldable!

# Independent Practice

Go online for Step-by-Step Solutions

**Divide. Write in simplest form. Check by multiplying.** (Examples 1 and 3)

**1.** $\frac{1}{8} \div \frac{1}{2} =$ $\frac{1}{4}$

Show your work.

**2.** $\frac{3}{4} \div \frac{2}{3} =$ $\frac{9}{8}$ or $1\frac{1}{8}$

**3** $\frac{3}{4} \div 9 =$ $\frac{1}{12}$

**4.** $\frac{1}{6} \div \frac{4}{7} =$ $\frac{7}{24}$

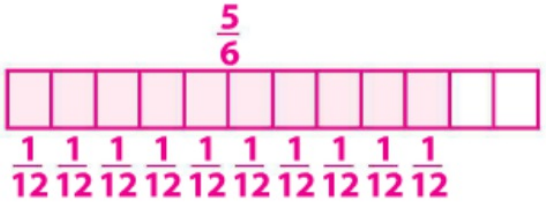
**5.** $\frac{1}{3} \div 8 =$ $\frac{1}{24}$

**6.** $\frac{1}{3} \div \frac{5}{6} =$ $\frac{2}{5}$

**7.** Write a story context for $\frac{5}{6} \div \frac{1}{12}$. Use a model to solve. (Example 2)

**Sample answer: David has $\frac{5}{6}$ foot of tape. He uses $\frac{1}{12}$ foot of tape to hang each photo on the bulletin board. How many photos can he hang on the bulletin board?**

**10 photos**




**Write and solve an equation.** (Example 4)

**8.** A piece of licorice is to be cut into 10 equal-size pieces. If the length of the piece of licorice is $\frac{2}{3}$ yard, how long will each piece of licorice be?

**$\frac{2}{3} \div 10 = \frac{1}{15}$; $\frac{1}{15}$ yd**

| Amount of Dye | |
|---|---|
| **Color** | **Number of Cups** |
| red | 12 |
| orange | $\frac{3}{4}$ |

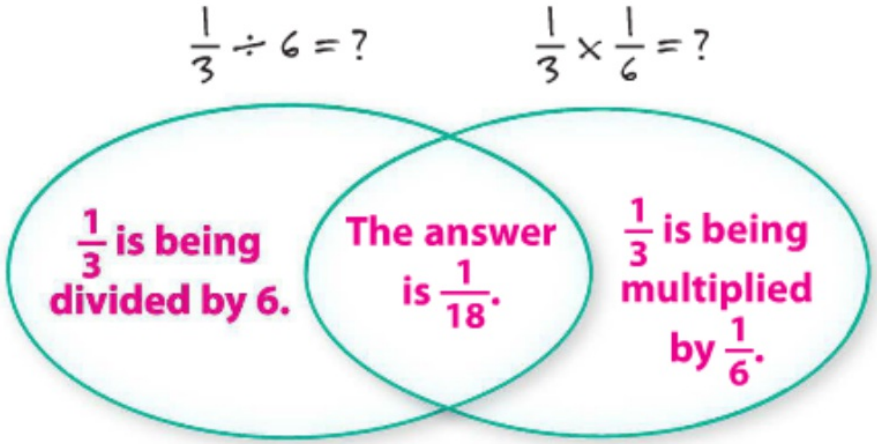
**9** CCSS **Use Math Tools** To tie-dye one T-shirt, $\frac{3}{8}$ cup of dye is needed. The table shows the number of cups of each color of dye in Mr. Galvez's art class. How many T-shirts can be made using only orange dye?

**$\frac{3}{4} \div \frac{3}{8} = 2$; 2 T-shirts**

**10.** CCSS **Reason Abstractly** Carlota has $\frac{3}{4}$ ton of mulch she is going to divide evenly among 5 flower beds. How much mulch will each flower bed contain?

**$\frac{3}{4} \div 5 = \frac{3}{20}$; $\frac{3}{20}$ T**

11. **Reason Abstractly** Complete the Venn diagram to compare and contrast the division and multiplication problems.




## H.O.T. Problems Higher Order Thinking

12. **Identify Structure** Find two positive fractions with a quotient of $\frac{5}{6}$. Give the equivalent multiplication sentence.

**Sample answer:** $\frac{1}{2} \div \frac{3}{5}; \frac{1}{2} \times \frac{5}{3}$

13. **Identify Repeated Reasoning** Is the quotient $\frac{2}{3} \div \frac{1}{2}$ greater than or less than 1? Is the quotient of $\frac{1}{2} \div \frac{2}{3}$ greater than or less than 1? Explain your reasoning. **greater than 1; the dividend is greater than the divisor; less than 1; the dividend is less than the divisor**

**14.** **Persevere with Problems** Complete the steps to demonstrate why you multiply by the reciprocal when dividing fractions. Find $\frac{1}{4} \div \frac{3}{8}$.

**Step 1** Rewrite it as $\frac{\frac{1}{4}}{\frac{3}{8}}$.

**Step 2** Multiply the numerator and the denominator by the reciprocal of $\frac{3}{8}$. $\frac{\frac{1}{4}}{\frac{3}{8}} = \frac{\frac{1}{4} \times \frac{8}{3}}{\frac{3}{8} \times \frac{8}{3}}$

**Step 3** Simplify the denominator. $\frac{\frac{1}{4} \times \frac{8}{3}}{1}$

**Step 4** Simplify the fraction. $\frac{1}{4} \times \frac{8}{3}$

**15.** **Reason Inductively** In cooking, 1 drop is equal to $\frac{1}{6}$ of a dash. If a recipe calls for $\frac{2}{3}$ of a dash, write an expression that would give the number of drops that are needed.

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