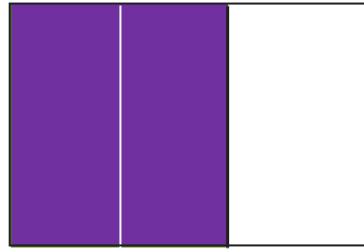


Equivalent fractions have the same value.

- ▶ To find **equivalent fractions**, **multiply** or **divide** the **numerator** and **denominator** by the same **whole number**.
 - ▶ **Multiply** if the **second given number is larger**.

$$\frac{1}{2} = \frac{2}{4}$$

The diagram shows the fraction $\frac{1}{2}$ on the left and $\frac{2}{4}$ on the right, with an equals sign between them. A blue arrow points from the numerator 1 to the numerator 2, with a red $\times 2$ next to it. Another blue arrow points from the denominator 2 to the denominator 4, also with a red $\times 2$ next to it.



CFU

To generate an equivalent fraction below, you must

$$\frac{3}{4} = \frac{?}{16}$$

A multiply

B divide

To generate an equivalent fraction, below, you must multiply by

$$\frac{3}{4} = \frac{?}{16}$$

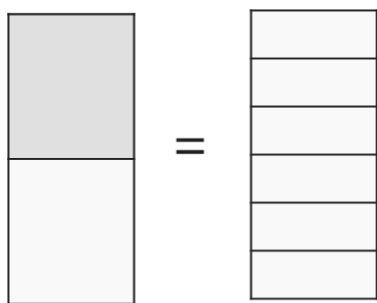
A 4

B 8

- 1 Look at both fractions.
- 2 Determine the number to multiply that results in the 2nd given number.
- 3 Use the same number to multiply the other numerator or denominator.
- 4 Use a visual to explain why the fractions are equivalent. (color)

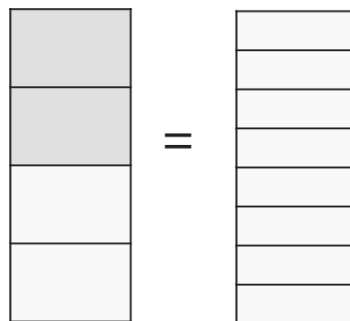
1.

$$\frac{1}{2} = \frac{\quad}{6}$$



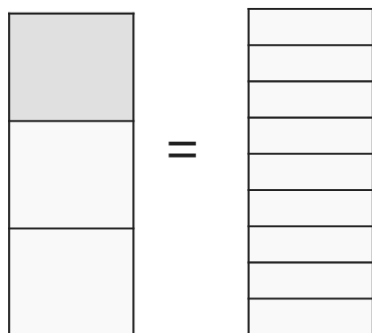
2.

$$\frac{2}{4} = \frac{\quad}{8}$$



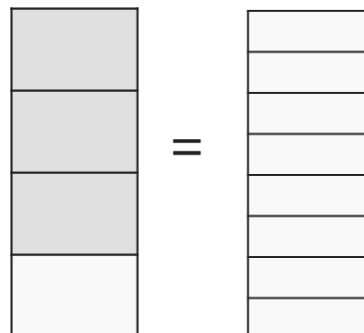
3.

$$\frac{1}{3} = \frac{\quad}{6}$$



4.

$$\frac{3}{4} = \frac{\quad}{6}$$

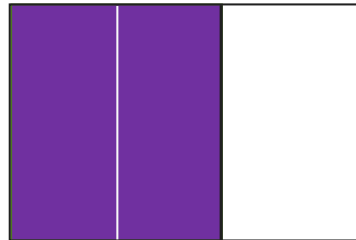


Equivalent fractions have the same value.

- ▶ To find **equivalent fractions**, **multiply** or **divide** the **numerator** and **denominator** by the same **whole number**.
 - ▶ **Multiply** if the **second given number is larger**.
 - ▶ **Divide** if the **second given number is smaller**.

$$\frac{2}{4} = \frac{1}{2}$$

The diagram shows the fraction $\frac{2}{4}$ on the left and $\frac{1}{2}$ on the right, with an equals sign between them. A blue arrow points from the numerator 2 to the numerator 1, with a $\div 2$ above it. Another blue arrow points from the denominator 4 to the denominator 2, with a $\div 2$ below it.



CFU

To generate an equivalent fraction below, you must

$$\frac{6}{9} = \frac{?}{3}$$

A multiply

B divide

To generate an equivalent fraction, below, you must divide by

$$\frac{6}{9} = \frac{?}{3}$$

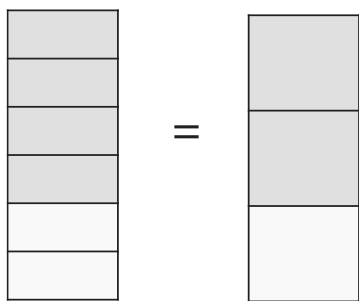
A 2

B 3

- 1 Look at both fractions.
- 2 Determine the number to divide that results in the 2nd given number.
- 3 Use the same number to divide the other numerator or denominator.
- 4 Use a visual to explain why the fractions are equivalent. (color)

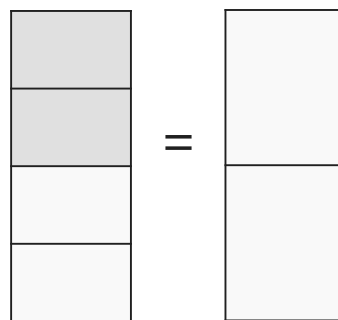
1.

$$\frac{4}{6} = \frac{\quad}{3}$$



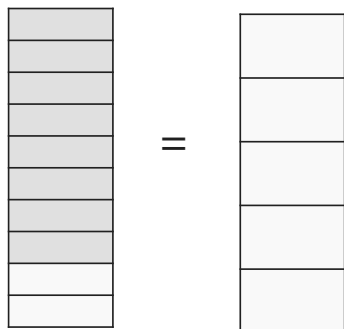
2.

$$\frac{2}{4} = \frac{\quad}{2}$$



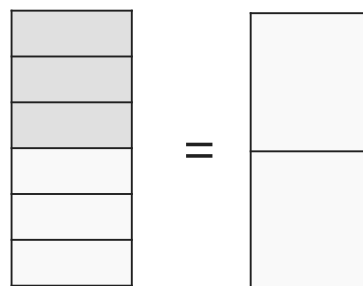
3.

$$\frac{8}{10} = \frac{4}{\quad}$$



4.

$$\frac{3}{6} = \frac{1}{\quad}$$



Skill Closure

- 1 Look at both fractions.
- 2 Multiply or divide a numbers that results in the 2nd given number.
- 3 Use the same number to multiply the other numerator or denominator.

1.

$$\frac{2}{5} = \frac{\quad}{10}$$

2.

$$\frac{12}{15} = \frac{\quad}{5}$$

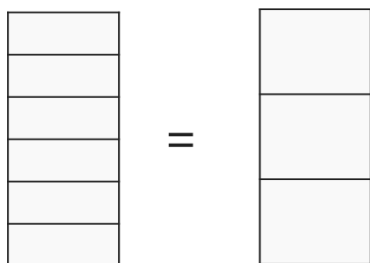
Concept Closure

Write an explanation.

Andrew thinks that these two fractions are equivalent.

Use the area to determine if he is correct.

$$\frac{2}{6} = \frac{2}{3}$$



Summary Closure

What did you learn today about creating equivalent fractions?

Word Bank

- equivalent
- fractions
- same
- value
- location
- area

- 1 Look at the denominator.
- 2 Determine the common denominator.
- 3 Apply the common denominator to the left fraction.
- 4 Generate an equivalent fraction.

$$1. \quad \frac{3}{12} = \frac{\quad}{4}$$

$$2. \quad \frac{5}{6} = \frac{\quad}{12}$$

$$3. \quad \frac{8}{18} = \frac{4}{\quad}$$

$$4. \quad \frac{1}{4} = \frac{3}{\quad}$$

$$5. \quad \frac{2}{4} = \frac{\quad}{2}$$

$$6. \quad \frac{2}{6} = \frac{\quad}{3}$$

Create equivalent fractions.

$$1. \quad \frac{4}{5} = \frac{\quad}{10}$$

$$2. \quad \frac{10}{20} = \frac{\quad}{10}$$

$$3. \quad \frac{6}{8} = \frac{3}{\quad}$$

$$4. \quad \frac{1}{10} = \frac{2}{\quad}$$

$$5. \quad \frac{8}{20} = \frac{\quad}{10}$$

$$6. \quad \frac{4}{6} = \frac{8}{\quad}$$

Which equivalent fractions are correct? Box.
Explain why the others are not correct.

$$7. \quad \frac{1}{2} \begin{array}{l} \times 4 \\ = \\ \times 4 \end{array} \frac{4}{8}$$

$$8. \quad \frac{4}{12} \begin{array}{l} \div 2 \\ = \\ \times 2 \end{array} \frac{2}{4}$$

$$9. \quad \frac{4}{8} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} \frac{1}{4}$$

$$10. \quad \frac{4}{6} \begin{array}{l} \times 4 \\ = \\ \times 4 \end{array} \frac{16}{24}$$

Create equivalent fractions.

$$1. \quad \frac{6}{10} = \frac{\quad}{40}$$

$$2. \quad \frac{4}{12} = \frac{2}{\quad}$$

$$3. \quad \frac{4}{8} = \frac{\quad}{4}$$

$$4. \quad \frac{4}{6} = \frac{16}{\quad}$$

$$5. \quad \frac{9}{12} = \frac{\quad}{4}$$

$$6. \quad \frac{5}{6} = \frac{15}{\quad}$$

Solve and interpret the equivalent fractions.

7. Clare is making fruit baskets. She wants to place four apples and six bananas in every gift basket. If she has 24 bananas, how many apples does she need to make the baskets?

$$\frac{4}{6} = \frac{\quad}{24}$$

8. A recipe calls for five cups of raisins and six cups of nuts. If Lester uses 12 cups of nuts, how many cups of raisins does he need to use in the recipe?

$$\frac{5}{6} = \frac{\quad}{12}$$

Create equivalent fractions.

$$1. \quad \frac{7}{8} = \frac{14}{\quad}$$

$$2. \quad \frac{6}{10} = \frac{\quad}{5}$$

$$3. \quad \frac{10}{20} = \frac{5}{\quad}$$

$$4. \quad \frac{3}{6} = \frac{\quad}{12}$$

$$5. \quad \frac{6}{9} = \frac{\quad}{3}$$

$$6. \quad \frac{2}{5} = \frac{\quad}{10}$$

Solve and interpret the equivalent fractions.

7. It costs \$18 to buy 16 tokens. If you only have \$9, how many tokens can you get?

$$\frac{16}{18} = \frac{\quad}{9}$$

8. The park ranger puts 10 sunfish for every 20 perch into the pond. If he only puts in 10 perch, how many sunfish would the park ranger put in?

$$\frac{10}{20} = \frac{\quad}{10}$$