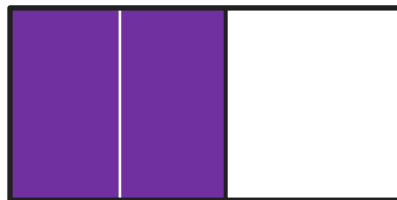**Equivalent fractions** have the same value.

► To find **equivalent fractions**, **multiply** or **divide** the **numerator** and **denominator** by the same **whole number**.

   ► **Multiply** if **the second given number is larger.**

$$\frac{1}{2} = \frac{2}{4} \quad (\times 2)$$

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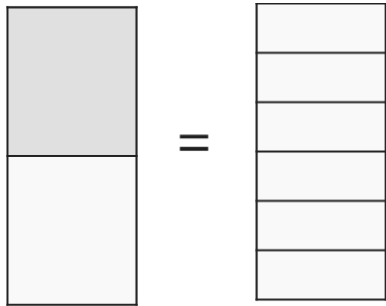
$$\frac{3}{4} = \frac{?}{16}$$

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.

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

2.

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

3.

$$\frac{1}{4} = \frac{}{8}$$

4.

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

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)

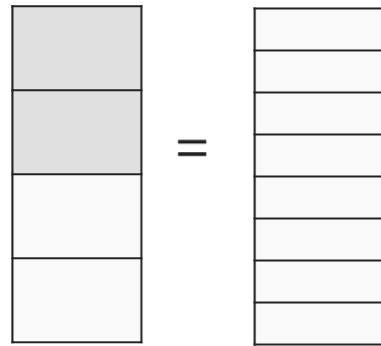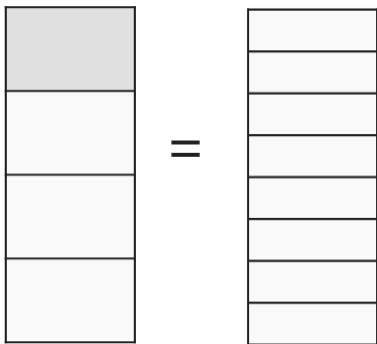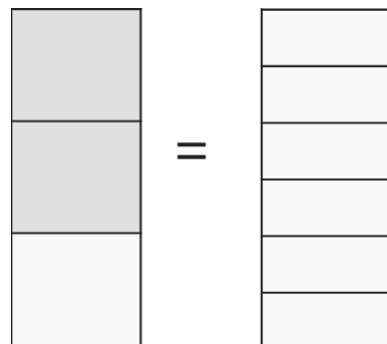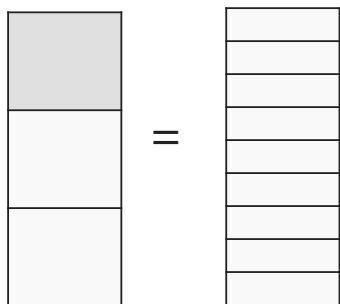**5.**

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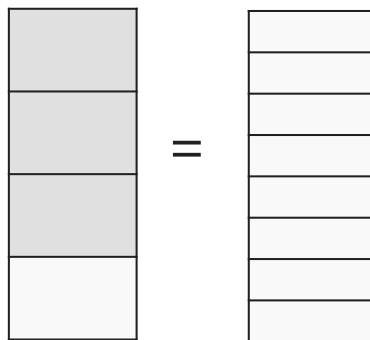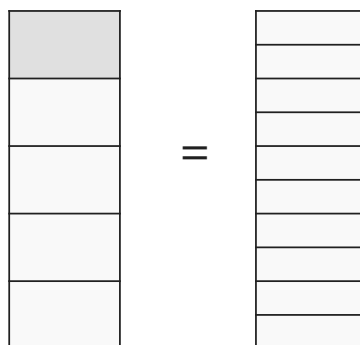
6.

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

7.

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

8.

$$\frac{1}{5} = \frac{2}{}$$

Equivalent fractions have the same value.

►   To find **equivalent fractions**, **multiply** or **divide** the **numerator** and **denominator** by the same **whole number**.

   ► **Divide** if **the second given number is smaller**.

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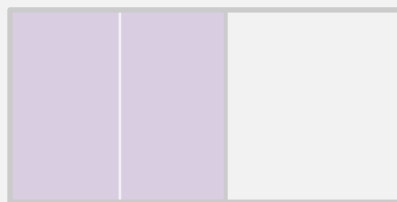
$$\frac{2 \div 2}{4 \div 2} = \frac{1}{2}$$

CFU
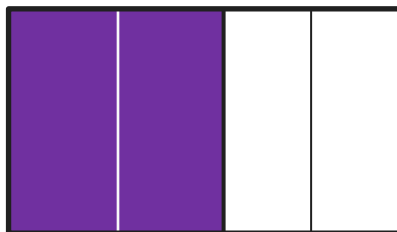
To generate an equivalent fraction below, you must

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

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 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)
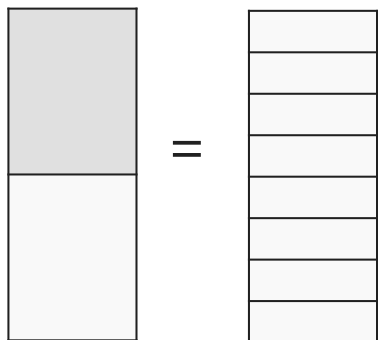
1.

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

2.

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

3.

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

4.

$$\frac{2}{10} = \frac{}{5}$$
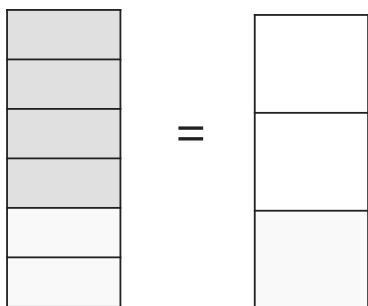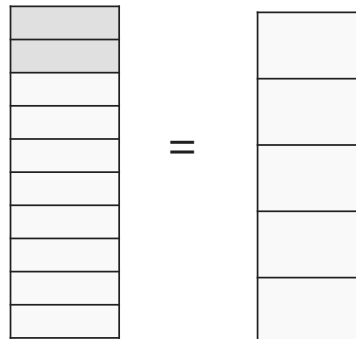
1 Look at both fractions.
2 Determine the number to multiply that results in the 2nd given number.
3 Use the same number to multiply the other numerator or denominator.
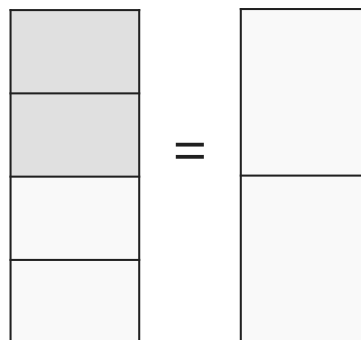4 Use a visual to explain why the fractions are equivalent. (color)
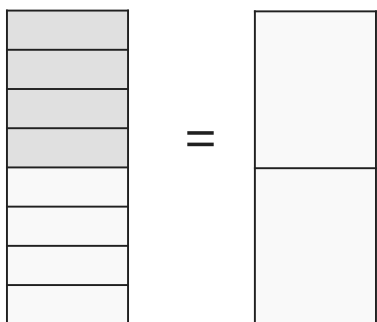
5.

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

=

6.

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

=

7.

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

=

8.

$$\frac{3}{9} = \frac{1}{}$$

=
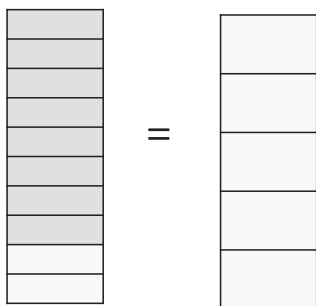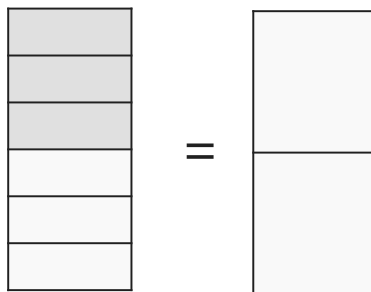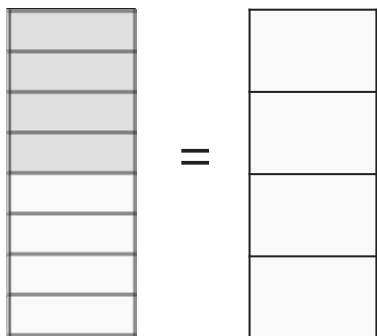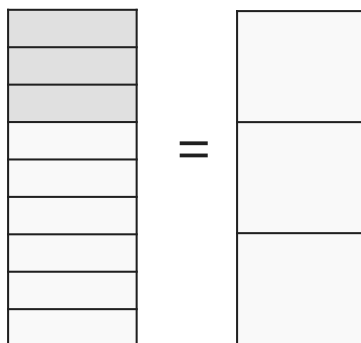
Skill Closure

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

1.

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

2.

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

Concept Closure

Write an explanation. **Andrew thinks that these two fractions are equivalent. Use the area to determine if he is correct.**

_____

_____

_____

_____

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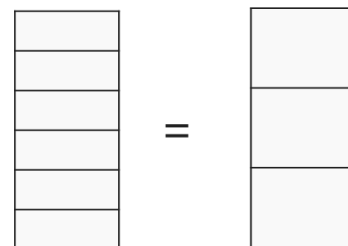
Summary Closure

What did you learn today about generating equivalent fractions?

_____

_____

_____

_____

Word Bank
equivalent
fractions
same
value
location
area

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

1. $\dfrac{3}{12} = \dfrac{}{4}$

2. $\dfrac{5}{6} = \dfrac{}{12}$

3. $\dfrac{8}{18} = \dfrac{4}{}$

4. $\dfrac{1}{4} = \dfrac{3}{}$

5. $\dfrac{2}{4} = \dfrac{}{2}$

6. $\dfrac{2}{6} = \dfrac{}{3}$

7. $\dfrac{1}{3} = \dfrac{4}{}$

8. $\dfrac{3}{7} = \dfrac{6}{}$

Find equivalent fractions.

1. $\dfrac{4}{5} = \dfrac{}{10}$

2. $\dfrac{10}{20} = \dfrac{}{10}$

3. $\dfrac{12}{18} = \dfrac{6}{}$

4. $\dfrac{1}{10} = \dfrac{2}{}$

5. $\dfrac{18}{20} = \dfrac{}{10}$

6. $\dfrac{6}{11} = \dfrac{12}{}$

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

7. $\dfrac{6}{10} \begin{array}{c} \times 4 \\ = \\ \times 4 \end{array} \dfrac{24}{40}$

8. $\dfrac{4}{12} \begin{array}{c} \div 2 \\ = \\ \times 2 \end{array} \dfrac{2}{4}$

9. $\dfrac{4}{8} \begin{array}{c} \div 2 \\ = \\ \div 2 \end{array} \dfrac{1}{4}$

10. $\dfrac{4}{6} \begin{array}{c} \times 4 \\ = \\ \times 4 \end{array} \dfrac{16}{24}$

11. $\dfrac{6}{9} \begin{array}{c} \div 2 \\ = \\ \div 3 \end{array} \dfrac{3}{3}$

12. $\dfrac{5}{6} \begin{array}{c} \times 3 \\ = \\ \times 3 \end{array} \dfrac{15}{18}$

Find equivalent fractions.

1. $\dfrac{6}{10} = \dfrac{}{40}$

2. $\dfrac{4}{12} = \dfrac{2}{}$

3. $\dfrac{4}{8} = \dfrac{}{4}$

4. $\dfrac{4}{6} = \dfrac{16}{}$

5. $\dfrac{9}{12} = \dfrac{}{4}$

6. $\dfrac{5}{6} = \dfrac{15}{}$

Solve and interpret the equivalent fractions.

7. Claire is preparing fruit baskets for all her friends. 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?

$$\dfrac{4}{6} = \dfrac{}{24}$$

8. A recipe calls for five cups of raisins and six cups of nuts. If Lester uses 18 cups of nuts, how many cups of raisins does he need to use in the recipe?

$$\dfrac{5}{6} = \dfrac{}{18}$$

Find equivalent fractions.

1. $\dfrac{7}{8} = \dfrac{14}{}$

2. $\dfrac{16}{18} = \dfrac{}{9}$

3. $\dfrac{22}{24} = \dfrac{11}{}$

4. $\dfrac{9}{10} = \dfrac{}{20}$

5. $\dfrac{15}{21} = \dfrac{}{7}$

6. $\dfrac{12}{14} = \dfrac{}{28}$

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?

$$\dfrac{16}{18} = \dfrac{}{9}$$

8. The park ranger puts 24 sunfish for every 30 perch into the pond. If he only puts in 15 perch, how many sunfish would the park ranger put in?

$$\dfrac{24}{30} = \dfrac{}{15}$$