

Name _____

Rewrite Fractions with Common Denominators

I Can rewrite a pair of fractions so that they have a common denominator.

Florida's B.E.S.T.

- Fractions 5.FR.2.1
- Mathematical Thinking & Reasoning
MTR.1.1, MTR.2.1, MTR.3.1, MTR.4.1,
MTR.5.1, MTR.6.1, MTR.7.1



UNLOCK the Problem Real World

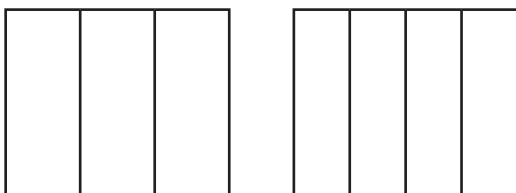
Sarah planted two 1-acre gardens. One had three sections of flowers and the other had 4 sections of flowers. She plans to divide both gardens into more sections so that they have the same number of equal-sized sections. How many sections will each garden have?

You can use a **common denominator** or a common multiple of two or more denominators to write fractions that name the same part of a whole.



One Way Multiply the denominators.

THINK



Think: Divide each $\frac{1}{3}$ into fourths and divide each $\frac{1}{4}$ into thirds. Each of the wholes will be divided into the same-sized parts, twelfths.

So, both gardens will have _____ sections.

RECORD

- Multiply the denominators to find a common denominator.
A common denominator of $\frac{1}{3}$ and $\frac{1}{4}$ is _____.
- Write $\frac{1}{3}$ and $\frac{1}{4}$ as equivalent fractions using the common denominator.

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

Another Way Use a list.

- Make a list of the first eight nonzero multiples of 3 and 4.

Multiples of 3: 3, 6, 9, _____, _____, _____, _____, _____

Multiples of 4: 4, 8, _____, _____, _____, _____, _____, _____

- Circle the common multiples.
- Use one of the common multiples as a common denominator to write equivalent fractions for $\frac{1}{3}$ and $\frac{1}{4}$.

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

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

So, both gardens can have _____ or _____ sections.

Math Talk

MTR 4.1 Engage in discussions on mathematical thinking.

Explain what a common denominator of two fractions represents.

Example Use a common denominator.

Find a common denominator of $\frac{3}{4}$ and $\frac{1}{6}$. Use a common denominator to write an equivalent fraction for each fraction.

STEP 1 List nonzero multiples of the denominators. Find a common multiple.

Multiples of 4: _____

Multiples of 6: _____

So, a common denominator of $\frac{3}{4}$ and $\frac{1}{6}$ is _____.

STEP 2 Using a common denominator, write an equivalent fraction for each fraction.

Think: What number multiplied by the denominator of the fraction will result in a common denominator?

$$\frac{3}{4} = \frac{?}{12} = \frac{3 \times 3}{4 \times 3} = \frac{\boxed{}}{\boxed{}} \rightarrow \text{common denominator}$$

$$\frac{1}{6} = \frac{?}{12} = \frac{1 \times \boxed{}}{6 \times \boxed{}} = \frac{\boxed{}}{\boxed{}} \rightarrow \text{common denominator}$$

$\frac{3}{4}$ can be rewritten as _____ and $\frac{1}{6}$ can be rewritten as _____.

Share and Show



1. Find a common denominator of $\frac{1}{6}$ and $\frac{1}{9}$. Rewrite the pair of fractions using the common denominator.

- Multiply the denominators.

A common denominator of $\frac{1}{6}$ and $\frac{1}{9}$ is _____.

- Rewrite the pair of fractions using the common denominator.

$$\frac{1}{6} = \frac{\boxed{}}{\boxed{}} \quad \frac{1}{9} = \frac{\boxed{}}{\boxed{}}$$

Use a common denominator to write an equivalent fraction for each fraction.

2. $\frac{1}{3}, \frac{1}{5}$ common denominator: _____

3. $\frac{2}{3}, \frac{5}{9}$ common denominator: _____

4. $\frac{2}{9}, \frac{1}{15}$ common denominator: _____



MTR 2.1 Demonstrate understanding in multiple ways.

Explain two methods for finding a common denominator of two fractions.