

# Subtracting Fractions with Unlike Denominators

When you subtract fractions with unlike denominators, you need to change them to equivalent fractions that have a common denominator.

Sylvie wanted to pick  $\frac{3}{4}$  of the flowers in her garden. Because it started to rain, she was able to pick only  $\frac{1}{3}$  of the flowers. What fraction of the flowers are left for Sylvie to pick?

Find  $\frac{3}{4} - \frac{1}{3}$ .

**Step 1** Rewrite the fractions using a common denominator. *Think:* What number has 4 and 3 as factors? 12

$$\begin{array}{ccc} \frac{3}{4} & = & \frac{9}{12} \\ \uparrow \times 3 & & \uparrow \times 3 \\ \frac{1}{3} & = & \frac{4}{12} \\ \downarrow \times 3 & & \downarrow \times 3 \end{array}$$

Sylvie has  $\frac{5}{12}$  of the flowers left to pick.

**Step 2** Subtract the equivalent fractions. Write the difference in simplest form.

$$\begin{array}{r} \frac{3}{4} = \frac{9}{12} \\ - \frac{1}{3} = \frac{4}{12} \\ \hline \frac{5}{12} \end{array}$$

$\frac{5}{12}$  is in simplest form.

Write the answers in simplest form.

1.  $\frac{1}{3} - \frac{2}{9}$

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2.  $\frac{3}{5} - \frac{1}{10}$

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3.  $\frac{1}{2} - \frac{1}{8}$

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4.  $\frac{2}{3} - \frac{1}{6}$

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5.  $\frac{7}{12} - \frac{1}{3}$

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6.  $\frac{4}{5} - \frac{2}{10}$

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7.  $\frac{7}{15} - \frac{2}{5}$

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8.  $\frac{3}{4} - \frac{3}{16}$

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9.  $\frac{5}{8} - \frac{1}{2}$

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10.  $\frac{1}{2} - \frac{1}{5}$

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11. At the dance, Lyndi and Josh danced  $\frac{3}{4}$  hour without stopping. This is  $\frac{3}{8}$  hour more than Kecia and Les danced. How long did Kecia and Les dance? \_\_\_\_\_