

STUDY LINK
6•9

Adding and Subtracting Fractions



Multiplication Rule

To find a fraction equivalent to a given fraction, multiply the numerator and the denominator of the fraction by the same number.

$$\frac{a}{b} = \frac{a * n}{b * n}$$

Example 1: $\frac{4}{9} - \frac{1}{3} = ?$

$$\frac{1}{3} = \frac{2}{6} = \left(\frac{3}{9}\right) = \frac{4}{12} = \frac{5}{15} = \frac{6}{18} = \dots$$

9 is a common denominator.

$$\frac{4}{9} - \frac{1}{3} = \frac{4}{9} - \frac{3}{9} = \frac{1}{9}$$

Example 2: $\frac{5}{8} + \frac{2}{5} = ?$

$$\frac{5}{8} = \frac{10}{16} = \frac{15}{24} = \frac{20}{32} = \left(\frac{25}{40}\right) = \frac{30}{48} = \dots$$

$$\frac{2}{5} = \frac{4}{10} = \frac{6}{15} = \frac{8}{20} = \frac{10}{25} = \frac{12}{30} = \frac{14}{35} = \left(\frac{16}{40}\right) = \frac{18}{45} = \dots$$

Both fractions can be rewritten with the common denominator 40.

$$\frac{5}{8} + \frac{2}{5} = \frac{25}{40} + \frac{16}{40} = \frac{41}{40}, \text{ or } 1\frac{1}{40}$$

Find a common denominator. Then add or subtract.

1. $\frac{2}{3} + \frac{4}{5} =$ _____

2. $\frac{8}{9} - \frac{5}{6} =$ _____

3. $\frac{3}{4} + 1\frac{1}{2} =$ _____

4. Lisa was 4 feet $10\frac{1}{2}$ inches tall at the end of fifth grade. During the year, she had grown $2\frac{3}{4}$ inches. How tall was Lisa at the start of fifth grade?

_____ feet _____ in.

5. Bill was baking two different kinds of bread. One recipe called for $3\frac{1}{2}$ cups of flour. The other called for $2\frac{1}{3}$ cups of flour. How much flour did Bill need in all?

_____ cups