

Adding and Subtracting Fractions

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- * To add or subtract fractions you need a Common denominator (the bottom number must be the same)
- * You need to convert one or both fractions
- * only add or subtract the numerators (top), the denominators (bottom) stay the same.
- * Report final answer:
 1. In lowest terms
 2. As a mixed fraction

Ex. $\frac{2 \times 1}{2 \times 5} + \frac{3}{10}$

think of the multiples for the denominator

5: 5, 10, 15, ... LCM = 10

10: 10, 20, 30, ...

$$\frac{2}{10} + \frac{3}{10} = \frac{2+3}{10} = \frac{5}{10} \div 5$$

$$\left(\frac{1}{2}\right)$$

Ex. $\frac{1}{4} + \frac{3}{5}$

4: 4, 8, 12, 16, 20, 24, ... LCM = 20

5: 5, 10, 15, 20, 25, ...

$$\frac{5 \times 1}{5 \times 4} + \frac{3 \times 4}{5 \times 4}$$

$$\frac{5}{20} + \frac{12}{20} = \frac{5+12}{20} = \left(\frac{17}{20}\right)$$

Ex. $\frac{1}{6} - \frac{1}{9}$

6: 6, 12, 18, 24, ... LCM = 18

9: 9, 18, 27, ...

$$\frac{3 \times 1}{3 \times 6} - \frac{1 \times 2}{9 \times 2}$$

$$\frac{3}{18} - \frac{2}{18} = \frac{3-2}{18} = \left(\frac{1}{18}\right)$$