

Fractions lesson 2 - Add and Subtract Fractions

Magic Monk Tutorials

1 Evaluate the following fractions.

1.1 $\frac{1}{2} + \frac{1}{8}$

Multiply the numerator and denominator of the first fraction by 4 to get a common denominator.

$$\frac{1 \cdot 4}{2 \cdot 4} + \frac{1}{8} = \frac{4}{8} + \frac{1}{8}$$

Join the fractions as they share the same denominator.

$$\frac{4}{8} + \frac{1}{8} = \frac{4+1}{8} = \frac{5}{8}$$

1.2 $\frac{2}{3} - \frac{8}{3}$

Since the fractions share the same denominator, we can subtract the numerators.

$$\frac{2}{3} - \frac{8}{3} = \frac{2-8}{3} = \frac{-6}{3}$$

We can simplify the above fraction to -2 .

1.3 $\frac{1}{3} - \frac{1}{4}$

Multiply numerator and denominator of the first fraction by 4 and the numerator and denominator of the second fraction by 3 to get a shared denominator of 12.

$$\frac{1 \cdot 4}{3 \cdot 4} - \frac{1 \cdot 3}{4 \cdot 3} = \frac{4}{12} - \frac{3}{12} = \frac{4-3}{12} = \frac{1}{12}$$

1.4 $\frac{1}{6} + \frac{3}{4}$

Multiply numerator and denominator of the first fraction by 2 and the numerator and denominator of the second fraction by 3 to get a shared denominator of 12.

$$\frac{1 \cdot 2}{6 \cdot 2} + \frac{3 \cdot 3}{4 \cdot 3} = \frac{2}{12} + \frac{9}{12} = \frac{2+9}{12} = \frac{11}{12}$$

1.5 $\frac{1}{5} - \frac{1}{6}$

Multiply numerator and denominator of the first fraction by 6 and the numerator and denominator of the second fraction by 5 to get a shared denominator of 30.

$$\frac{1 \cdot 6}{5 \cdot 6} - \frac{1 \cdot 5}{6 \cdot 5} = \frac{6}{30} - \frac{5}{30} = \frac{6-5}{30} = \frac{1}{30}$$

1.6 $\frac{4}{7} + \frac{3}{5}$

Multiply numerator and denominator of the first fraction by 5 and the numerator and denominator of the second fraction by 7 to get a shared denominator of 35.

$$\frac{4 \cdot 5}{7 \cdot 5} + \frac{3 \cdot 7}{5 \cdot 7} = \frac{20}{35} + \frac{21}{35} = \frac{20 + 21}{35} = \frac{41}{35}$$