

# Solving Rational Equations

TYPE 1 –

**Fraction = Fraction**

Cross multiply, then solve.

Ex. 1

$$\frac{2}{x} = \frac{-3}{4}$$

Ex. 2

$$\frac{3}{9} = \frac{5y}{38}$$

Ex. 3

$$\frac{2}{6x + 2} = \frac{x}{3x^2 + 11}$$

TYPE 2 –

**Fraction = Fraction  $\pm$  Fraction**

(Common denominator)

Drop all denominators and solve.

Ex. 1

$$\frac{x + 2}{x^2} = \frac{1}{x^2} + \frac{3x + 3}{x^2}$$

Ex. 2

$$\frac{5}{5m} + \frac{m}{5m} = \frac{4}{5m}$$