

## Rational Expression

a fraction of **polynomials**

$$\frac{\text{polynomial}}{\text{polynomial}}$$

$$\frac{3}{2x}$$

$$\frac{4x + 1}{x^2 - 9}$$

$$\frac{2x^2 + 3x - 2}{x^2 - 4x + 6}$$

Anything you do with fraction you can do with **rational expression**, but with **rational expressions** there are more rules to consider.

Perform the following operations

$$\frac{4}{x} + \frac{3}{2}$$

$$\frac{3}{5x} + \frac{5}{3x^2}$$

Perform the following operations

$$\frac{7}{4a} - \frac{4}{b}$$

$$\frac{9}{4x} + \frac{6}{5x^2}$$

Perform the following operations

$$\frac{3}{x^2} + \frac{x}{(x-1)}$$

Perform the following operations

$$\frac{2}{(x+1)} + \frac{4}{(x+4)}$$

Perform the following operations

$$\frac{2}{x^2-9} + \frac{4}{x^2+5x+6}$$