

A quadratic expression is an expression written in the form

$$ax^2 + bx + c$$

where $a \neq 0$

Given a quadratic expression, determine the values of a , b , and c .

$$2x^2 + 3x + 5$$

$$-x^2 - 3x + 9$$

$$x^2 + 2x - 4$$

$$3x^2 - 7$$

Given a quadratic expression, we can create a quadratic function.

To create a quadratic function, set y or $f(x)$ equal to the quadratic expression

In math, we graph quadratic functions

Quadratic Expression

Quadratic Function

$$2x^2 + 3x + 5$$

$$y = 2x^2 + 3x + 5$$

$$-x^2 - 3x + 9$$

$$f(x) = -x^2 - 3x + 9$$

$$x^2 + 2x - 4$$

$$y = x^2 + 2x - 4$$

$$3x^2 - 7$$

$$f(x) = 3x^2 - 7$$

Given a quadratic expression, we can create a quadratic equation.
 To create a quadratic equation, set 0 equal to the quadratic expression
 In math, we solve quadratic equations for x .

Quadratic Expression

Quadratic Equation

$$2x^2 + 3x + 5$$

$$0 = 2x^2 + 3x + 5$$

$$-x^2 - 3x + 9$$

$$0 = -x^2 - 3x + 9$$

$$x^2 + 2x - 4$$

$$0 = x^2 + 2x - 4$$

$$3x^2 - 7$$

$$0 = 3x^2 - 7$$

A quadratic expression is an expression written in the form

$$ax^2 + bx + c$$

where $a \neq 0$

Given a quadratic expression, determine the values of a , b , and c .

To create a quadratic function,
 set y or $f(x)$ equal to the quadratic
 expression

To create a quadratic equation,
 set 0 equal to the quadratic expression

$$y = ax^2 + bx + c$$

$$0 = ax^2 + bx + c$$

$$f(x) = ax^2 + bx + c$$