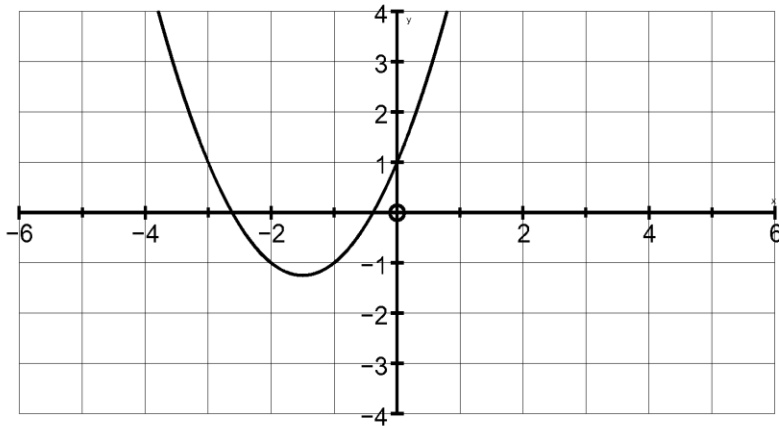


Learning Objective: To solve equations of the form $x^2 + ax + b = c$



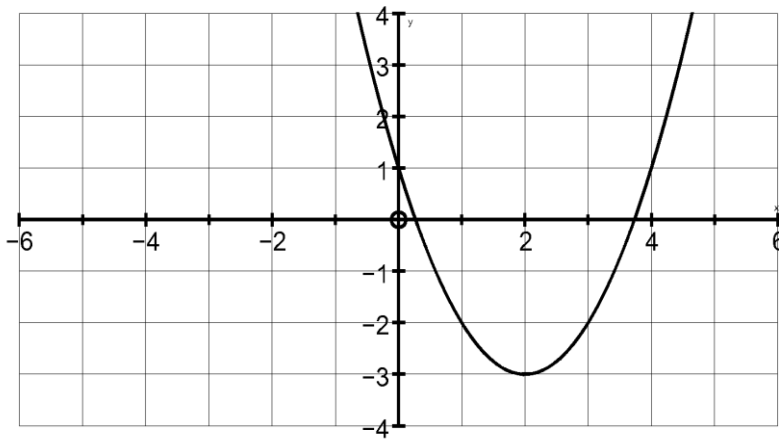
$$y = x^2 + 3x + 1$$

Solve, $x^2 + 3x + 1 = 0$

Solve, $x^2 + 3x + 1 = 2$

Solve, $x^2 + 3x + 1 = -1$

Solve, $x^2 + 3x + 0 = 0$

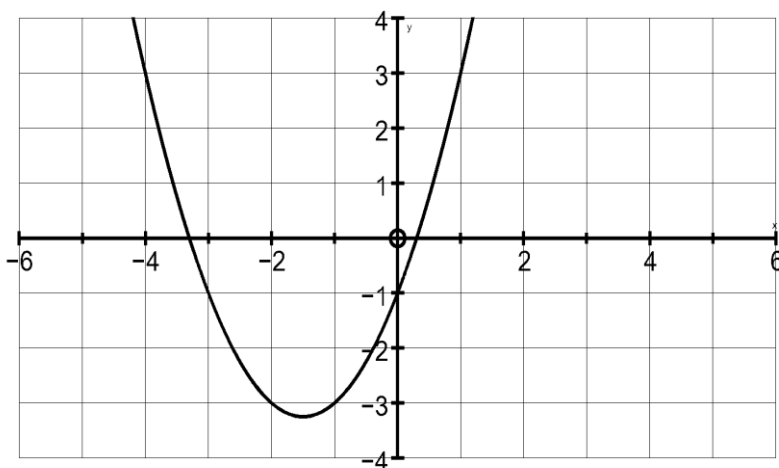


$$y = x^2 - 4x + 1$$

Solve, $x^2 - 4x + 1 = 0$

Solve, $x^2 - 4x + 1 = 3$

For what range of values of c does the equation $x^2 - 4x + 1 = c$ have no solutions?



$$y = x^2 + 3x - 1$$

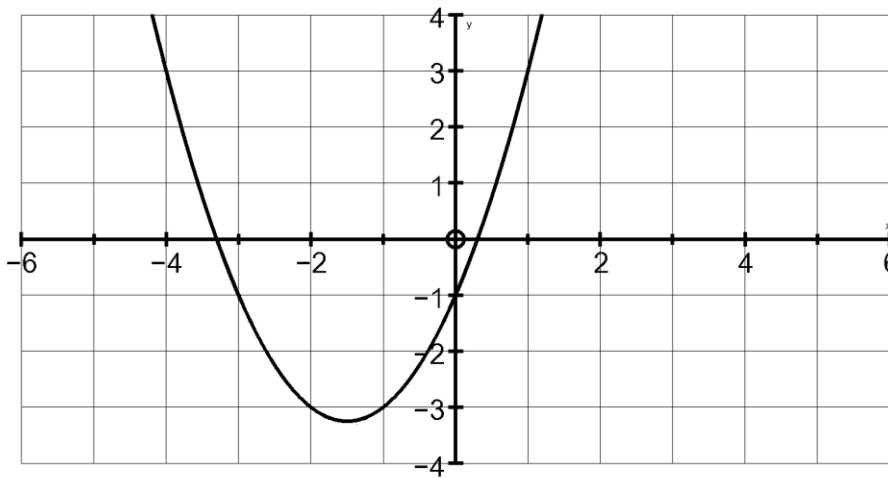
Solve, $x^2 + 3x - 1 = 0$

Solve, $x^2 + 3x - 1 = 3$

Solve, $x^2 + 3x + 2 = 5$

Approximately, for what value of c does the equation $x^2 + 3x - 1 = c$ have exactly one solution?

Learning Objective: To graphically solve the intersection of quadratic graphs with linear graphs



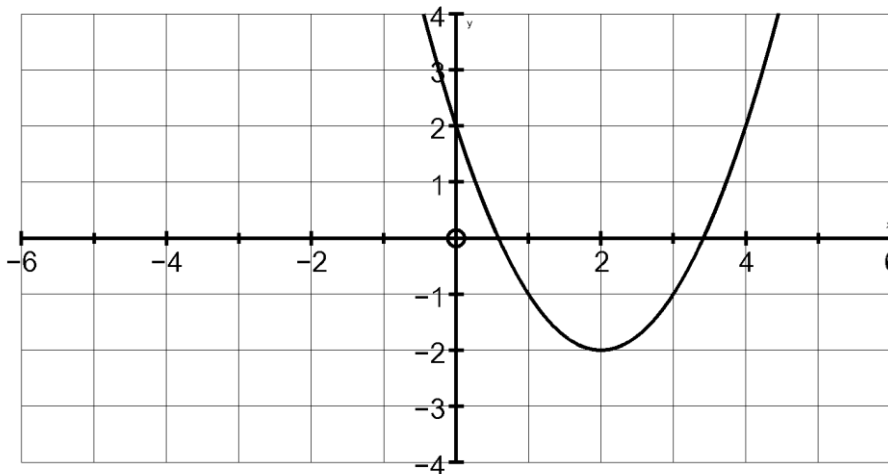
$$y = x^2 + 3x - 1$$

Solve the following equations:

$$x^2 + 3x - 1 = 0$$

$$x^2 + 3x - 1 = x + 1$$

$$x^2 + 3x - 1 = 2x + 1$$



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

Solve the following equations:

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

$$x^2 - 4x + 2 = x - 3$$

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

$$x^2 - 3x + 1 = 0$$