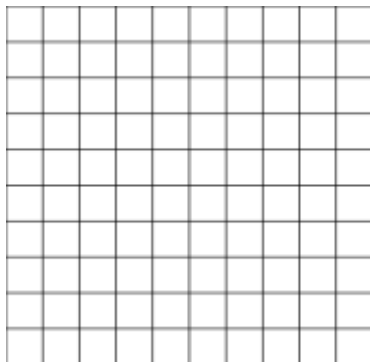


Name: _____ Period: _____ Date: _____

Systems of Linear and Quadratic Equations Bell Work

Solve the system of equations by graphing.

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



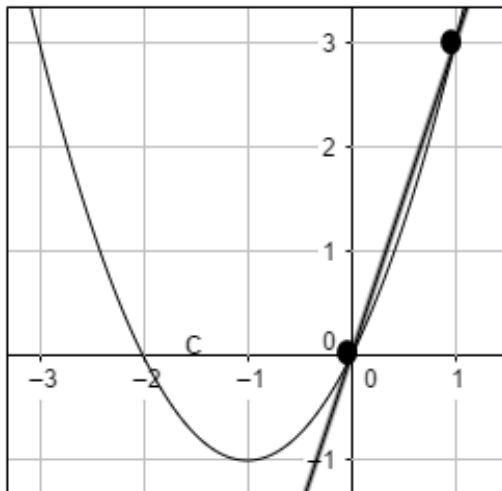
Solve the system of equation algebraically.

$$y = x^2 - 6 ; y = -7x + 12$$

Systems of Linear and Quadratic Equations Bell Work

Solve the system of equations by graphing.

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The points where two graphs intersect are **(0,0)** and **(1,3)**.

Solve the system of equation algebraically.

$$y = x^2 - 6 ; y = -7x + 12$$

First put the value of y from linear equation into the quadratic equation.

$$-7x + 12 = x^2 - 6 \rightarrow x^2 + 7x - 18 = 0$$

$$\rightarrow x^2 + 9x - 2x - 18 = 0$$

$$\rightarrow (x + 9)(x - 2) = 0$$

$$\rightarrow x = -9, x = 2$$

$$y = -7(-9) + 12 = 75 ; y = -7(2) + 12 = -2$$

Solutions: **(-9, 75)**, **(2, -2)**