

Quadratic functions and Equations:

Practice

1. for ax^2+bx+c , use $x = \frac{-b}{2a}$ to find the axis of symmetry

a. $y = x^2 + 4x + 3$

b. $y = -5x^2 + 6x - 9$

2. find the vertex:

a. $y = 6x^2 + 3x - 2$

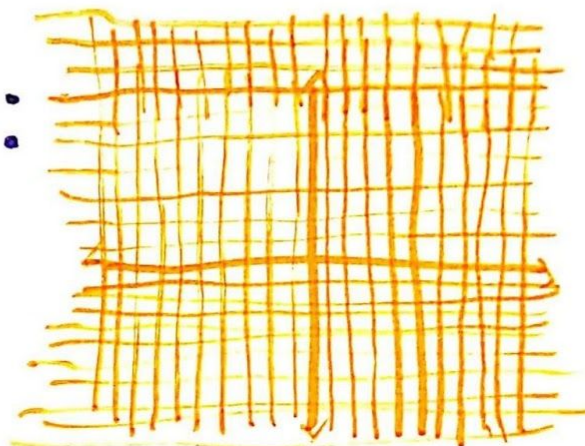
b. $y = -x^2 + 2x + 5$

Quadratic Functions and Equations:

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3. The highest or lowest point on a parabola is called the _____.

4. Graph $-4x^2 - 2$:



5. Use the quadratic formula to solve for

x:

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

a.

$$3x^2 + 2x - 6$$

b.

$$4x^2 - 5x + 8$$

Quadratic Formula and Equations:

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6. How many solutions are there?
(hint: $b^2 - 4ac$)

a. $4x^2 + 12x + 3 = 0$ b. $x^2 - 2x + 4 = 0$

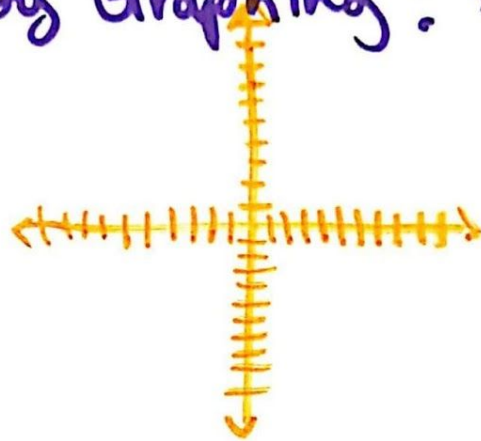
7. Solve using the zero ^{product} property:

a. $x^2 + 10x + 16$ b. $x^2 - 3x - 18$

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8. Solve by Graphing: $x^2 - 3 = 0$



9. Solve using square roots:

a. $x^2 = -144$

b. $5x^2 - 36 = 0$

c. $32x^2 = 1$

d. $x^2 = 64$