

Day 8: Writing Equations in Vertex Form

Date _____

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- 1) Remember in the last unit how we were able to write the equation of a quadratic function given the zeros and a point? Let's Review...

Write the quadratic equation for the following.

- 2) Zeros of $x = -2$ and $x = 4$, and goes through the point $(2, 4)$

- 3) Zeros of $x = -2$ and $x = 2$, and goes through the point $(0, 8)$

What if we are given different critical points?

- 4) Determine the equation of the quadratic function that has a vertex of $(-4, -8)$ and passes through the point $(-2, -5)$.

Step 1: Write the equation in vertex form using the vertex and leaving "A" as the leading coefficient

Step 2: Solve for "A" by substituting the point in for x and y

Step 3: Rewrite the equation replacing the "A"

Write the quadratic equation for the following in Vertex Form.

5) Vertex $(1, 6)$ and goes through the point $(2, 4)$

6) Vertex $(3, -5)$ and goes through the point $(7, -3)$

7) Vertex $(1, -5)$ and goes through the point $(3, 1)$

8) Vertex $(3, 6)$ and goes through the point $(1, 1)$

9) Vertex $(2, 3)$ and goes through the point $(1, -5)$

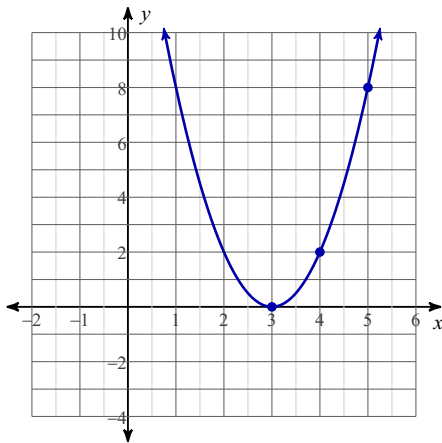
10) Vertex $(-4, 3)$ and goes through the point $(-2, 1)$

11) Vertex $(3, 5)$ and goes through the point $(2, 2)$

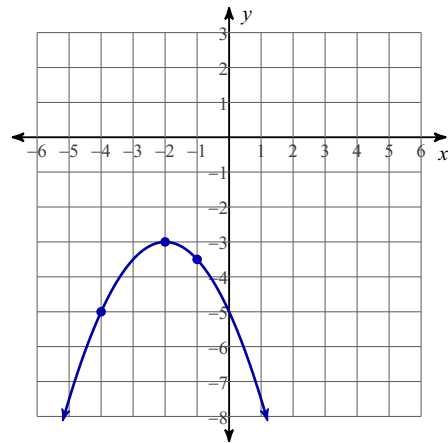
12) Vertex $(1, 4)$ and goes through the point $(3, -4)$

Write the quadratic equation for the following graph in Vertex Form.

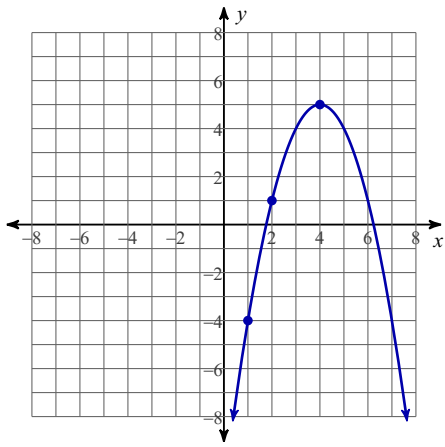
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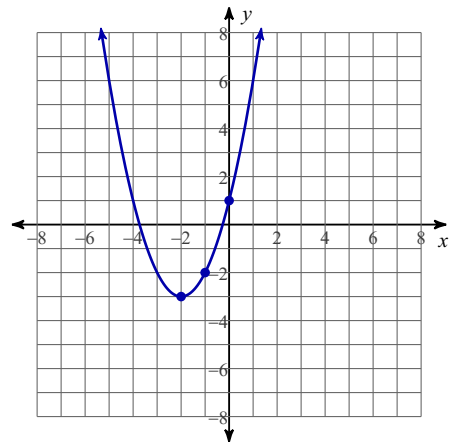
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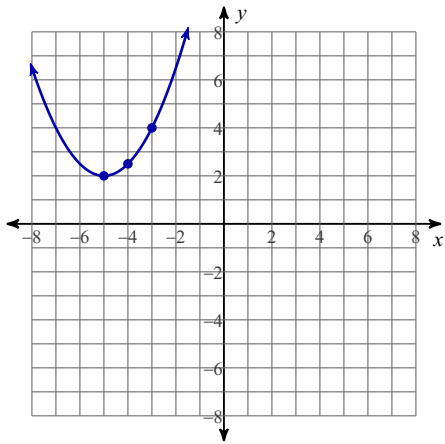
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16)



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18)

