Quadratic Transformation Worksheet Name_____

1. Write the vertex form of a quadratic equation.

2. What does changing the "a" variable do to the graph of a quadratic?

3. Being specific, name 3 ways that a parabola changes with different types of "a" values.

4. What does changing the "h" variable do to the graph of a quadratic?

5. If "h" is positive how does the parabola move? If negative?

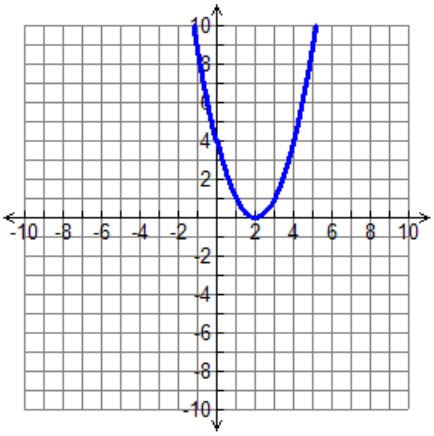
6. What does changing the "k" variable do to the graph of a quadratic?

7. If "k" is positive how does the parabola move? If negative?

8. What conclusion can you make about the variables of h and k together?

Write the quadratic equation, in vertex form for each graph.

1.



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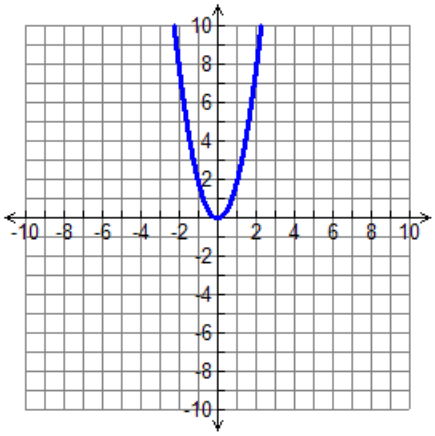

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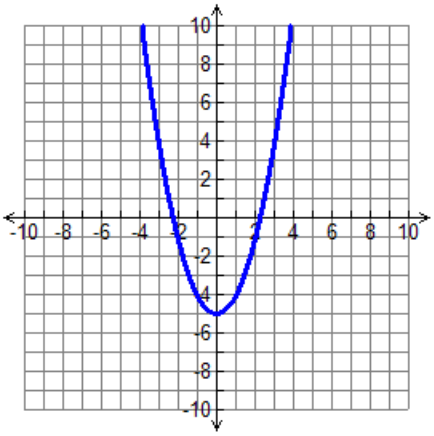

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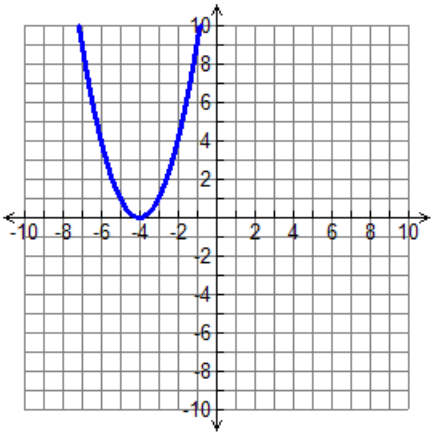

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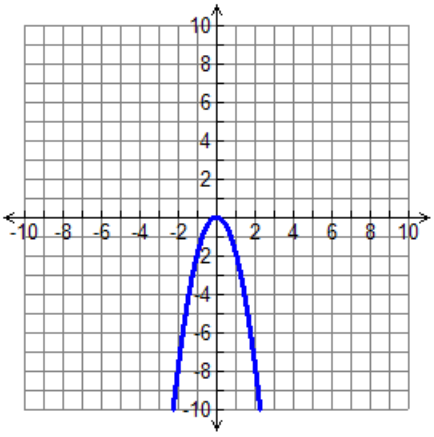

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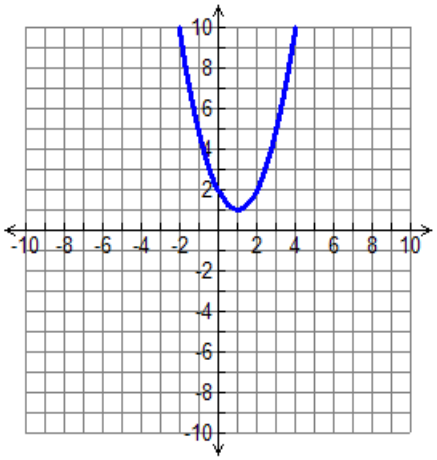

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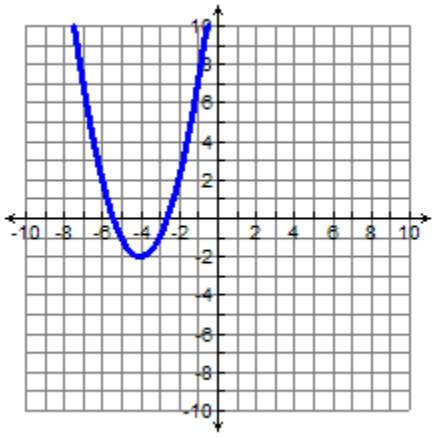

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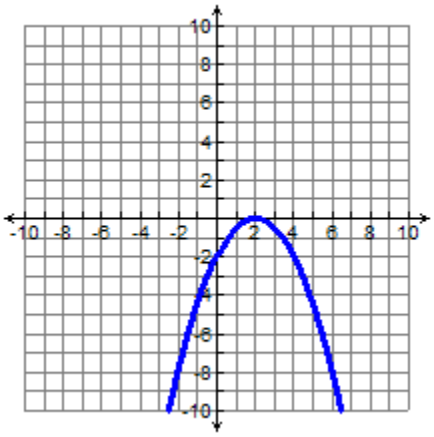

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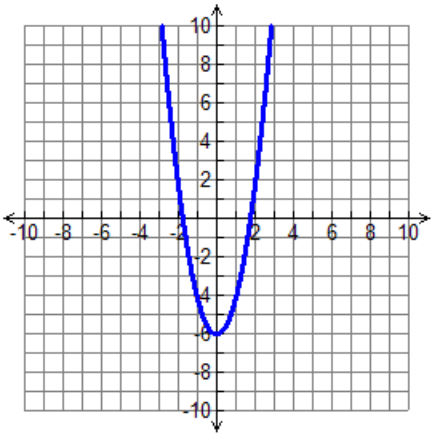

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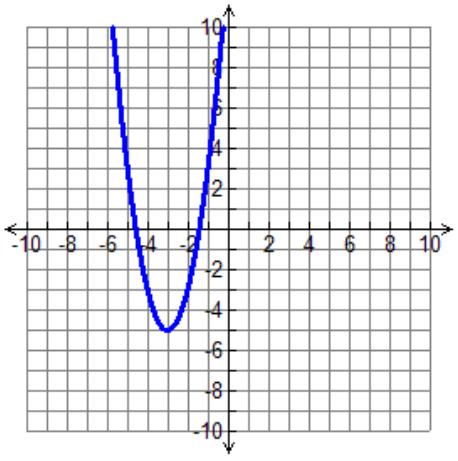
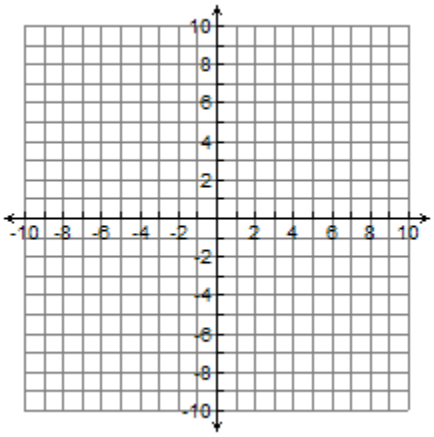
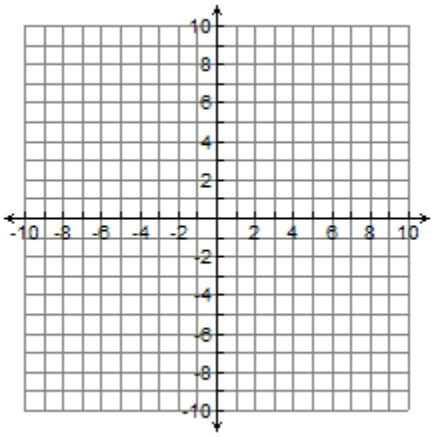


Graph the quadratic equation on the provided grid.

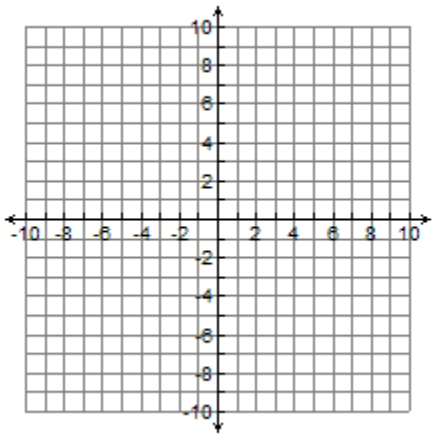
11. $f(x) = (x-0)^2 + 3$



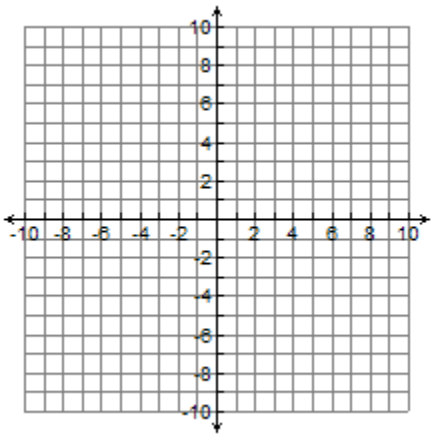
12. $f(x) = (x+4)^2 + 0$



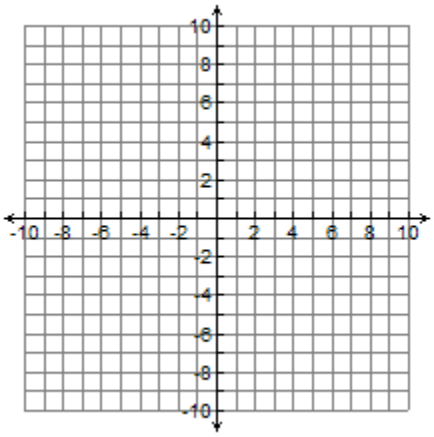
$f(x) = -2(x-0)^2 + 0$



14. $f(x) = (x-3)^2 + 4$



15. $f(x) = 3(x-4)^2 - 6$



16. $f(x) = \frac{1}{2}(x+2)^2 + 3$