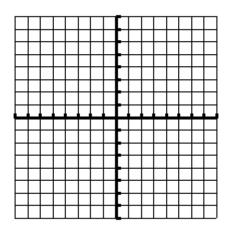
Graph each function.

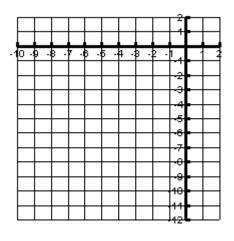
1.
$$y = (x-1)^2 + 2$$

Is the vertex a max or min?



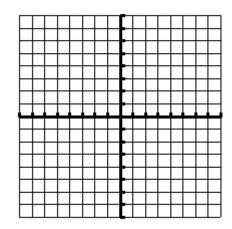
3.
$$y = -3(x+7)^2 - 8$$

Is the vertex a max or min?



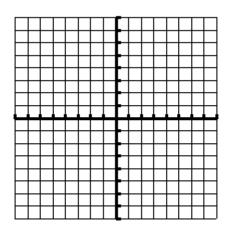
2.
$$y = 2(x-2)^2 + 5$$

Is the vertex a max or min?



4.
$$y = (x-5)^2 - 3$$

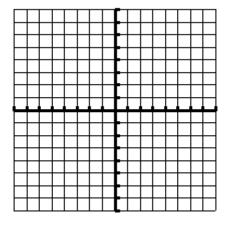
Is the vertex a max or min?



5.
$$y = -(x-1)^2 + 4$$

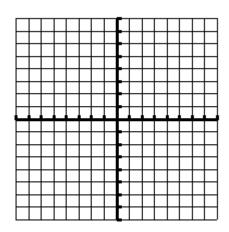
Vertex = _____

Is the vertex a max or min?



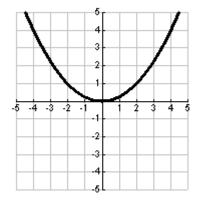
6.
$$y = 2(x+1)^2$$

Is the vertex a max or min?

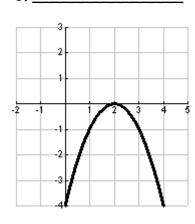


Write the equation of each parabola in vertex form.

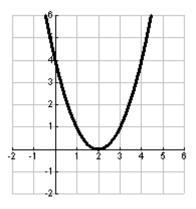
7. _____



8



9



- 10.) Write the vertex form of a quadratic equation.
- 11.) What does changing the "a" variable do to the graph of a quadratic?
- 12.) If "h" is positive how does the parabola move? Negative?
- 13.) What does changing the "k" variable do to the graph of a quadratic?
- 14.) What conclusion can you make about the variables h and k together?