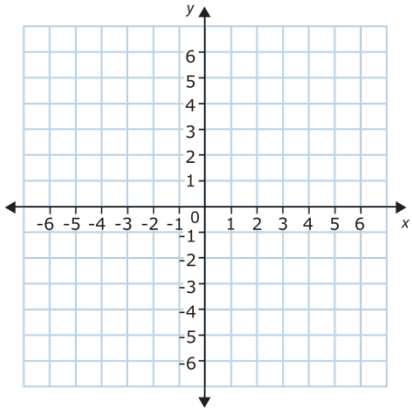

Graphing Quadratic Functions

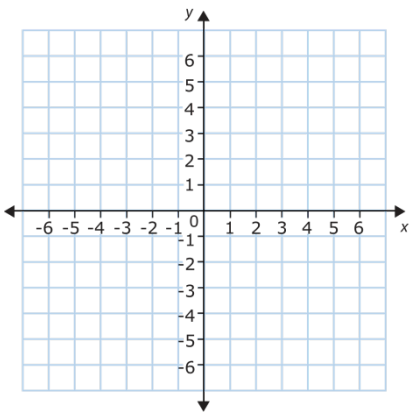
1. A quadratic function has a degree of ____.
2. The shape of the graph of a quadratic function is called a _____.
3. If a parabola opens downward, its vertex is a ____.
4. Evaluate the parent function, $y = x^2$, for -2 .
5. What is the coordinate of the vertex of the parent function $y = x^2$.
6. What is the axis of symmetry of the function $y = x^2 - 2x + 4$?
7. What is the vertex of the function $y = x^2 - 2x + 4$?
8. A "zero of a function" is also known as the:
9. What are the zeros of the function $y = (x + 3)(x - 1)$?
10. What are the zeros of the function $y = x^2 + 5x + 6$?
11. What is the axis of symmetry of the function $y = -2(x - 4)^2 + 1$?
12. What is the vertex of the function $y = (x + 2)^2 + 3$?
13. Evaluate the function $y = (x - 2)^2 - 1$ for $x = 1$.
14. Order the functions from narrowest to widest.
 $f(x) = x^2$ $g(x) = \frac{1}{2}x^2$ $h(x) = 3x^2$
15. In vertex form, $y = a(x - h)^2 + k$, how does changing the "h" value affect the graph?

Graph the functions.

16. $y = x^2 - 4x + 6$



17. $y = (x - 4)(x - 2)$



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

