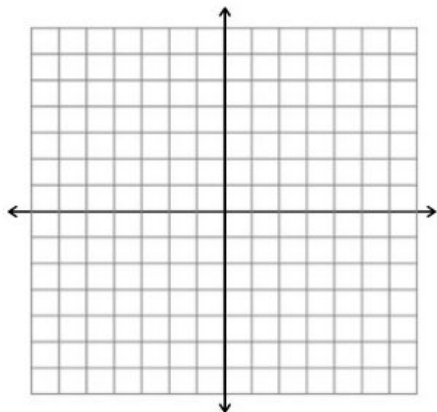


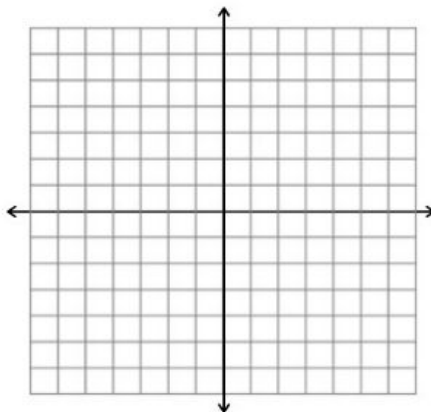
Math 2 Ch 3 Review worksheet

Graph the following functions. MOST IMPORTANTLY...Compare with the graph of the parent function $f(x) = x^2$. This means to describe the transformations from the parent function using appropriate vocabulary.

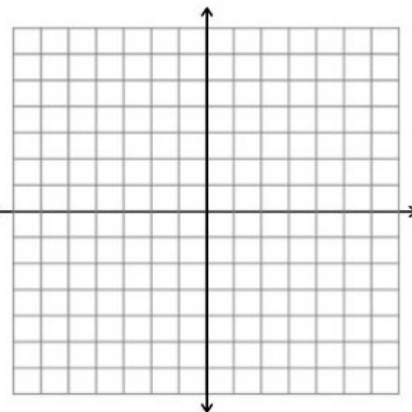
1. $h(x) = \frac{1}{2}x^2$



2. $b(x) = -x^2$

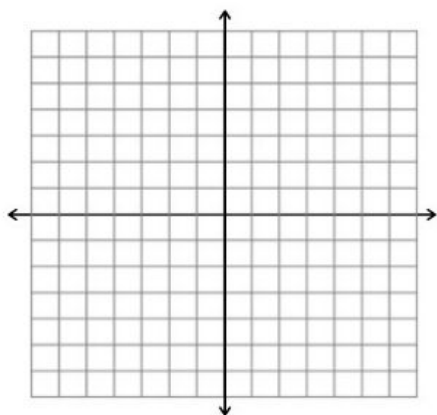


3. $k(x) = x^2 - 2$

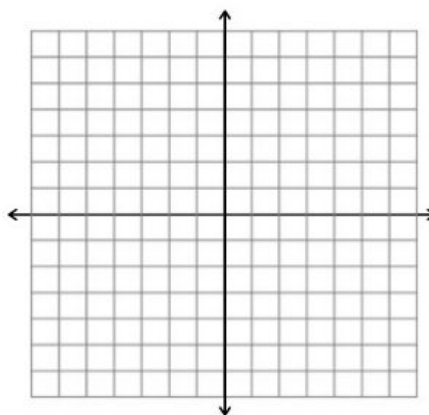


Graph the following functions then state the vertex, axis of symmetry, domain, and range.

4. $g(x) = 2x^2 - 4x$



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



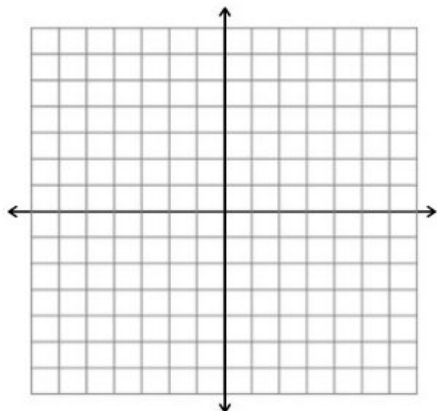
Tell whether the function has a minimum value or maximum value. How do you know? Then find the minimum or maximum value.

6. $y = 3x^2 - 18x + 15$

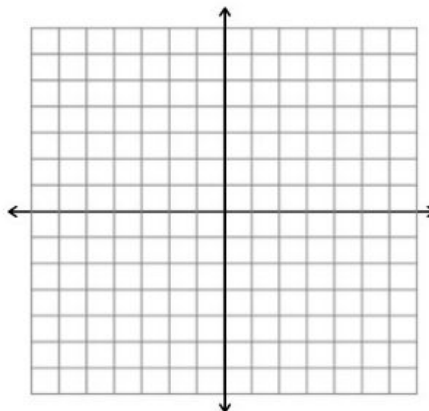
7. $y = -2x^2 - 12x + 13$

Graph the following functions then describe in detail in your own words how the graph of the function $g(x)$ differs from the graph of $h(x)$. You must include a description of the new parabola's shape and the new location. Be sure to include exactly why/how you would know this without looking at a graph.

8. $g(x) = -2(x+2)^2 - 1$
 $h(x) = x^2$



9. $z(x) = (x-1)^2 + 2$
 $h(x) = x^2$



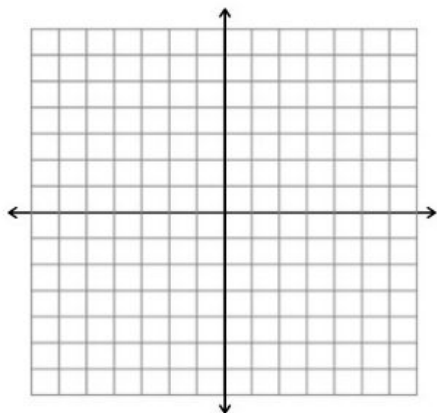
Find the value of "a" for a quadratic function:

10. who's graph has the vertex $(-5, -1)$ and passes through $(-2, 2)$.

11. who's graph has the x-intercepts 1 & -2 and passes through $(3, -8)$.

Graph the following functions then state the vertex, axis of symmetry, domain, and range.

12. $p(x) = -2(x+2)(x-4)$



13. $h(x) = \frac{1}{2}(x-1)(x+7)$

