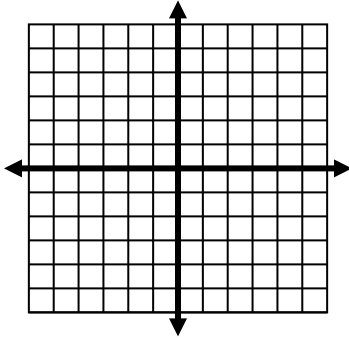


Algebra II Unit 1 Quiz C Study Guide

1) Graph $h(x) = x^2 + 6x + 8$



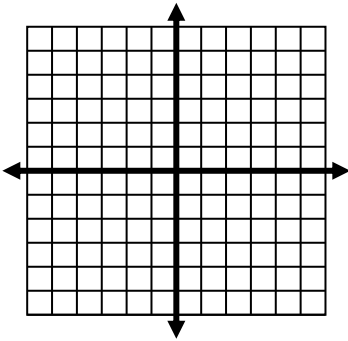
2) What is the vertex & AOS?

3) What are the domain and range?

4) What are the x-intercepts?

5) What is the y-intercept?

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

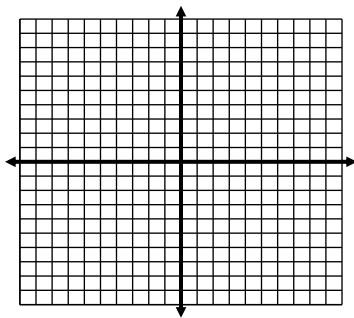


7) What is the vertex & AOS?

8) What is the domain and range of?

9) What is the y-intercept for this function?

10) Graph $r(x) = -x^2 + 9$



11) Domain: _____

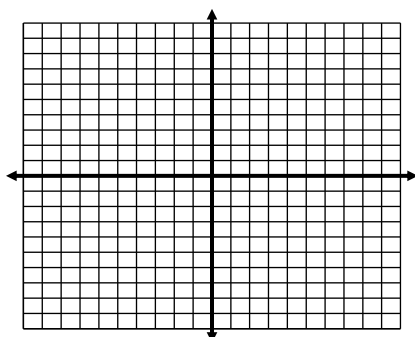
12) Range: _____

13) Vertex: _____ 14) Axis of Symmetry: _____

15) x-intercepts: _____

16) y-intercept: _____

17) Graph $y = -(x + 4)(x - 2)$



18) Zeros: _____

19) Vertex: _____

20) Axis of Symmetry: _____

21) y-intercept: _____

Directions: Name the transformations by comparing each function to $f(x) = x^2$.

22) $g(x) = 3(x - 1)^2$

23) $h(x) = -x^2 + 4$

24) $q(x) = (x - 2)^2 - 5$

Directions: Write the equation in vertex form that has been...

25) Shifted to the right 3 units and down 8 units

26) Reflected over the x-axis & shrunk vertically by $\frac{1}{2}$

27) Reflected over the x-axis and shifted left 9 units

28) Vertically stretched by 5 and shifted up 10 units

29) A ball is thrown upward with an initial velocity of 56 feet per second. The height, h , of the ball t seconds after it is thrown is given by the formula: $h(t) = 56t - 16t^2$

a) What is the height of the ball after one second?

b) How long does it take the ball to reach its maximum height?

c) What is the maximum height?

d) How long does it take the ball to reach the ground?

30) A tall building in downtown Atlanta is 1250 feet tall. If an object is thrown upward from the top of this building at an initial velocity of 38 feet per second, its height s seconds after it is thrown is given by the function $h(s) = -16s^2 + 38s + 1250$. How long will it take for the object thrown to hit the ground?