

Alg2 – Finding Roots from Vertex Form, due Friday 10/6

“Read” each function below to find the vertex and axis of symmetry. Expand each equation into standard form to find the roots (zeros) using the quadratic formula. Also indicate the y -intercept. Make a t -table and graph the equation. Be sure to show *all* of your work. I suggest that you check your answer graphically using your TI-84, Desmos, GeoGebra, or some convenient graphing utility. All of your work should be on separate sheets of paper; not this one.

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

2. $g(x) = (x - 2)^2 - 16$

3. $h(x) = -(x + 3)^2 + 16$

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