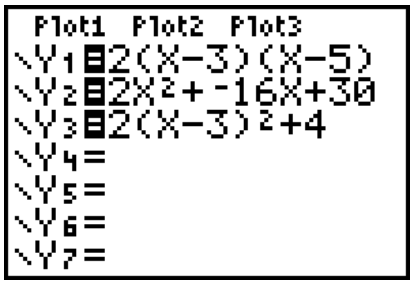
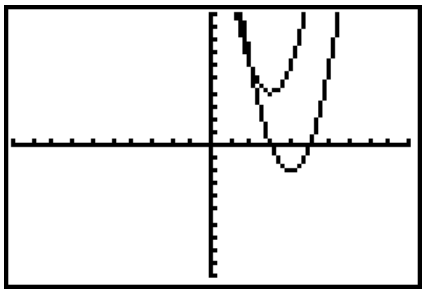
Algebra 2 Quadratic Calculator TIPS Notes

TYPING YOUR EQUATION(S) INTO Y= (TOP LEFT OF CALC)



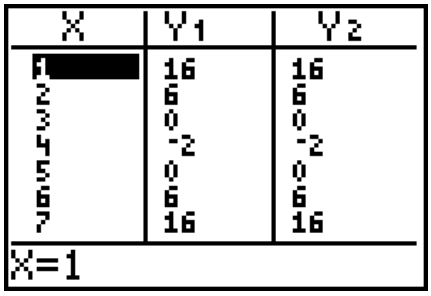
1) **Type your equations into y=**
   a. **To check to see if they are equivalent**
   b. **To check to see if you FOILed correctly**
   c. **To get a visual on the graph**
   d. **To find key characteristics**
   e. **etc.**

GRAPH YOUR EQUATIONS (TOP RIGHT OF CALC)



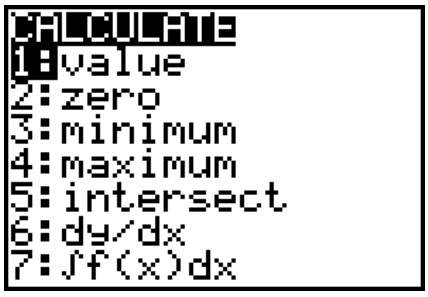
2) **Graph your y = equations**
   a. **To get a visual of the parabola**
   b. **Check they are equivalent (graphs would be the same exact parabola)**
   c. **To find key features (vertex, roots, y-intercept, etc)**
   d. **etc.**

USING YOUR TABLE ON THE CALC (TOP RIGHT: 2ND GRAPH)

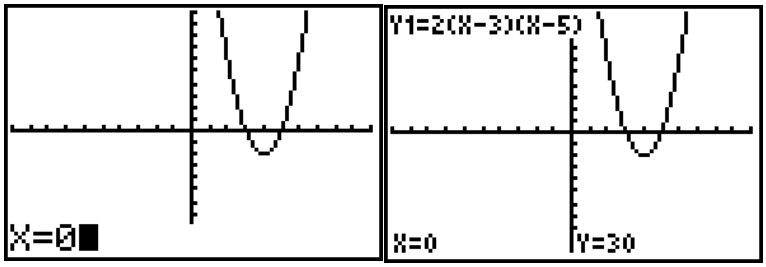


3) **Use your table to find coordinates on the parabola to graph**
4) **Use your table to find the vertex and/or roots/solutions/zeros**

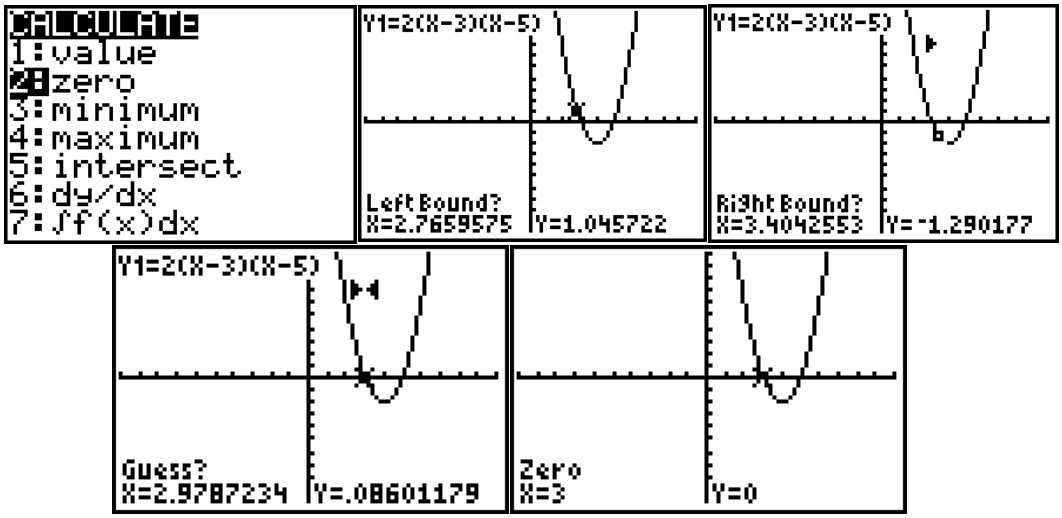
FINDING KEY FEATURES ON THE CALC (TOP RIGHT: 2ND TRACE)



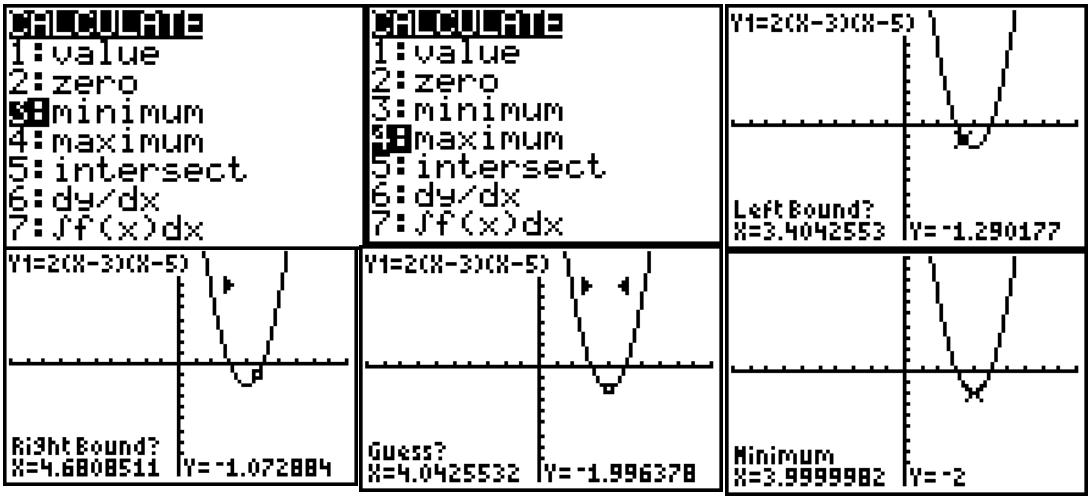
5) **y-intercept (your c in $ax^2 + bx + c$) = value x = 0**



6) Finding zeros/roots/solutions or x-intercepts (in coordinate form)



7) Finding the minimum or maximum (AKA your vertex (h, k))



QUADRATIC REGRESSION (MODELING OR WRITING A FUNCTION RULE)

8) Writing a quadratic function given data points (after doing 1st and 2nd differences)
   a. Hit STAT, EDIT, ENTER
   b. X's into L1 and Y's into L2
   c. Hit STAT, CALC, 5 QUAD REG
   d. $y = ax^2 + bx + c$ and plug in the a, b, & c you are given.