**Performance Assessment Project: Creating a Quadratics Lapbook Date: April 5, 2017**

**Due date: April 27, 2017**

**Instructions**
You need to create a Quadratics Lapbook (what is a lapbook?.....a big foldable). Create 2 quadratic equations, one positive with “a > 1” and one negative with “a = 1”.

Use desmos.com to create the graphs of the quadratics.

Your positive quadratic equation is y = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and

your negative quadratic equation is y = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Now…….You need to complete the following for each quadratics:

Using your equations, show in the lapbook:

1. how to find the zeros of the quadratic by factoring (for rational roots) or complete the squares (for irrational roots)
2. how to the graph of the quadratic (use desmos.com) label each part
3. how to rewrite the quadratic in vertex form y = a(x – h)2 + k (use complete the square)
4. how to use the discriminant (formula for the discriminant: b2 – 4ac)
5. how to use the quadratic formula 
6. how to find the axis of symmetry 
7. how to find the domain and range

You do not have write out the steps. You need to show your work. Do not skip steps.





