

Name _____ Date _____ Pd _____

Gaming Quadratic Regression Activity

Directions: Find a picture on the internet or take your own picture in the real-world that represents a quadratic equation. (If you do not want to use your own picture, I have one for a reduced score.) Then superimpose a coordinate grid on top of your picture to create points on your graphed parabola. Round any decimals to the thousandths. Email your image to noblem@lancastersd.k12.wi.us or hand in a hard-copy of your image used.

1. Pick at least 5 points on your graph and fill in the table below.

x	y

2. Use your calculator to create the equation using quadratic regression.

a = _____ b = _____ c = _____

Equation: _____

3. State what your image is from in real life. _____
4. Show you used the proper regression by calculating your second differences below.

5. State the maximum/minimum, roots/zeros, and y-intercept in coordinate form.

Maximum/Minimum; value too: _____

Roots/Zeros/Solutions: _____

y-intercept: _____

Vertex: _____

6. Write an explanation in words of what the answers in question 5 mean in terms of your real-world problem/image.

Max/Min and its value:

Roots/Zeros/Solutions:

Y-intercept:

Vertex:

7. How do you know, from looking at your image, if the value of "a" will be positive or negative? Explain your answer in a complete sentence.