Unit 4 (Quadratics) Blog Post

Below is a list of the Learning Outcomes for this unit:

Demonstrate an understanding of the characteristics of quadratic functions, including: vertex, intercepts, domain and range, and axis of symmetry
- Determine the x- and y-intercepts
- Determine, by factoring, the roots of a quadratic equation and verify by substitution
- Determine, using the quadratic formula, the roots of a quadratic equation
- Explain the relationship between the roots of an equation, the zeros of the corresponding function, and the x-intercepts of the graph of the function
- Explain, using examples, why the graph of a quadratic function may have zero, one or two x-intercepts
- Express a quadratic equation in factored form, using the zeros of a corresponding function or the x-intercepts of its graph
- Determine, with or without technology, the coordinates of the vertex of the graph of a quadratic function
- Determine the equation of the axis of symmetry of the graph of a quadratic function, given the x-intercepts of the graph
- Determiner the coordinated of the vertex of the graph of a quadratic function, given the equation of the function and the axis of symmetry, and determine if the y-coordinate of the vertex is a maximum or a minimum
- Determine the domain and range of a quadratic function
- Sketch the graph of a quadratic function
- Solve a contextual problem that involves the characteristics of a quadratic function

In this blog post, you will identify and address an area of weakness that you have in the current unit.

1. Using your Mid-Chapter Check-In, Take-Home Quiz and above list of Learning Outcomes, identify an area of weakness or a specific skill you are struggling with.
2. Give an example question that addresses your area of weakness (not from the Mid-Unit Check-In worksheet)
3. Find a YouTube video or some other online resource that you can use to improve this area of weakness. Embed this resource in your blog post.
4. Work through a solution to the question you selected in step 2. Explain each step of the process.
5. Reflect on your area of weakness before and after the blog post. Your reflection could include thoughts such as:
   a. What misconceptions did you have previously that made this skill challenging?
   b. What key things did you learn?
   c. How does this connect to other skills/concepts in the unit?

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See next page for marking rubric.

	Meeting/Exceeding (4)	Almost Meeting (3)	Partially Meeting (2)	Not Yet Meeting (1)	No Attempt Made (0)
Identification of area of weakness	An appropriately challenging and specific area of weakness is identified.	An area of weakness is identified.	An area of weakness is vaguely identified. It may not be appropriately challenging OR may not specific.	An area of weakness is not clearly identified.	No area of weakness is identified.
Example Question	Example question is specific, challenging and closely linked to area of weakness identified.	Example question is outlined.	Example question is outlined but may not be appropriately challenging, OR may not be closely linked to area of weakness	Example question is loosely related to area of weakness identified.	No example question given.
Relevant Resource	Resource that thoroughly and accurately addresses area of weakness is embedded directly into blog post.	Relevant resource is given.	Resource is minimally related to area of weakness. Resource may be not appropriate to current grade level knowledge or may not adequately address identified weakness.		No resource given.
Before and After Reflection	Thoughtful reflection addresses learning process. Is able to identify previous misconceptions and demonstrates a learned understanding of the area of weakness. Reflection goes beyond the basic requirement of above stated questions.	Reflection gives basic answers to above stated questions.	Reflection gives minimal answers to above stated questions.	Reflection minimally answers some of the above stated questions.	No reflection given.