**Algebra 2: Quiz 1\_Quadratic Equations**

Write an essay explaining quadratic equations, the important parts of them, and how to solve them.

**Paragraph 1**: a) Explain what makes an equation quadratic instead of linear. (5 points)

 b) What does the graph look like? (5 points)

 c) Which part of the equation controls the slope? (10 points)

 d) What are the important points called? What do they look like on the graph? (10points)

 e) What are the different forms that quadratic equations come in? (10 points)

 f) How can you tell what one of the important points is by looking at one of the equation

 forms? (10 points)

**Paragraph 2**: a)What are the different ways to find the roots? (20 points)

 b)Explain how to use one. You don’t have to say every detail, but do explain the

 important parts. (15 points)

 c) When doesn’t it work? (10 points)

**Paragraph 3**: a) Explain how to use a different method. (15 points)

 b) When doesn’t it work? (10 points)

**Paragraph 4:** a) Which method do you prefer? (5 points)

 b) Why? (10 points)

 **135 points**

**Bonus**: Give an example of when quadratic equations happen in real life that is NOT Angry Birds.

 (15 points, depending on how thorough your answer is)