Quadratics Flipbook Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DIRECTIONS: Answer the following questions by reviewing notes, assignments, quizzes, and video lessons.

1. **Solve by Graphing: Standard Form**
* What is standard form?
* Explain how to graph.
* What does “a” tell you about the graph?
* How do you find the vertex in this form?
* What does “c” tell you about the graph?
* Include an example and a table of values
* Explain how to graph a function in the form y = ax^2
* Explain how to graph a function in the form y = ax^2 + c
* Explain how to graph a function in the form y = ax^2 + bx + c
* Explain how to find the maximum and minimum value of a quadratic equation
1. **Solve by Graphing: Vertex Form**
* What is vertex form?
* Explain how to graph.
* What does “a” tell you about the graph?
* How do you find the vertex in this form?
* Include an example and a table of values
1. **Solve by Graphing: Intercept Form**
* What is Intercept form?
* Explain how to graph.
* What does “a” tell you about the graph?
* How do you find the vertex in this form?
* Include an example and a table of values
1. **🡪 Graphing Quadratic Inequalities**
* How do you know if the boundary line is solid or dashed?
* How do you know if you shade above or below the parabola?
* Give examples
1. **Solve by Factoring**
* Explain how to factor when 
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* Define and explain GCF
* Explain how to factor perfect square binomials
* Explain how to factor special trinomials
* Give examples
1. **Solve by taking the square root**
* When can you use the square root method? When can you not?
* Explain how to use the square root method to solve equations.
* Explain properties of square roots (Adding, subtracting, multiplying, and dividing)
* Explain how to use conjugates to rationalize the denominators
* Explain how to model a dropped object with a quadratic function
* Give examples
1. 🡪 **Operations with complex numbers**
* Explain how to evaluate powers of i
* Explain how to add, subtract, multiply, and divide complex numbers
* Give examples
1. **Solve by completing the square**
* Explain how to complete the square of a trinomial
* Provide examples
1. **Solve by using the Quadratic Formula**
* Explain how to use the quadratic formula
* Define the discriminant and what it tells you about the x-intercepts of the quadratic graph
1. **Writing and Interpret Quadratic Functions and Models**
* Explain how to write quadratic models in each form