Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| Use the following to review for you test. **Work the Practice Problems on a separate sheet of paper.** |
| **Topic** | **Things to remember** | **Examples** |
| Characteristics of Quadratics | Domain, Range, Vertex, Axis of Symmetry, Extrema, Increasing, Decreasing, Rates of Change | 1. Analyze the graph using the vocabulary under things to remember [image] | 2. The graph of f(x) has a range  and increase from . Write the equation of f(x). Find the domain, vertex, axis of symmetry, extrema, interval of decrease.  |
| WriteQuadratic Equations using Transformations | Negative in front reflects across x-axisNumber in front stretches or shrinks Number inside parenthesis moves left or rightNumber alone moves up or down | 3. Write the equation of a quadratic that has been reflected and shifted right 7. | 4. Write the equation of a quadratic that has a vertex at (-5, -3), opens up, and is stretched by a factor of 2. |
| Graph Quadratics in Vertex Form | Vertex (h, k)AOS = hTable, Edit Function, Start = AOSScroll up and down to get other ordered pairs | 5. Graph the following function.[image] | 6. Graph the following function. [image] |
| Graph Quadratics in Standard Form | AOS: Vertex Table, Edit Function, Start = AOSScroll up and down to get other ordered pairs | 7. Graph the following function.[image] | 8. Graph the following function. [image] |
| Change form Vertex to Standard Form | Expand the binomial.Distribute any number in front of the parenthesis.Combine like terms. | 9.  | 10.  |
| Change from Standard Form to Vertex Form | Find aFind the h-value by using x = -b/2aPlug in the x to find the h-valueWrite in vertex form. | 11.  | 12.  |
| Compare Quadratic Functions in Different Forms | Find the axis of symmetry, vertex, slope, and y-intercepts based on the equation or table given. | 13.  Axis of Symmetry: \_\_\_Vertex: \_\_\_\_\_\_y-intercept: \_\_\_\_\_ | 14. f(x)= -2x2 + 4x -6Axis of Symmetry: \_\_\_Vertex: \_\_\_\_\_\_Does the graph open up or down? \_\_\_\_\_\_\_\_\_\_\_\_y-intercept: \_\_\_\_\_ |