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. |
| Write  Quadratic Equations using Transformations | Negative in front reflects across x-axis  Number in front stretches or shrinks  Number inside parenthesis moves left or right  Number 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 = h  Table, Edit Function, Start = AOS  Scroll 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 = AOS  Scroll 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 a  Find the h-value by using x = -b/2a  Plug in the x to find the h-value  Write 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 -6  Axis of Symmetry: \_\_\_  Vertex: \_\_\_\_\_\_  Does the graph open up or down? \_\_\_\_\_\_\_\_\_\_\_\_  y-intercept: \_\_\_\_\_ |