**Review for Quadratics Test Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**All work must be shown in order to receive any credit.**

\_\_\_\_ 1. The related graph of a quadratic equation is shown below. Use the graph to determine the solutions of the equation.



|  |  |  |  |
| --- | --- | --- | --- |
| a. |  | c. | 3, 2 |
| b. | 0,  | d. | 0, 2 |

\_\_\_\_ 2. Identify the quadratic function graphed below.



|  |  |  |  |
| --- | --- | --- | --- |
| a. |  | c. |  |
| b. |  | d. |  |
| b. |  | d. |  |

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 3. Write a quadratic equation with 4 and 7 as its roots. Write the equation in the form

*ax*2   *bx  c * 0, where *a*, *b*, and *c* are integers.

 4. Lina and Kristin are solving . Who is correct? Explain your reasoning.

|  |  |
| --- | --- |
| Lina | Kristen |
|  |  |

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 5. **PHYSICS** The height *h* (in feet) of a certain rocket*t* seconds after it leaves the ground is modeled by

 *h*(*t*)  16*t*2  64*t * 12. Write the function in vertex form and find the maximum height reached by the rocket.

 6. The path of the water from a sprinkler is modeled by the quadratic function , where *h(d)* is the height of the water, in feet, at a distance *d* feet from the jet. Find how far from the sprinkler the water hits the ground.



Opens up/down: \_\_\_\_\_\_\_\_\_\_ Opens up/down: \_\_\_\_\_\_\_\_\_\_

y-intercept: \_\_\_\_\_\_\_\_\_\_ y-intercept: \_\_\_\_\_\_\_\_\_\_

axis of symmetry: \_\_\_\_\_\_\_\_\_\_ axis of symmetry: \_\_\_\_\_\_\_\_\_\_

vertex: \_\_\_\_\_\_\_\_\_\_(max/min?) vertex: \_\_\_\_\_\_\_\_\_\_(max/min?)

domain and range: \_\_\_\_\_\_\_\_\_\_ domain and range: \_\_\_\_\_\_\_\_\_\_

zeros: \_\_\_\_\_\_\_\_\_\_ zeros: \_\_\_\_\_\_\_\_\_\_









