Honors Math 2 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Quadratics Test 2 Review Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Block\_\_\_\_

Solve the following quadratics by factoring.

|  |  |
| --- | --- |
| 1.   | 2.   |
| 3.  | 4.   |

Solve by completing the square. Solve using the quadratic formula.

|  |  |
| --- | --- |
| 5.   | 6.   |

|  |  |
| --- | --- |
| 7. Solve by Completing the Square.   | 8. Solve by Quadratic Formula. |

For #’s 9 & 10 YOU MAY USE A CALCULATOR

9. Find the characteristics of each function and then use this information to produce the graph.

y = x2 + 6x – 5

Axis of Symmetry: \_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x-intercepts:\_\_\_\_\_\_\_\_\_\_\_\_

y-intercepts: \_\_\_\_\_\_\_\_\_\_\_

Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Interval of Increasing: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Interval of decreasing: \_\_\_\_\_\_\_\_\_\_\_\_\_\_



10. y = -2 (x – 1)2 + 7

Axis of Symmetry: \_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x-intercepts:\_\_\_\_\_\_\_\_\_\_\_\_

y-intercepts: \_\_\_\_\_\_\_\_\_\_\_

Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Interval of Increasing: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Interval of decreasing: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Given the function: y = x2 – 2x – 8 answer the following questions. (COMPLETE WITHOUT CALCULATOR)

11. Graph Find the following:

|  |
| --- |
| Convert to Vertex Form |
| Zeros |
| Y-Intercept |
| Axis of Symmetry |
| Vertex |
| Min or Max and @what value? |
| Domain |
|  Range |
|  Interval of Increasing |
| Interval of Decreasing |

|  |  |
| --- | --- |
| 12. Identify the transformations of each function from the parent function: y = x2. (COMPLETE WITHOUT CALCULATOR)1. y = (x + 7)2 – 3
2. y = -4(x – 5)2
3. y = $\frac{1}{4}$x2 + 6
 | 13. Write an equation in vertex form, formed from y = x2  using the given transformations:1. Shifted left 5 and up 3.
2. Reflected and then right 2.
3. Vertical stretch of 3, shifted left 2 and down 1.
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