Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_\_

**SM 2**

 **7.2 Graphing Quadratic** **Functions: Vertex and Axis of Symmetry**

**State the vertex and graph each parabola. Clearly mark the vertex and four other points on the graph.**

1.  Vertex: \_\_\_\_\_\_\_\_ 2.  Vertex: \_\_\_\_\_\_\_\_

 Form of the equation: \_\_\_\_\_\_\_\_\_\_\_\_\_ Form of the equation: \_\_\_\_\_\_\_\_\_\_\_\_\_

 $a=\\_\\_\\_\\_\\_\\_\\_$ $b=\\_\\_\\_\\_\\_\\_\\_$ $a=\\_\\_\\_\\_\\_\\_\\_\\_$ $h=\\_\\_\\_\\_\\_\\_\\_\\_$ $k=\\_\\_\\_\\_\\_\\_\\_\\_\\_$

|  |  |  |
| --- | --- | --- |
|  | ***x*** | ***y*** |
|  |  |  |
|  |  |  |
| Vertex |  |  |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
|  | ***x*** | ***y*** |
|  |  |  |
|  |  |  |
| Vertex |  |  |
|  |  |  |
|  |  |  |

3.  Vertex: \_\_\_\_\_\_\_\_ 4.  Vertex: \_\_\_\_\_\_\_\_

 Form of the equation: \_\_\_\_\_\_\_\_\_\_\_\_\_ Form of the equation: \_\_\_\_\_\_\_\_\_\_\_\_\_

 $a=\\_\\_\\_\\_\\_\\_\\_$ $b=\\_\\_\\_\\_\\_\\_\\_$ $a=\\_\\_\\_\\_\\_\\_\\_\\_$ $h=\\_\\_\\_\\_\\_\\_\\_\\_$ $k=\\_\\_\\_\\_\\_\\_\\_\\_\\_$



|  |  |  |
| --- | --- | --- |
|  | ***x*** | ***y*** |
|  |  |  |
|  |  |  |
| Vertex |  |  |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
|  | ***x*** | ***y*** |
|  |  |  |
|  |  |  |
| Vertex |  |  |
|  |  |  |
|  |  |  |

5.  Vertex: \_\_\_\_\_\_\_\_ 6.  Vertex:\_\_\_\_\_\_\_\_

 Form of the equation: \_\_\_\_\_\_\_\_\_\_\_\_\_ Form of the equation: \_\_\_\_\_\_\_\_\_\_\_\_\_

 $a=\\_\\_\\_\\_\\_\\_\\_$ $b=\\_\\_\\_\\_\\_\\_\\_$ $a=\\_\\_\\_\\_\\_\\_\\_\\_$ $h=\\_\\_\\_\\_\\_\\_\\_\\_$ $k=\\_\\_\\_\\_\\_\\_\\_\\_\\_$



|  |  |  |
| --- | --- | --- |
|  | ***x*** | ***y*** |
|  |  |  |
|  |  |  |
| Vertex |  |  |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
|  | ***x*** | ***y*** |
|  |  |  |
|  |  |  |
| Vertex |  |  |
|  |  |  |
|  |  |  |

**Fill in the requested information for each function. Draw the graph. You need AT LEAST 5 POINTS!**

7. 

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

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

 Direction of Opening: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Is the vertex a maximum or a minimum? \_\_\_\_\_\_\_\_\_\_\_\_\_

 Maximum or minimum value: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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

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

8. 

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

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

 Direction of Opening: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Is the vertex a maximum or a minimum? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Maximum or minimum value: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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

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

9. 

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

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

 Direction of Opening: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Is the vertex a maximum or a minimum? \_\_\_\_\_\_\_\_\_\_\_\_\_

 Maximum or minimum value: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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

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

10. 

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

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

 Direction of Opening: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Is the vertex a maximum or a minimum? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Maximum or minimum value: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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

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