Response Sheet: Vertex

 Minimum

 Maximum

 Vertex

 Vertex formula

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

Determine the vertex and graph the function appropriately.

y = x2 – 4x + 3

a =

b =

c =

x = -b

 2a

|  |  |  |  |
| --- | --- | --- | --- |
| x | y = x2 – 4x + 3 | y | (x,y) |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

y = -2x2 + 12x - 1

a =

b =

c =

x = -b

 2a

|  |  |  |  |
| --- | --- | --- | --- |
| x | y = -2x2 + 12x - 1 | y | (x,y) |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1 What is the turning point, or vertex, of the parabola whose equation is

 y = 3x2 +6x −1?

1) (1,8)

2) (−1,−4)

3) (−3,8)

4) (3,44)

 2 What are the coordinates of the turning point of the parabola whose equation is y = −x2 +4x +1?

1) (−2,−11)

2) (−2,−3)

3) (2,5)

4) (2,13)

 3 What is the minimum point of the graph of the equation y = 2x2 +8x +9?

1) (2,33)

2) (2,17)

3) (−2,−15)

4) (−2,1)