

Name: _____ Date: _____

1. Graph the function represented in the table.

x	$f(x) = x^2 + 2x - 3$
-4	5
-3	0
-2	-3
-1	-4
0	-3
1	0
2	5
3	12
4	21

2. Graph the function represented in the table.

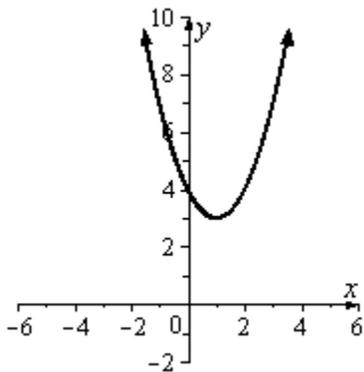
x	$f(x) = x^2 - 6x + 8$
-4	48
-3	35
-2	24
-1	15
0	8
1	3
2	0
3	-1
4	0

3. Using the table, determine $f(-5)$.

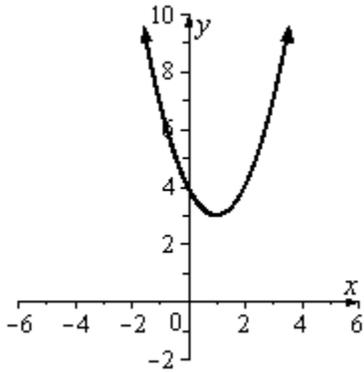
x	$f(x) = x^2 + 2x - 8$
-4	0
-3	-5
-2	-8
-1	-9
0	-8
1	-5
2	0
3	7
4	16

4. Find the x -intercepts of the parabola: $y = 3x^2 - 192$

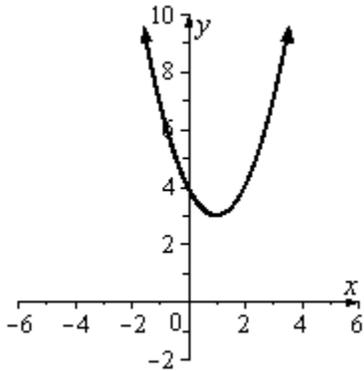
5. Using the graph, find the y -intercept point.



6. Using the graph, find the equation for the axis of symmetry.



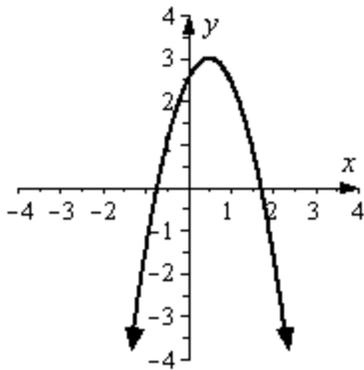
7. Using the graph, find the vertex.



8. Find the minimum or maximum of the quadratic function:

$$y = x^2 - 6x + 7$$

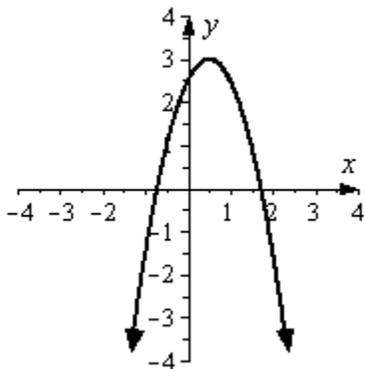
9. Using the graph, find the equation for the axis of symmetry.



10. Find the vertex and axis of symmetry, and then graph the parabola given by:

$$y = x^2 - 3x + 2$$

11. Using the graph, find the vertex.



12. Find the minimum or maximum of the quadratic function:

$$y = 3x^2 + 6x$$

13. Find the x -intercepts of the parabola: $y = x^2 - 2x - 15$

14. Using a table and graph, find the equation for the axis of symmetry.

$$f(x) = -x^2 + 8x - 11$$

15. Find the vertex and axis of symmetry, and then graph the parabola given by:

$$y = x^2 - 2x - 4$$

16. Using a table and graph, find the vertex.

$$f(x) = -x^2 + 4x + 1$$

17. Find the minimum or maximum of the quadratic function:

$$y = -3x^2 + 6x - 5$$

18. Find the x -intercepts of the parabola: $y = 8x^2 + 13x - 6$

19. Using a table and graph, find the equation for the axis of symmetry.

$$f(x) = x^2 - 3x + 5$$

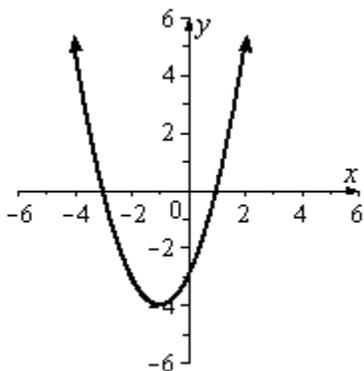
20. The vertex of a parabola is $(-5, -9)$ and opens upward. What is the equation of the axis of symmetry of the parabola?

21. Find the minimum or maximum of the quadratic function:

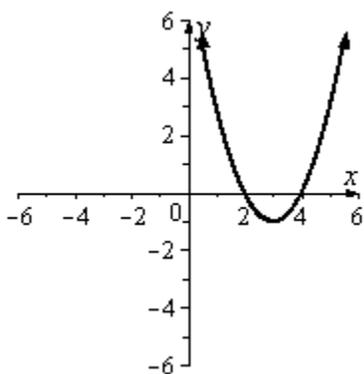
$$y = -4x^2 + 8x - 2$$

Answer Key

1.



2.



3. 7

4. (8,0), (-8,0)

5. (0, 4)

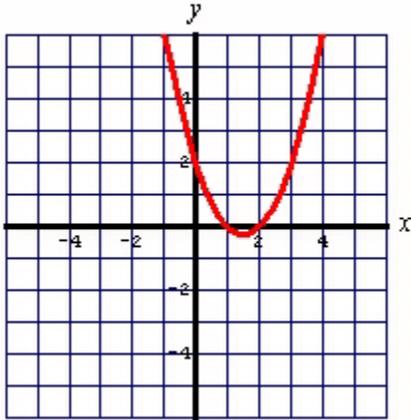
6. $x = 1$

7. (1, 3)

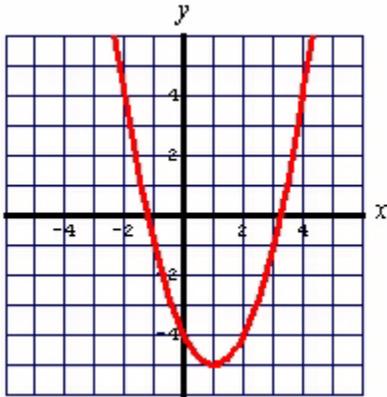
8. Minimum: -2

9. $x = \frac{1}{2}$

10. Vertex: $(\frac{3}{2}, \frac{-1}{4})$; Axis of symmetry: $x = \frac{3}{2}$



11. $(\frac{1}{2}, 3)$
 12. Minimum: -3
 13. $(-3, 0), (5, 0)$
 14. $x = 4$
 15. Vertex: $(1, -5)$; Axis of symmetry: $x = 1$



16. $(2, 5)$
 17. Maximum: -2
 18. $(-2, 0), (\frac{3}{8}, 0)$
 19. $x = 1.5$
 20. $x = -5$
 21. Maximum: 2