

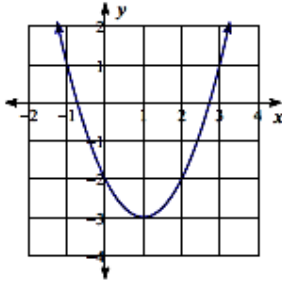
**Unit 8 L1-7 Quiz Review**

Name \_\_\_\_\_ Per \_\_\_\_\_

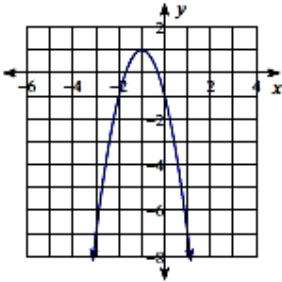
Select the correct graph for each of the following equations.

1)  $f(x) = (x - 1)^2 - 3$

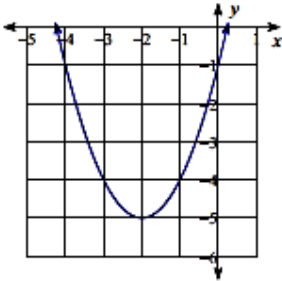
A)



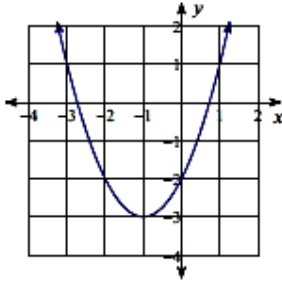
B)



C)

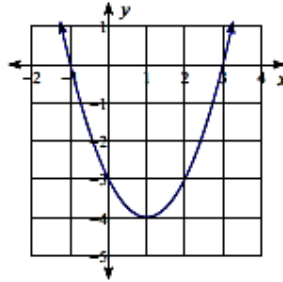


D)

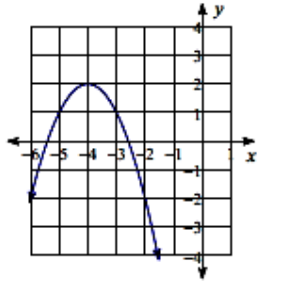


2)  $f(x) = -(x + 4)^2 + 2$

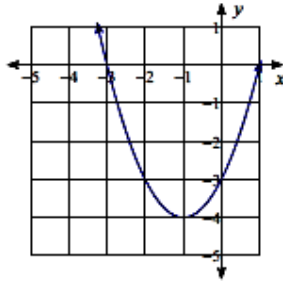
A)



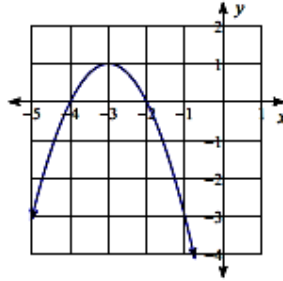
B)



C)



D)



3. What is the domain of the graph in #1?	4. What is the range of the graph in #2?
5. On which interval is the graph in #1 increasing?	6. On which interval is the graph in #2 decreasing?
7. What is the axis of symmetry in #1?	8. What is the vertex in #2?

Given the quadratic function shown in the table to the right, answer the following.

x	f(x)
1	6
2	3
3	2
4	3
5	6
6	11
7	18

9. Vertex \_\_\_\_\_

10. Axis of Symmetry \_\_\_\_\_

11.  $f(2) =$  \_\_\_\_\_

12.  $f(5) =$  \_\_\_\_\_

13.  $f(0) =$  \_\_\_\_\_

14. Is this parabola concave up or concave down?

15. Based on the end behavior, would the leading coefficient be positive or negative?

Identify the vertex and the axis of symmetry for each of the following.

16. $y = x^2 - 2.3$	17. $y = \left(x + \frac{1}{2}\right)^2 + 3$	18. $y = -(x - 5)^2$
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For each of the following, state the y-intercept, axis of symmetry, and whether it is concave up or down.

19. $y = -2x^2 + 12x - 9$	20. $y = x^2 + 10x + 21$
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For each of the following, convert the equation from vertex form to standard form.

21. $y = (x+4)^2 - 9$	22. $y = -(x-1)^2 - 4$
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**Answer Key**

1. a	2. b	3. $(-\infty, \infty)$	4. $(-\infty, 2]$
5. $(1, \infty)$	6. $(-4, \infty)$	7. $x = 1$	8. $(-4, 2)$
9. $(3, 2)$	10. $x = 3$	11. 3	12. 6
13. 11	14. concave up	15. positive	16. $(0, -2.3)$ $x = 0$
17. $\left(-\frac{1}{2}, 3\right)$ $x = -\frac{1}{2}$	18. $(5, 0)$ $x = 5$	19. y-int: -9 Axis of symm: $x = 3$ Concave down	20. y-int: 21 Axis of symm: $x = -5$ Concave up
21. $y = x^2 + 8x + 7$	22. $y = -x^2 + 2x - 5$		