Name _____ Date _____ Class_____

LESSON 19-3

Interpreting Vertex Form and Standard Form

Practice and Problem Solving: A/B

Determine if each function is a quadratic function.

1. $y = 2x^2 - 3x + 5$ _____

2. $y = 2x - 4$ _____

3. $y = 2^x + 3x - 4$ _____

Write each quadratic function in standard form and write the equation for the line of symmetry.

4. $y = x + 2 + x^2$ _____

5. $y = -1 + 2x - x^2$ _____

6. $y = 2x - 5x^2 - 2$ _____

Change the vertex form to standard quadratic form.

7. $y = 2(x + 3)^2 - 6$ _____

8. $y = 3(x - 5)^2 + 4$ _____

Use the values in the table to write a quadratic equation in vertex form.

9. The vertex of the function is (1, –3).

x	*y*
–1	17
0	2
1	–3
2	2
3	17

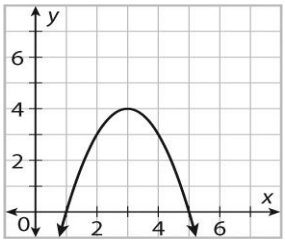
_____

10. The vertex of the function is (–3, –2).

x	*y*
–1	14
–2	2
–3	–2
–4	2
–5	14

_____

11. The graph of a function in the form $f(x) = a(x - h)^2 + k$ is shown. Use the graph to find an equation for $f(x)$.



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