Integrated Math 2 Worksheet 6.3b Name: _____

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

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

Identify the vertex of each quadratic function.

4. $y = -2x^2 - 4x - 5$
5. $y = x^2 - 6x + 1$
6. $y = \frac{1}{2}x^2 + 8x - 9$

Change from vertex form to standard form.

7. $y = 2(x + 3)^2 - 6$
8. $y = 3(x - 5)^2 + 4$

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

9.

x	y
–1	17
0	2
1	–3
2	2
3	17

10.

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 $f(x)$.