

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, then write the function in standard form.

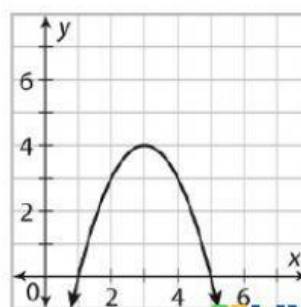
9. The vertex of the function is $(1, -3)$.

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

x	y
-1	17
0	2
1	-3
2	2
3	17

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 $f(x)$.



1. Quadratic

2. Not quadratic

3. Not quadratic

4. $y = x^2 + x + 2$, $x = -\frac{1}{2}$

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

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

7. $y = 2x^2 + 12x + 12$

8. $y = 3x^2 - 30x + 79$

9. $y = 5(x - 1)^2 - 3$

$$y = 5x^2 - 10x + 2$$

10. $y = 4(x + 3)^2 - 2$

$$y = 4x^2 + 24x + 34$$

11. $y = -(x - 3)^2 + 4$

