Algebra 1
Name_____ ID: 1

Assignment

Date_____ Period____

Write in standard form.

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

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

3) $f(x) = 4(x + 3)^2 + 1$

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

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

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

Write in vertex form.

7) $f(x) = x^2 - 6x + 12$

8) $f(x) = x^2 + 6x + 6$
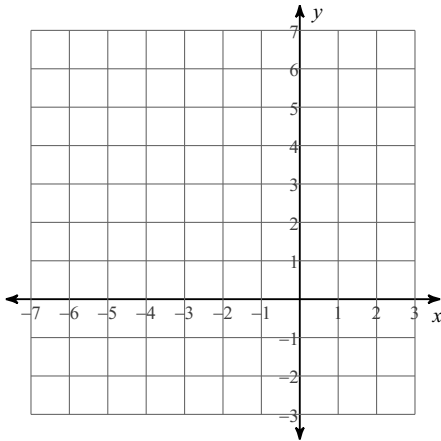
9) $f(x) = -x^2 + 8x - 12$

10) $f(x) = 2x^2 + 4x + 4$
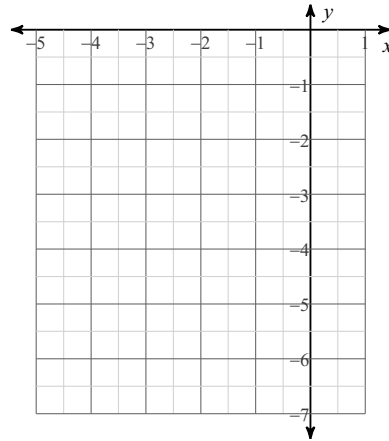
11) $f(x) = -x^2 - 2x - 3$

12) $f(x) = -x^2 - 2x - 5$

Sketch the graph of each function. Write the equation in standard form. Identify the axis of symmetry and vertex.
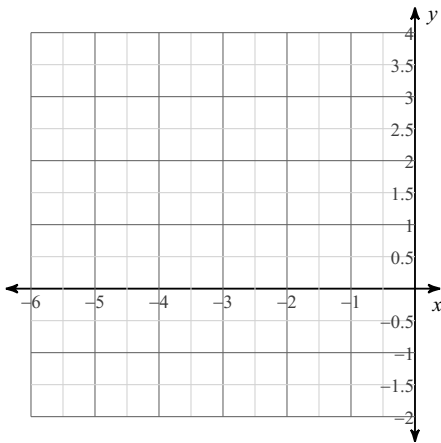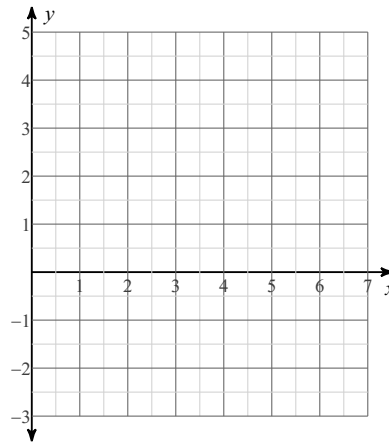
13) $y = 2x^2 + 4x$

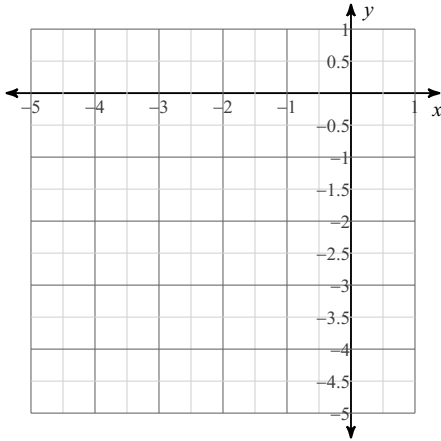14) $y = -x^2 - 4x - 6$

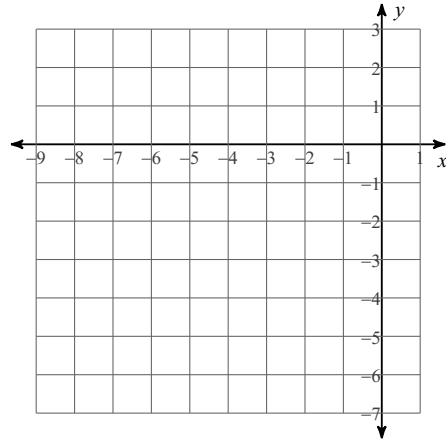15) $y = -x^2 - 6x - 6$

16) $y = -x^2 + 8x - 13$

Sketch the graph of each function. Write the equation in vertex form. Identify the axis of symmetry and vertex.
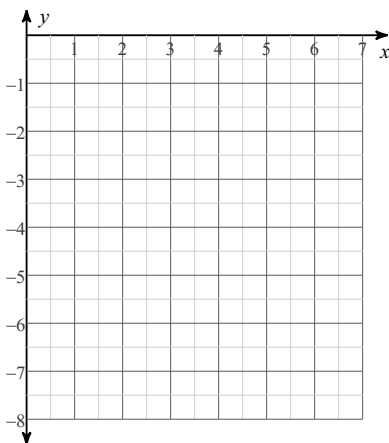
17) $f(x) = x^2 + 6x + 5$

18) $f(x) = -2x^2 - 12x - 16$

19) $f(x) = -x^2 + 8x - 19$

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