Algebra 1

Name_____ ID: 1

Writing and Converting Vertex; Standard

Date_____ Period_____

Use the information provided to write the vertex form equation of each parabola.

1) $y = x^2 - 6x + 19$

2) $y = -x^2 + 2x - 1$

3) $y = -x^2 - 20x - 96$

4) $y = -x^2 + 14x - 49$

5) $y = 2x^2 + 20x + 57$

6) $y = x^2 - 14x + 45$

7) $y = -4x^2 - 80x - 407$

8) $y = x^2 + 16x + 73$

9) $y = -x^2 + 8x - 22$

10) $y = x^2 - 12x + 33$

Use the information provided to write the standard form equation of each parabola.

11) $y = (x + 3)^2 - 7$

12) $y = x^2 - 3$

13) $y = 2(x + 8)^2 - 4$

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

15) $y = 3(x + 8)^2 + 7$

16) $y = (x - 3)^2 - 9$

17) $y = -2(x + 10)^2 - 1$

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

19) $y = (x + 10)^2 + 3$

20) $y = (x - 4)^2 - 7$

Answers to Writing and Converting Vertex; Standard (ID: 1)

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

2) $y = -(x - 1)^2$

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

4) $y = -(x - 7)^2$

5) $y = 2(x + 5)^2 + 7$

6) $y = (x - 7)^2 - 4$

7) $y = -4(x + 10)^2 - 7$

8) $y = (x + 8)^2 + 9$

9) $y = -(x - 4)^2 - 6$

10) $y = (x - 6)^2 - 3$

11) $y = x^2 + 6x + 2$

12) $y = x^2 - 3$

13) $y = 2x^2 + 32x + 124$

14) $y = -3x^2 + 54x - 248$

15) $y = 3x^2 + 48x + 199$

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

17) $y = -2x^2 - 40x - 201$

18) $y = -x^2 - 20x - 97$

19) $y = x^2 + 20x + 103$

20) $y = x^2 - 8x + 9$