

## Graphing Quadratic Functions Practice Worksheet

Put the following into vertex form:

Write each function in vertex form.

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

20.  $y = 2x^2 + 8x + 3$

22.  $y = -x^2 + 4x + 4$

23.  $y = x^2 - 4x - 4$

25.  $y = 2x^2 - 6$

26.  $y = -3x^2 - x - 8$

28.  $y = x^2 + 8x + 3$

29.  $y = 2x^2 + 6x + 10$

Change to standard form.

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

32.  $y = -\frac{1}{3}(x + 6)^2 + 5$

34.  $y = \frac{2}{3}(x + 4)^2 - 3$

35.  $y = (x - 1)^2 + 2$

37.  $y = 4(x - 5)^2 + 1$

38.  $y = -2(x + 5)^2 - 3$

19)  $y = (x+2)^2 - 4$

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

20)  $y = 2(x+2)^2 - 5$

26)  $y = -3\left(x + \frac{1}{6}\right)^2 - \frac{95}{12}$

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

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

23)  $y = (x-2)^2 - 8$

29)  $y = 2\left(x + \frac{3}{2}\right)^2 + \frac{11}{2}$

31)  $y = 3x^2 - 12x + 8$

35)  $y = x^2 - 2x + 3$

32)  $y = -\frac{x^2}{3} - 4x - 7$

37)  $y = 4x^2 - 40x + 101$

34)  $y = \frac{2x^2}{3} + \frac{16x}{3} + \frac{23}{3}$

38)  $y = -2x^2 - 20x - 53$