

Chapter 7 Section 3 Worksheet

Determine if the parabola whose equation is given opens upward or downward.

1) $y = x^2 + 3x - 9$

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

3) $y = 3x^2 - 2x - 1$

4) $y = -4x^2 + 3x - 8$

Find the x-intercepts for the parabola whose equation is given. If the x-intercepts are irrational, round your answers to the nearest tenth.

5) $y = -x^2 + 17x - 72$

6) $y = 2x^2 - 7x + 5$

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

8) $y = x^2 + 4x - 7$

9) $y = x^2 - 5x + 1$

Find the y-intercepts for the parabola whose equation is given. If the y-intercepts are irrational, round your answers to the nearest tenth.

10) $y = x^2 - 5$

11) $y = x^2 + 19x$

12) $y = -x^2 + 19x - 90$

13) $y = 2x^2 - 7x + 3$

14) $y = 2x^2 - 24x + 64$

15) $y = x^2 + 4x - 7$

16) $y = x^2 - 5x + 1$

Find the vertex for the parabola whose equation is given.

17) $y = x^2 + 10x + 2$

18) $y = -x^2 + 8x + 7$

19) $y = -4x^2 - 8x + 1$

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

21) $y = x^2 - 7x$