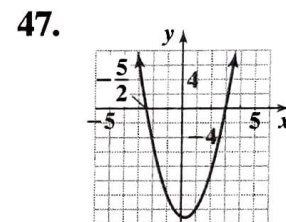
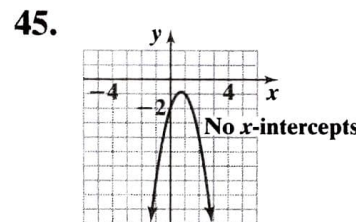
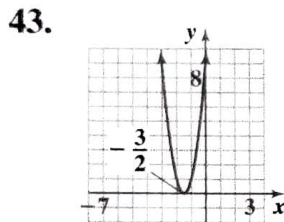
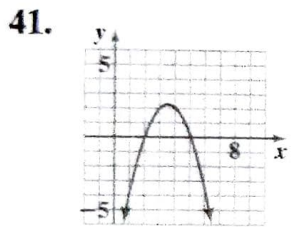
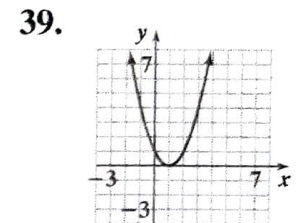
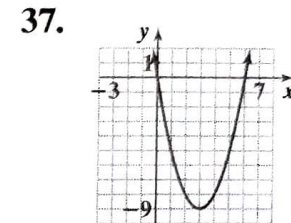
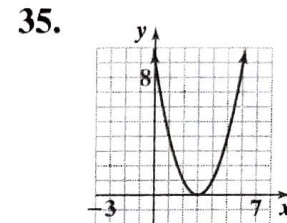
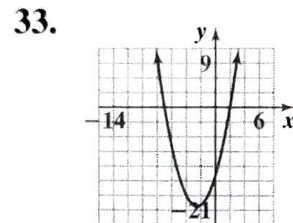
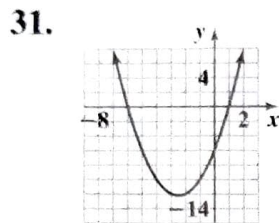
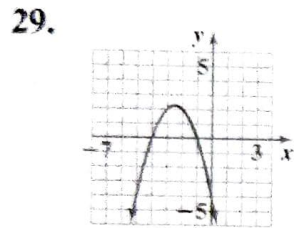
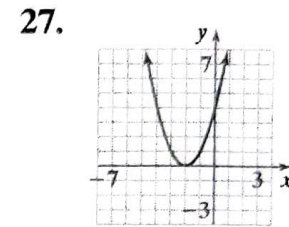
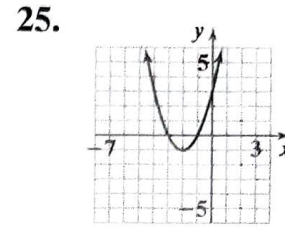
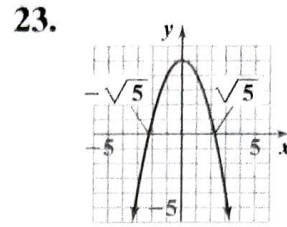
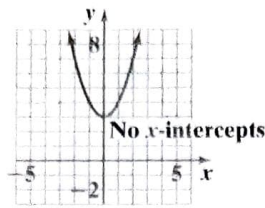


Exercise Set 10.4 1. Parabola 3. Downward 5. x -coordinate 7. Axis of symmetry 9. $x = -1, (-1, -8)$, upward

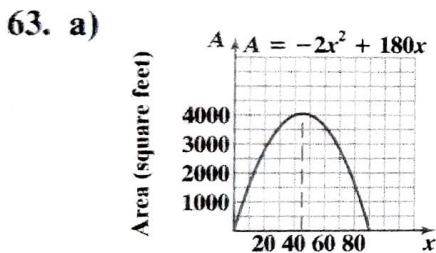
11. $x = -1, (-1, -1)$, upward 13. $x = \frac{1}{3}, (\frac{1}{3}, \frac{4}{3})$, downward 15. $x = \frac{3}{2}, (\frac{3}{2}, -\frac{7}{4})$, downward 17. $x = -\frac{3}{4}, (-\frac{3}{4}, \frac{7}{8})$, upward

19. $x = \frac{1}{2}, (\frac{1}{2}, \frac{33}{4})$, downward 21.

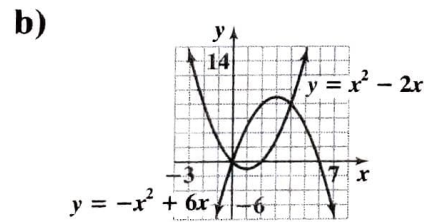
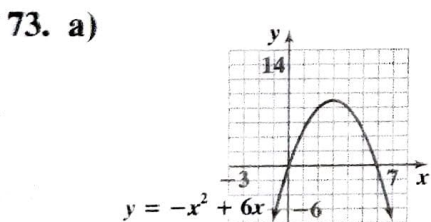


57. None; the vertex is below the x -axis and the parabola opens downward

59. One; the vertex of the parabola is on the x -axis 61. a) ≈ 255 feet b) 4 seconds c) 8 seconds d) ≈ 190 feet, ≈ 240 feet



b) 45 feet c) 4050 square feet



c) (0, 0), (4, 8) 75. $\frac{-x^2 + 4x - 14}{(x + 3)(x - 4)}$ 76. $\frac{27}{7}$ 77. (6, -5) 78. 7