

page 296 # 1-40.

1. $y = \frac{2}{9}x^2 - \frac{4}{3}x$

15. $-3 + 7i$

2. $y = \frac{1}{3}x^2$

16. $2 - i$

3. $y = 6(x-1)^2 + 5$

17. $\sqrt{53}$

4. $x = 0$ (0, -7)

18. 8

5. $x = -1$ (-1, 5)

19. $4\sqrt{5}$

6. $x = 2.5$ (2.5, 3.25)

20. 5

7. $x = 0$ (0, -8)

21. $2\sqrt{3}$

8. $4i$

22. $\sqrt{3}$

9. $-2 + 12i$

23. in the coordinate plane graph (x, y) on x - & y -axis; in the complex number plane, graph the real part on the horizontal axis and imaginary part on the vertical axis.

10. $9 - 10i$

11. $31 + 14i$

12. $-9 + i$

13. $62 - 54i$

14. $h = 144.5 \text{ m}$
 $t = 4.25 \text{ s}$

$$24. x = \pm 5$$

$$25. x = -8 \quad x = 3$$

$$26. x = -9 \quad x = 1$$

$$27. x = \frac{7}{2} \pm \frac{3\sqrt{5}}{2}$$

$$28. x = 0, \quad x = \frac{3}{2}$$

$$29. \frac{-1}{2} \pm \frac{i\sqrt{3}}{2}$$

$$30. \frac{-1}{10} \pm \frac{i\sqrt{39}}{10}$$

$$31. \frac{-1}{3} \pm \frac{\sqrt{22}}{3}$$

$$32. \frac{-3}{2} \pm \frac{i\sqrt{15}}{2}$$

$$33. y = (x-3)^2 - 4$$

$$34. y = -(x-4)^2 + 6$$

$$35. y = 2\left(x - \frac{3}{4}\right)^2 - \frac{17}{8}$$

$$36. y = -\frac{1}{2}(x-4)^2 - 1$$

$$37. d = 64; \quad 2 \text{ real}$$

$$38. d = -35; \quad 2 \text{ imag.}$$

$$39. d = 24; \quad 2 \text{ real}$$

$$40. d = 0; \quad 1 \text{ real}$$