Answer Key

Practice A

1. $3x^2 - 4x + 3 = 0$; $a = 3$, $b = -4$, $c = 3$

2. $x^2 - 3x + 2 = 0$; $a = 1$, $b = -3$, $c = 2$

3. $3x^2 + 3x - 4 = 0$; $a = 3$, $b = 3$, $c = -4$

4. $2x^2 + 4x + 5 = 0$; $a = 2$, $b = 4$, $c = 5$

5. $x^2 - 9x + 2 = 0$; $a = 1$, $b = -9$, $c = 2$

6. $6x^2 - 3 = 0$; $a = 6$, $b = 0$, $c = -3$

7. -11 **8.** 0 **9.** 28 **10.** 21 **11.** -24

12. 0 **13.** 16; 2 **14.** 17; 2 **15.** -11; 0

16. 1; 2 **17.** -31; 0 **18.** 41; 2 **19.** 0; 1

20. 0; 1 **21.** -11; 0 **22.** -12; 0 **23.** 84; 2

24. 0; 1 **25.** $\frac{1 - \sqrt{5}}{2}, \frac{1 + \sqrt{5}}{2}$

26. $\frac{-3 - \sqrt{13}}{2}, \frac{-3 + \sqrt{13}}{2}$

27. $3 - \sqrt{7}, 3 + \sqrt{7}$ **28.** 0, 7 **29.** -3, 0

30. $-i\sqrt{6}, i\sqrt{6}$ **31.** -6, 6

32. $\frac{-3 - i\sqrt{11}}{2}, \frac{-3 + i\sqrt{11}}{2}$

33. $\frac{-1 - i\sqrt{55}}{2}, \frac{-1 + i\sqrt{55}}{2}$

34. $x^2 - 2x - 4 = 0$; $1 - \sqrt{5}, 1 + \sqrt{5}$

35. $x^2 + 2x + 1 = 0$; -1

36. $x^2 - 2x - 15 = 0$; 3, -5

37. $x^2 - 6x + 11 = 0$; $3 - i\sqrt{2}, 3 + i\sqrt{2}$

38. $x^2 - x + \frac{1}{4} = 0; \frac{1}{2}$

39. $x^2 + 3x = 0$; -3, 0

40. 3.28 in.

41. 5.38 in.