

1.

$$\text{Solutions: } \sqrt{7}, -\sqrt{7}$$

$$\text{x - intercepts: } (\sqrt{7}, 0), (-\sqrt{7}, 0)$$

2. 1, 13

3. 8, 10

4. problem not included in set

5. 3, -5

6.

$$\text{Solutions: } \frac{-7 + \sqrt{85}}{2}, \frac{-7 - \sqrt{85}}{2}$$

$$\text{x - intercepts: } \left(\frac{-7 + \sqrt{85}}{2}, 0 \right), \left(\frac{-7 - \sqrt{85}}{2}, 0 \right)$$

7. 0.6

$$8. -8 + 2\sqrt{15}, -8 - 2\sqrt{15}$$

$$9. \frac{-3 + \sqrt{21}}{2}, \frac{-3 - \sqrt{21}}{2}$$

10.

$$\text{Solutions: } \frac{7 + \sqrt{109}}{6}, \frac{7 - \sqrt{109}}{6}$$

$$\text{x - intercepts: } \left(\frac{7 + \sqrt{109}}{6}, 0 \right), \left(\frac{7 - \sqrt{109}}{6}, 0 \right)$$

11. 1, 2

12. 24, -10

$$13. \frac{-5 + \sqrt{53}}{2}, \frac{-5 - \sqrt{53}}{2}$$

14. 4

15. B
16. 24, 45
17. Speed on the first part of the trip: 24.70 mph
Speed on the second part of the trip: 19.70 mph
18. A
19. A
20. C
21. B
22. $x^2 + 12x + 35$
23. $x^2 + 18x + 81$
24. $x^2 - 8x + 16$
25. $x^2 - 4x\sqrt{10} + 50$
26. $\sqrt{10 + \sqrt{102}}, -\sqrt{10 + \sqrt{102}}, \sqrt{10 - \sqrt{102}}, -\sqrt{10 - \sqrt{102}}$