

Answer Key

Practice C

1. 13 2. 25 3. 169 4. 24 5. -31

6. -24 7. $-\frac{5}{2} - \frac{\sqrt{37}}{2}, -\frac{5}{2} + \frac{\sqrt{37}}{2}$

8. $-\frac{3}{4} - \frac{\sqrt{17}}{4}, -\frac{3}{4} + \frac{\sqrt{17}}{4}$

9. $-6 - 3\sqrt{3}, -6 + 3\sqrt{3}$ 10. $\frac{1}{2}, 1$

11. $\frac{5}{2} - \frac{\sqrt{37}}{2}, \frac{5}{2} + \frac{\sqrt{37}}{2}$

12. $-5 - \sqrt{19}, -5 + \sqrt{19}$

13. $-\frac{1}{10} - \frac{\sqrt{19}}{10}i, -\frac{1}{10} + \frac{\sqrt{19}}{10}i$ 14. -20

15. -19.11, -1.39 16. -0.71, 0.51

17. $0.08 - 0.53i, 0.08 + 0.53i$

18. $-\frac{1}{2} - \frac{\sqrt{87}}{6}i, -\frac{1}{2} + \frac{\sqrt{87}}{6}i$ 19. -4, 4

20. $-2\sqrt{6}, 2\sqrt{6}$ 21. No solution

In Exercises 22–24, answer may vary. Sample answers are given.

22. 1, 2 23. 1, 2 24. 2, 3

25. Object launched downward

26. $h = -16t^2 + 10t + 100$

27. $h = -16t^2 + 100$

28. $h = -16t^2 - 10t + 100$

29. launched upward: 2.8 s, dropped: 2.5 s,
launched downward: 2.2 s The object launched
downward reaches the ground first.