

Answers for Lesson 9-6 Exercises

- 1.** 5 **2.** no solution **3.** 10 **4.** 2 or -5
5. $\frac{4}{3}$ **6.** $-\frac{5}{2}$ or 4 **7.** $\frac{7}{3}$ **8.** 3
9. -1 **10.** $\frac{2}{9}$ **11.** 10 **12.** 4
13. 2 **14.** -1 or 2 **15.** -1 or 12 **16.** $-\frac{1}{12}$
17. about -1.45 or 1.65
18. 1 **19.** -3,-2 **20.** -9 **21.** 1
22. Carlos: 32 mi/h, Paul: 12 mi/h
23. passenger train: 112 mi/h, freight train: 92 mi/h
24. $2\frac{2}{3}$ h **25.** $1\frac{5}{7}$ h
26. $E = \frac{mV^2}{2}$ **27.** $E = mc^2$
28. $F = ma$ **29.** $c = \pm\sqrt{a^2 - b^2}$
30. $T = \pm 2\pi\sqrt{\frac{\ell}{g}}$ **31.** $B = \pm\frac{1}{r}\sqrt{\frac{2Vm}{q}}$
32. $2\frac{2}{5}$ days **33.** D
34. a. $c(x) = \frac{5.50x + 60}{x}$
b. 14 students
35. a. $L = \frac{24(R-r)}{T}$
b. 32 in., about 28.24 in., about 25.26 in.
36. a. \$1000
b. $\frac{15,000}{24 + x}(1.60)$
c. $1000 - \frac{15,000}{24 + x}(1.60)$
d. 30 mi/gal
37. Check students' work.

Answers for Lesson 9-6 Exercises (cont.)

- 38. a.** about 2037
b. Check students' work.
- 39.** 3 **40.** no solution **41.** no solution
- 42.** 30 **43.** 5 **44.** $\frac{38}{21}$
- 45.** no solution **46.** -4 **47.** 21
- 48.** -4 **49.** no solution **50.** 6
- 51.** $1, -\frac{2}{3}$ **52.** -1 **53.** $x \approx 4.5$ ft
- 54.** Check students' work.
- 55. a.** $t = \frac{d}{s}$
b. $\frac{35}{18}$ h
c. $\frac{d}{t} + x$
d. $\frac{700}{360} + \frac{700}{360 + x} = 3.5$; 90 mi/h
- 56. a-c.** Check students' work. **57.** about 44.44 mi/h
- 58.** 5 attendants