

Algebra 1 Workbook – Chapter 3

Lesson 3.1

Practice Level B

1. $x = 9$ 2. $n = 26$ 3. $w = -38$ 4. $y = -18$
5. $a = 7$ 6. $m = -11$ 7. $c = 4.2$ 8. $z = 5.5$
9. $p = -7.7$ 10. $x = 6$ 11. $b = -11$
12. $m = -14$ 13. $y = 13$ 14. $n = 108$
15. $a = -16$ 16. $y = 34$ 17. $a = -2$
18. $m = 5$ 19. $10x = 70$; $x = 7$ in.
20. $\frac{1}{2}(12x) = 30$; $x = 5$ in. 21. 33.5 km
22. 86 ft 23. 6.7 m/sec 24. 12 h

Lesson 3.2

Practice Level B

1. $n = 7$ 2. $y = 3$ 3. $x = -5$ 4. $c = 2$
5. $m = 2$ 6. $b = 0.4$ 7. $p = 30$ 8. $w = 77$
9. $z = 12$ 10. $y = 2x + 5$; 6 11. $y = 4x + 10$;
-9 12. $y = 6x - 14$; 6 13. $a = 2$ 14. $y = 6$
15. $x = 2$ 16. $x = -4$ 17. $m = -3$ 18. $z = 12$
19. 12 classes 20. 11 subscriptions 21. about 3.7 h 22. a. $y = 15 + 2x$ b. 45.5 min

Lesson 3.3

Practice Level B

1. $x = 4$ 2. $m = -6$ 3. $b = -4$ 4. $p = 3$
5. $x = 3$ 6. $d = 4$ 7. $a = 2$ 8. $a = 3$
9. $x = 36$ 10. $d = -45$ 11. $n = 9$
12. $w = -5$ 13. $z = 3$ 14. $m = -0.5$
15. $n = 3$ 16. $x = 5$ 17. $x = 3$ 18. 5 in.
19. 12 h 20. 5 h 21. a. $y = 4(x + 45) + 3x$ b. about 117 min

Lesson 3.4

Practice Level B

1. $5x + 11 = 4x + 18$
 $x + 11 = 18$ Subtract $4x$ from each side.
 $x = 7$ Subtract 11 from each side.
2. $11p - 4 = 6p + 1$
 $5p - 4 = 1$ Subtract $6p$ from each side.
 $5p = 5$ Add 4 to each side.
 $p = 1$ Divide each side by 5.
3. $-6 = 2(w + 5)$
 $-6 = 2w + 10$ Distribute 2 to $(w + 5)$.
 $-16 = 2w$ Subtract 10 from each side.
 $-8 = w$ Divide each side by 2.

Algebra 1 Workbook – Chapter 3

4. $x = 21$ 5. $n = 3$ 6. no solution 7. $a = -4$ 8. $w = -9$ 9. $y = 11$ 10. $m = 2$
11. $x = 8$ 12. $b = -3$ 13. $d = -1$ 14. $p = -1$ 15. $z = 3$ 16. 48 17. 80 18. 24
19. 5 weeks 20. 8 visits 21. 3 years; 7.6 years

Lesson 3.5

Practice Level B

1. no; 8 to 17 2. yes 3. no; $\frac{11}{36}$ 4. $p = 7$ 5. $x = 14$ 6. $y = 35$ 7. $y = 10$ 8. $m = 26$
9. $b = 20$ 10. $d = 1.6$ 11. $z = 8.75$ 12. $n = 0.8$ 13. $\frac{5}{12} = \frac{x}{48}; x = 20$ 14. $\frac{w}{9} = \frac{7}{36}; w = \frac{7}{4}$
15. $\frac{d}{4} = \frac{32}{56}; d = \frac{16}{7}$ 16. $\frac{22}{50} = \frac{x}{500}; x = 220$ 17. $\frac{10}{45} = \frac{b}{225}; b = 50$ 18. $\frac{n}{18} = \frac{64}{72}; n = 16$
19. a. $\frac{2}{5}$ b. $\frac{3}{2}$ c. $\frac{3}{5}$ 20. a. $\frac{4}{7}$ b. $\frac{8}{19}$
21. 2160 pieces of mail 22. about 357 songs

Lesson 3.6

Practice Level B

1. $55n$ and $11(40)$ 2. $4x$ and $9(1)$ 3. $1.8(3.8)$ and $1.9b$ 4. $7(a + 6)$ and $21(4)$ 5. $9(5x)$ and $30(x + 1)$
6. $2.2(a - 1)$ and $3.3(a - 2)$ 7. $m = 35$ 8. $d = 35$ 9. $x = 30$ 10. $w = 5$
11. $w = 3$ 12. $z = 9$ 13. $a = 10$ 14. $y = -1$ 15. $w = 10$ 16. $c = 12.375$ 17. $a = 3$
18. $n = 5$ 19. 209 ft 20. 85.5 ft 21. 66.5 ft 22. a. 6 b. 12 parts 23. 127.5 ft 24. 605 ft

Lesson 3.7

Practice Level B

1. 20% 2. 20% 3. 12 4. 117 5. 150 6. 600 7. 25% 8. 80% 9. 27 10. 306
11. 60 12. 30 13. 15% 14. 6% 15. 20% 16. 40% 17. 51,428,571.43 mi²
18. 12.5 h 19. a. 10 students b. 125 students c. 365 students 20. a and c

Lesson 3.8

Practice Level B

1. $y = -4x - 10$ 2. $y = 6 - 17x$ 3. $y = 3x + 11$ 4. $y = 4 - x$ 5. $y = 2x - 4$
6. $y = 2 - \frac{1}{2}x$ 7. $y = \frac{5}{7}x - 2$ 8. $y = \frac{4}{9}x + 1$ 9. $y = -8x - 5$ 10. $y = 2x - 1$
11. $y = \frac{3}{5}x - \frac{9}{5}$ 12. $y = 4x - 8$ 13. $R_2 = R - R_1$ 14. $r = \frac{I}{Pt}$ 15. $V = \frac{Q}{C}$
16. $m = \frac{y - b}{x}$ 17. $h = \frac{2A}{b_1 + b_2}$ 18. $d_1 = \frac{2A}{d_2}$ 19. a. $x = \frac{y}{7} - 15$ b. 15 min; 20 min; 30 min
20. $r = \frac{L - S}{L}$; a. 60% b. 35% 21. a. $F = \frac{9}{5}C + 32$ b. about 300°F