

1. $x = 6, y = 3, z = 9$
2. $z = 3, a = 3, x = -3$
3. $x = 8, b = 8, y = 2$
4. $m = 8, x = 2\frac{1}{2}, y = -4$
5. $x = 4, y = 3, z = -9$
6. $a = -10, b = 2, z = 6$
7. $y = 3, x = -5, n = 3$

ANSWERS Algebra p. 74-85 (packet - solving equations)

1. $b. 8n + 9 = 73, n = 8$
2. $c. 5w - 7 = 3w + 19, w = 13$
3. $a. t + 2t = \$225, t = \75
4. $c. \$18a + \$400 = \$886, a = 27$

For problems 5-12, equations may vary.

5. $3n = n + 12, n = 6$
6. $\frac{2}{3}m + \frac{1}{6}m = 25, m = 30$
7. $p + 0.06p = \$360.40, p = \340.00
8. $s + 550(6) = 3s, s = \$150$
9. $4x + 15 = 27, x = 3$
10. $3n + 16 = 5n + 10, n = 3$
11. $3r = r + 4 + 4 + 2, r = 5$
12. $4y = 2y + 24, y = 12$
13. $x = 8 (2x + 6 + 2x + 4x - 8 = 62, \text{ or } 8x = 64)$
14. $x = 16 (x + 3x - 16 + 2x + 10 = 90, \text{ or } 6x = 96)$

1. $x = 6, n = 7, b = 5$
2. $y = 11, a = 11, b = 4$
3. $x = 10, m = 7, y = -2$
4. $y = 30, z = 21, a = 13$

1. $b. 3(n + 1) = 2(n + 4), n = 5$
2. $c. m + (m - \$10) + 2(m - \$10) = \$310, m = \85
3. $4(n + 2) = 3(n + 5), n = 7$
4. $\frac{2}{3}(y - 3) = \frac{1}{3}y, y = 6$
5. $s + (s - \$0.45) + 2(s - \$0.45) = \$9.25, s = \2.65
 Sami owes: \$2.65 (s)
 Ben owes: \$2.20 (s - \$0.45)
 Louis owes: \$4.40 [2(s - \$0.45)]
6. $x + (x + 1) + (x + 2) = 54$
 1st integer: 17 (x)
 2nd integer: 18 (x + 1)
 3rd integer: 19 (x + 2)

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|-------------|--------------|--------------|
| 1. $x = 16$ | 11. $n = 23$ | 21. $r = 3$ |
| 2. $n = 4$ | 12. $y = 17$ | 22. $x = -6$ |
| 3. $r = 72$ | 13. $b = 4$ | 23. $y = 10$ |
| 4. $y = 11$ | 14. $z = 16$ | 24. $n = -2$ |
| 5. $x = 24$ | 15. $y = 4$ | 25. $y = -6$ |
| 6. $n = 24$ | 16. $w = 13$ | 26. $z = 4$ |
| 7. $n = 5$ | 17. $x = 5$ | 27. $x = 44$ |
| 8. $x = 9$ | 18. $n = 7$ | 28. $p = 4$ |
| 9. $y = 30$ | 19. $x = 5$ | 29. $n = 6$ |
| 10. $x = 5$ | 20. $s = 5$ | 30. $x = 14$ |
31. $b. 6m - 4 = 26, m = 5$
 32. $c. n + 8(5) = 2n, n = 40$
 33. $5(x - 1) = 3(x + 9), x = 16$
 34. $4n - 3(n + 2) = 5, n = 11$
 35. $c + 24(5) = 3c, c = 60$
 36. $h + (h - 8) + 2(h - 8) = 72$
 Alyce: 24 hours (h)
 Jon: 16 hours (h - 8)
 Kim: 32 hours [2(h - 8)]
 37. $x + (x + 2) + (x + 4) = 66$
 1st integer: 20 (x)
 2nd integer: 22 (x + 2)
 3rd integer: 24 (x + 4)
 38. $(3x - 2) + (2x + 4) + (3x - 3) = 89, \text{ or } 8x = 90, x = 11.25$
- For problems 39-42, equations may vary.
39. $3x + 25 = 33, x = 2\frac{2}{3}$
 40. $5y + 9 = 4y + 12, y = 3$
 41. $3d = d + 9 + 6, d = 7\frac{1}{2}$
 42. $3n + 6 = 7n - 26, n = 8$