

CHAPTER 11 ANSWERS

PROBLEM SET 11-2

1. 134 2. -182 3. 11 4. 197

5. 33 6. 16 7. 2 8. 20

9. 49, 56, 63 ($d = 7$)

10. -104, -101, -98, -95, -92, -89 ($d = 3$)

11. 14, 5, -4, -13, -22 ($d = -9$)

12. -167, -191 ($d = -24$)

13. $58\frac{1}{2}, 64, 69\frac{1}{2}$ ($d = 5\frac{1}{2}$)

14. $109\frac{2}{5}, 95\frac{4}{5}, 82\frac{1}{2}, 68\frac{3}{5}$ ($d = -13\frac{3}{5}$)

15. $37\frac{1}{3}, 27\frac{2}{3}, 18, 8\frac{1}{3}, -1\frac{1}{3}$ ($d = -9\frac{2}{3}$)

PROBLEM SET 11-3

1. 1458 2. $\frac{3}{128}$ 3. -512 4. 4.576

5. 10 6. 7 7. 6 8. 7

9. 729

10. 15, 45 ($r = 3$)

11. $\pm 54, 36, \pm 24$ ($r = \pm \frac{2}{3}$)

12. $\frac{1}{8}, \frac{1}{2}, 2, 8$ ($r = 4$)

13. -91, 637 ($r = -7$)

14. $\pm x^7, x^9, \pm x^{11}, x^{13}, \pm x^{15}$ ($r = \pm x^2$)

15. $13\sqrt[3]{2}, 13\sqrt[3]{4}$ ($r = \sqrt[3]{2}$)

16. $\pm 5\sqrt{3}, 15, \pm 15\sqrt{3}$ ($r = \pm\sqrt{3}$)

PROBLEM SET 11-4

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|----|------|-----|------|-----|------|-----|------|
| 1. | 175 | 2. | 975 | 3. | 2200 | 4. | 3990 |
| 5. | 0 | 6. | 63 | 7. | 5000 | 8. | 6475 |
| 9. | 3720 | 10. | 7525 | 11. | 21 | 12. | 13 |

PROBLEM SET 11-5

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|-----|---------------------------------|-----|----------|-----|----------------|-----|------------------|
| 1. | 31 | 2. | 728 | 3. | -182 | 4. | 33 |
| 5. | 147,620 | 6. | 7161 | 7. | 1026 | 8. | 24,605 |
| 9. | 728 | 10. | 381 | 11. | 2 | 12. | 160 |
| 13. | 1093 | 14. | 12:45 | 15. | $3\frac{3}{4}$ | 16. | $7\frac{1}{2}$ |
| 17. | 24 | 18. | Diverges | 19. | Diverges | 20. | $111\frac{1}{9}$ |
| 21. | $121\frac{1}{2}, 60\frac{3}{4}$ | 22. | 4 | 23. | $\frac{3}{4}$ | 24. | Diverges |