

# Answers

## SECTION 1.1

1.  $(4 \times 100) + (5 \times 10) + 6$

2.  $(6 \times 100) + (3 \times 10) + 7$

3.  $(5 \times 1000) + (0 \times 100) + (7 \times 10) + 3$

4.  $(2 \times 10,000) + (0 \times 1000) + (7 \times 100) + (2 \times 10) + 1$

5.  $(6 \times 100) + (3 \times 10) + 8$

6.  $(3 \times 1000) + (7 \times 100) + (2 \times 10) + 5$

7.  $(9 \times 10,000) + (9 \times 1000) + (5 \times 100) + (4 \times 10) + 6$

8.  $(2 \times 100,000) + (0 \times 10,000) + (0 \times 1000) + (3 \times 100) + (4 \times 10) + 0$

9.  $(7 \times 10,000) + (8 \times 1000) + (9 \times 100) + (0 \times 10) + 7$

10.  $(9 \times 1000) + (5 \times 100) + (1 \times 10) + 8$

11.  $(2 \times 100) + (2 \times 10) + 0$

12.  $(3 \times 10,000) + (6 \times 1000) + (9 \times 100) + (4 \times 10) + 8$

## SECTION 1.2

1.  $4 < 8$

2.  $0 < 5$

3.  $500 > 400$

4.  $20 > 15$

5.  $100 < 1000$

6.  $3000 > 2000$

7.  $18 > 12$

8.  $10 > 0$

9.  $78 > 38$

10.  $935 > 158$

11.  $108 < 114$

12.  $62 < 63$

## SECTION 1.3

1. 253,483

2. 350,359

3. 502,078,000

4. 4,230,000,000

5. \$2545

6. 52,384

7. 503,687,000

8. 37,583

9. 300,400

10. 2,430,000

## SECTION 1.4

1. 3,000,000

2. 24,000,000

3. 7,600,000

4. 512,000,000

5. 1,300,000

6. 5489

7. 85,008

8. 977,084

9. 278

10. 27,521

11. 1217

12. 5250

## SECTION 1.5

1. 40

2. 70

3. 250

4. 580

5. 60

6. 70

7. 580

8. 770

9. 7220

10. 1260

11. 42,120

12. 3100

13. 9720

14. 290

## SECTION 1.6

1. 40

2. 70

3. 250
4. 580
5. 700
6. 700
7. 3500
8. 6700
9. 6000
10. 4000
11. 5000
12. 40,000
13. 23,000
14. 39,000
15. 790,000
16. 600,000
17. 22,000,000
18. 930,000
19. 60
20. 70
21. 580
22. 770
23. 900
24. 3000

### SECTION 1.7

1. 79
2. 95
3. 78
4. 99
5. 57

6. 69
7. 89
8. 76
9. 78
10. 87

### SECTION 1.8

1. 71
2. 153
3. 124
4. 101
5. 161
6. 150
7. 114
8. 144

### SECTION 1.9

1. 814
2. 316
3. 570
4. 51
5. 81
6. 71
7. 90
8. 73
9. 132
10. 123
11. 276
12. 964

### SECTION 1.10

1. 93
2. 154
3. 291
4. 450
5. 990
6. 1355
7. 937
8. 779
9. 1693
10. 1224
11. 6033
12. 13,222
13. 4063
14. 5281
15. 6394
16. 6320
17. 96
18. 1071
19. 1312
20. 1147
21. 1722
22. 7297
23. 8841
24. 8470

### SECTION 1.11

1. Estimate: 120,  
actual sum: 118
2. Estimate: 280,  
actual sum: 278

3. Estimate: 330,  
actual sum: 336

4. Estimate: 330,  
actual sum: 326

5. Estimate: 190,  
actual sum: 192

6. Estimate: 300,  
actual sum: 298

7. Estimate: 4000,  
actual sum: 4015

8. Estimate: 5000,  
actual sum: 4975

9. Estimate: 2100,  
actual sum: 2122

10. Estimate: 4600,  
actual sum: 4614

11. Estimate: 4700,  
actual sum: 4730

12. Estimate: 7500,  
actual sum: 7503

13. Estimate: 21,000,  
actual sum: 21,092

14. Estimate: 30,000,  
actual sum: 30,075

15. Estimate: 11,000,  
actual sum: 11,380

16. Estimate: 10,000,  
actual sum: 9925

17. Estimate: 22,000,  
actual sum: 22,187

18. Estimate: 35,000,  
actual sum: 35,255

### SECTION 1.12

1. 63

2. 43

3. 52

4. 54

5. 41

6. 52

7. 51

8. 35

9. 42

10. 54

11. 35

12. 235

### SECTION 1.13

1. 37

2. 37

3. 14

4. 17

5. 37

6. 14

7. 14

8. 15

9. 9

10. 18

### SECTION 1.14

1. 5846

2. 4803

3. 6077

4. 887

5. 3806

### SECTION 1.15

1. 64

2. \$704

3. 521

4. \$210

5. \$221

6. 332 votes

7. 1236 mi

8. \$423

9. \$8233

10. \$1545

11. \$341

12. 63

13. 72 lb

### SECTION 1.16

1. Estimate: 4000, actual  
difference: 3908

2. Estimate: 4000, actual  
difference: 4404

3. Estimate: 28,000, actual  
difference: 27,759

4. Estimate: 23,000, actual  
difference: 23,076

5. Estimate: 3000, actual  
difference: 2889

6. Estimate: 31,000, actual  
difference: 30,846

7. Estimate: 7000, actual  
difference: 7270

8. Estimate: 5000, actual  
difference: 5161

### SECTION 1.17

1. 15

2. 28

3. 8

4. 45

5. 0

6. 36
7. 18
8. 7
9. 30
10. 0
11. 36
12. 32
13. 24
14. 56
15. 35
16. 35
17. 54
18. 63
19. 64
20. 42
21. 72
22. 48
23. 40
24. 81
25. 24
26. 49
27. 27
28. 25
29. 20
30. 21
31. 9
32. 54
33. 0
34. 14

35. 18
36. 5
37. 32
38. 48
39. 0
40. 72

### SECTION 1.18

1. 46
2. 96
3. 22
4. 48
5. 88
6. 88
7. 63
8. 39

### SECTION 1.19

1. 192
2. 265
3. 174
4. 105
5. 104
6. 354
7. 108 packs
8. \$130
9. 84 seats

### SECTION 1.20

1. 11,515
2. 19,293
3. 27,589

4. 20,532
5. 11,571
6. \$24,612
7. 14,500 copies
8. \$18,512
9. 12,650 tablets
10. \$1560
11. \$6642
12. 8760 hours
13. \$6816
14. 8280 pretzels
15. 4000 books

### SECTION 1.21

1. 5
2. 6
3. 8
4. 6
5. 7
6. 7
7. 9
8. 8
9. 7
10. 7
11. 8
12. 7
13. 5
14. 6
15. 7

- 16. 9
- 17. 3
- 18. 9

**SECTION 1.22**

- 1. 23
- 2. 11
- 3. 31
- 4. 10
- 5. 21
- 6. 32
- 7. 12
- 8. 11
- 9. 10
- 10. 12
- 11. 23
- 12. 21

**SECTION 1.23**

- 1. 17
- 2. 8
- 3. 12
- 4. 21
- 5. 14
- 6. 29
- 7. 23
- 8. 14
- 9. 7
- 10. 6
- 11. 9

- 12. 9
- 13. 9 pages
- 14. 7 piles

**SECTION 1.24**

- 1. 5 r55
- 2. 21 r2
- 3. 6 r51
- 4. 7 r36
- 5. 18 r28
- 6. 6 r48
- 7. 23 r5
- 8. 14 r1
- 9. 8 r16
- 10. 7 r51
- 11. 23 r9
- 12. 24 r20
- 13. 6 r23
- 14. 14 r41

**SECTION 1.25**

- 1. 5 r56
- 2. 4 r837
- 3. 23 r66
- 4. 36 r68
- 5. 20 r130
- 6. 20 r110
- 7. 72 r63
- 8. 52 r159
- 9. 205 r70

- 10. 301 r120
- 11. 534 r44
- 12. 706 r126
- 13. 5 r120
- 14. 34 r61
- 15. 25 r302
- 16. 81 r48
- 17. 305 r210
- 18. 846 r50
- 19. 412 r16
- 20. 24 r191

**SECTION 1.26**

- 1. 4 classrooms
- 2. \$9
- 3. 7 boxes
- 4. 8 cars
- 5. 9 bars
- 6. 6 printers
- 7. 228 mi
- 8. \$833
- 9. 32 boxes;  
4 left over
- 10. 15 cookies;  
4 for Lou
- 11. \$145
- 12. \$24
- 13. \$229
- 14. 32 min

15. 62 mi/h \_\_\_\_\_

16. \$458 \_\_\_\_\_

### SECTION 1.27

1. 27 \_\_\_\_\_

2. 16 \_\_\_\_\_

3. 6 \_\_\_\_\_

4. 1 \_\_\_\_\_

5. 20 \_\_\_\_\_

6. 39 \_\_\_\_\_

7. 8 \_\_\_\_\_

8. 23 \_\_\_\_\_

9. 57 \_\_\_\_\_

10. 0 \_\_\_\_\_

11. 5 \_\_\_\_\_

12. 58 \_\_\_\_\_

13. 41 \_\_\_\_\_

14. 12 \_\_\_\_\_

15. 70 \_\_\_\_\_

16. 40 \_\_\_\_\_

17. 35 \_\_\_\_\_

18. 98 \_\_\_\_\_

19. 29 \_\_\_\_\_

20. 13 \_\_\_\_\_

21. 30 \_\_\_\_\_

22. 34 \_\_\_\_\_

23. 18 \_\_\_\_\_

24. 28 \_\_\_\_\_

25. 26 \_\_\_\_\_

26. 0 \_\_\_\_\_

### SECTION 1.28

1. 20 \_\_\_\_\_

2. 72 \_\_\_\_\_

3. 63 \_\_\_\_\_

4. 28 \_\_\_\_\_

5. 35 \_\_\_\_\_

6. 98 \_\_\_\_\_

7. 10 \_\_\_\_\_

8. 18 \_\_\_\_\_

9. 117 \_\_\_\_\_

10. 30 \_\_\_\_\_

11. 45 \_\_\_\_\_

12. 96 \_\_\_\_\_

13. 18 \_\_\_\_\_

14. 51 \_\_\_\_\_

### SECTION 1.29

1. 16 in. \_\_\_\_\_

2. 26 in. \_\_\_\_\_

3. 20 yd \_\_\_\_\_

4. 26 in. \_\_\_\_\_

5. 16 ft \_\_\_\_\_

6. 14 yd \_\_\_\_\_

### SECTION 1.30

1. 22 ft \_\_\_\_\_

2. 21 yd \_\_\_\_\_

3. 32 ft \_\_\_\_\_

4. 23 yd \_\_\_\_\_

5. 21 yd \_\_\_\_\_

6. 14 in. \_\_\_\_\_

7. 21 in. \_\_\_\_\_

8. 111 in. \_\_\_\_\_

### SECTION 1.31

1. 36 yd<sup>2</sup> \_\_\_\_\_

2. 18 in.<sup>2</sup> \_\_\_\_\_

3. 18 in.<sup>2</sup> \_\_\_\_\_

4. 16 ft<sup>2</sup> \_\_\_\_\_

5. 8 ft<sup>2</sup> \_\_\_\_\_

6. 30 in.<sup>2</sup> \_\_\_\_\_

7. 48 ft<sup>2</sup> \_\_\_\_\_

8. 9 in.<sup>2</sup> \_\_\_\_\_

9. 16 ft<sup>2</sup> \_\_\_\_\_

10. 12 in.<sup>2</sup> \_\_\_\_\_

11. 1200 ft<sup>2</sup> \_\_\_\_\_

12. 15 in.<sup>2</sup> \_\_\_\_\_

### SECTION 1.32

1. 700 ft<sup>2</sup> \_\_\_\_\_

2. 74 ft<sup>2</sup> \_\_\_\_\_

3. 153 in.<sup>2</sup> \_\_\_\_\_

4. 234 ft<sup>2</sup> \_\_\_\_\_

5. 56 in.<sup>2</sup> \_\_\_\_\_

6. 31 in.<sup>2</sup> \_\_\_\_\_

7. 14 in.<sup>2</sup> \_\_\_\_\_

8. 14 in.<sup>2</sup> \_\_\_\_\_

### SECTION 1.33

1. 216 ft<sup>3</sup> \_\_\_\_\_

2. 48 yd<sup>3</sup> \_\_\_\_\_

3.  $96 \text{ in.}^3$
4.  $128 \text{ in.}^3$
5.  $24 \text{ in.}^3$
6.  $27 \text{ yd}^3$
7.  $24 \text{ yd}^3$
8.  $30 \text{ in.}^3$
9.  $72 \text{ in.}^3$
10.  $125 \text{ in.}^3$

### SECTION 1.34

1. 145
2. 86
3. 169
4. 118
5. 284
6. 120
7. 28
8. 73
9. 101
10. 65
11. 181
12. 61

### SECTION 1.35

1. 1, 2, 4
2. 1, 2, 3, 6
3. 1, 2, 5, 10
4. 1, 2, 3, 4, 6, 12
5. 1, 3, 5, 15
6. 1, 3, 7, 21

7. 1, 2, 3, 4, 6, 8, 12, 24
8. 1, 2, 4, 8, 16, 32
9. 1, 2, 4, 8, 16, 32, 64
10. 1, 2, 3, 6, 11, 22, 33, 66
11. 1, 11
12. 1, 37
13. 1, 17
14. 1, 2, 4, 8, 16
15. 1, 2, 3, 5, 6, 10, 15, 30
16. 1, 2, 4, 5, 8, 10, 20, 40
17. 1, 2, 3, 6, 7, 14, 21, 42
18. 1, 53

### SECTION 1.36

1. 5, 7, 11, 13, 17, 19
2. 17, 19, 23, 29, 31
3. 13, 17, 19, 23
4. 5, 7, 11, 13, 17
5. 29, 31, 37, 41, 43
6. 17, 19, 23
7. 11, 13, 17

### SECTION 1.37

1.  $2 \times 3 \times 3$
2.  $2 \times 11$
3.  $2 \times 3 \times 5$
4.  $5 \times 7$
5.  $3 \times 17$

6.  $2 \times 3 \times 7$
7.  $3 \times 3 \times 7$
8.  $2 \times 47$
9.  $2 \times 5 \times 7$
10.  $2 \times 3 \times 3 \times 5$
11.  $2 \times 3 \times 11$
12.  $2 \times 2 \times 5 \times 5$
13.  $2 \times 5 \times 13$
14.  $2 \times 2 \times 2 \times 11$
15.  $3 \times 3 \times 5 \times 7$
16.  $2 \times 2 \times 2 \times 2 \times 5 \times 5$
17.  $3 \times 3 \times 5 \times 5$
18.  $2 \times 2 \times 3 \times 11$
19.  $3 \times 3 \times 3 \times 7$
20.  $2 \times 3 \times 5 \times 11$
21.  $2 \times 2 \times 2 \times 2 \times 3 \times 7$
22.  $2 \times 2 \times 5 \times 5 \times 5$
23.  $2 \times 2 \times 2 \times 3 \times 5 \times 7$
24.  $2 \times 3 \times 3 \times 5 \times 13$
25.  $2 \times 2 \times 3$
26.  $2 \times 13$
27.  $2 \times 5 \times 5$
28.  $2 \times 2 \times 13$
29.  $2 \times 3 \times 13$
30.  $2 \times 5 \times 11$
31.  $2 \times 2 \times 2 \times 5 \times 5$
32.  $3 \times 5 \times 7$
33.  $2 \times 7 \times 11$
34.  $2 \times 2 \times 3 \times 3 \times 7$

35.  $2 \times 2 \times 3 \times 5 \times 5$

36.  $2 \times 2 \times 3 \times 3 \times 5 \times 7$

**SECTION 1.38**

1. 2

2. 3

3. 5

4. 2

5. 3

6. 11

7. 1

8. 14

9. 6

10. 1

11. 18

12. 12

13. 12

14. 18

15. 21

16. 35

17. 4

18. 5

19. 6

20. 1

21. 1

22. 10

23. 12

24. 8

**SECTION 1.39**

1. 6

2. 15

3. 12

4. 18

5. 20

6. 36

7. 36

8. 60

9. 48

10. 30

11. 60

12. 84

13. 36

14. 50

15. 200

16. 70

17. 120

18. 72

19. 120

20. 420

21. 150

22. 72

23. 48

24. 60

25. 12

26. 16

27. 72

28. 60

29. 25

30. 42

31. 24

32. 100

33. 90

34. 36

35. 63

36. 88

**SECTION 2.1**

1. 7

2. 6

3. 7

4. 6

5. 6

6. 8

7. 8

8. 4

9. 3

10. 11

**SECTION 2.2**

1.  $\frac{2}{3}$

2.  $\frac{4}{5}$

3.  $\frac{5}{7}$

4.  $\frac{3}{10}$

5.  $\frac{2}{3}$

6.  $\frac{4}{5}$

7.  $\frac{7}{8}$

8.  $\frac{7}{8}$
9.  $\frac{1}{4}$
10.  $\frac{2}{5}$
11.  $\frac{1}{3}$
12.  $\frac{3}{8}$
13.  $\frac{8}{9}$
14.  $\frac{3}{5}$
15.  $\frac{4}{5}$
16.  $\frac{1}{3}$
17.  $\frac{5}{7}$
18.  $\frac{2}{3}$
19.  $\frac{4}{5}$
20.  $\frac{8}{11}$
21.  $\frac{7}{9}$
22.  $\frac{3}{7}$

### SECTION 2.3

1.  $3\frac{1}{2}$
2.  $2\frac{2}{3}$
3.  $1\frac{1}{4}$
4.  $1\frac{2}{7}$
5.  $4\frac{2}{5}$
6.  $3\frac{3}{8}$
7.  $6\frac{4}{5}$
8.  $4\frac{1}{6}$
9.  $11\frac{4}{5}$
10.  $8\frac{2}{7}$
11.  $9\frac{1}{8}$
12.  $12\frac{7}{12}$

13. 4
14. 20
15. 9
16. 8
17.  $1\frac{2}{3}$
18.  $1\frac{1}{6}$
19.  $6\frac{2}{7}$
20.  $6\frac{3}{8}$
21.  $42\frac{6}{7}$
22.  $4\frac{1}{4}$
23.  $9\frac{1}{4}$
24. 3

### SECTION 2.4

1.  $2\frac{6}{7}$
2.  $3\frac{8}{9}$
3. 6
4.  $7\frac{1}{2}$
5.  $12\frac{1}{2}$
6. 14
7.  $6\frac{3}{5}$
8.  $3\frac{3}{4}$
9.  $5\frac{1}{4}$
10.  $3\frac{1}{3}$

### SECTION 2.5

1.  $\frac{1}{44}$
2.  $\frac{1}{63}$
3.  $\frac{1}{20}$

4.  $\frac{1}{15}$
5.  $\frac{1}{35}$
6.  $\frac{1}{66}$
7.  $\frac{1}{39}$
8.  $\frac{1}{99}$
9.  $\frac{1}{72}$
10.  $\frac{1}{45}$
11.  $\frac{1}{90}$
12.  $\frac{1}{42}$
13.  $\frac{1}{40}$
14.  $\frac{1}{65}$
15.  $\frac{1}{48}$

### SECTION 2.6

1.  $\frac{15}{44}$
2.  $\frac{10}{63}$
3.  $1\frac{1}{20}$
4.  $1\frac{1}{15}$
5.  $\frac{3}{7}$
6.  $\frac{8}{11}$
7.  $\frac{8}{39}$
8.  $\frac{10}{33}$
9.  $\frac{7}{33}$
10.  $\frac{7}{15}$
11.  $\frac{1}{6}$
12.  $\frac{2}{15}$
13.  $\frac{14}{15}$
14.  $3\frac{1}{5}$
15.  $5\frac{5}{6}$

16.  $\frac{21}{44}$
17.  $\frac{6}{35}$
18.  $\frac{15}{44}$
19.  $\frac{7}{27}$
20.  $\frac{5}{14}$
21.  $\frac{2}{5}$

### SECTION 2.7

1.  $1\frac{1}{20}$
2.  $\frac{5}{9}$
3.  $1\frac{3}{32}$
4.  $1\frac{2}{5}$
5.  $2\frac{8}{11}$
6.  $1\frac{3}{5}$
7.  $1\frac{3}{7}$
8.  $1\frac{3}{10}$
9.  $\frac{1}{2}$
10.  $\frac{9}{20}$
11.  $1\frac{2}{9}$
12.  $1\frac{2}{7}$

### SECTION 2.8

1.  $5\frac{1}{18}$
2.  $5\frac{5}{6}$
3.  $4\frac{11}{20}$
4.  $4\frac{4}{21}$
5.  $5\frac{2}{3}$

6.  $4\frac{1}{2}$
7.  $1\frac{3}{4}$
8.  $16\frac{2}{3}$
9.  $4\frac{1}{3}$
10.  $4\frac{1}{3}$
11.  $16\frac{1}{3}$
12.  $9\frac{3}{4}$

### SECTION 2.9

1.  $\frac{1}{7}$
2.  $\frac{1}{3}$
3. 1
4.  $\frac{1}{15}$
5.  $\frac{1}{100}$
6.  $\frac{1}{19}$
7.  $\frac{1}{6}$
8.  $\frac{1}{45}$
9.  $\frac{1}{37}$
10.  $\frac{1}{22}$
11.  $\frac{1}{549}$
12.  $\frac{1}{16}$

### SECTION 2.10

1.  $\frac{4}{15}$
2.  $1\frac{1}{5}$
3.  $\frac{8}{15}$
4.  $\frac{5}{6}$
5.  $\frac{2}{3}$
6.  $\frac{55}{72}$
7.  $1\frac{13}{50}$

8.  $1\frac{7}{33}$
9.  $1\frac{1}{3}$
10.  $\frac{2}{3}$
11.  $\frac{4}{15}$
12.  $\frac{5}{12}$
13.  $\frac{28}{45}$
14.  $\frac{21}{40}$
15.  $1\frac{1}{6}$
16.  $\frac{2}{3}$
17.  $3\frac{3}{4}$
18.  $1\frac{2}{3}$

### SECTION 2.11

1.  $1\frac{1}{6}$
2.  $1\frac{1}{4}$
3.  $2\frac{8}{11}$
4.  $2\frac{2}{9}$
5.  $1\frac{1}{2}$
6.  $2\frac{4}{5}$
7.  $1\frac{1}{3}$
8.  $1\frac{1}{2}$
9.  $2\frac{9}{20}$
10.  $3\frac{1}{2}$

### SECTION 2.12

1.  $\frac{4}{5}$
2.  $\frac{5}{7}$
3.  $\frac{10}{11}$
4.  $\frac{9}{16}$

5.  $\frac{1}{2}$
6.  $\frac{1}{2}$
7. 1
8.  $\frac{1}{2}$
9.  $\frac{2}{3}$
10. 1
11.  $\frac{3}{4}$
12.  $\frac{4}{5}$
13.  $1\frac{2}{7}$
14.  $1\frac{2}{5}$
15.  $1\frac{3}{5}$
16.  $1\frac{1}{2}$
17.  $1\frac{3}{4}$
18.  $1\frac{1}{3}$
19.  $\frac{5}{8}$
20.  $\frac{7}{10}$
21.  $1\frac{1}{9}$
22.  $1\frac{7}{12}$
23.  $1\frac{1}{2}$
24.  $1\frac{7}{20}$
25.  $\frac{4}{7}$
26.  $\frac{5}{9}$
27.  $\frac{3}{4}$
28.  $\frac{2}{5}$
29.  $\frac{2}{3}$
30. 1
31.  $1\frac{2}{13}$
32.  $1\frac{2}{9}$

33.  $1\frac{1}{3}$
34.  $\frac{7}{9}$
35.  $1\frac{2}{9}$
36.  $1\frac{1}{5}$

### SECTION 2.13

1.  $5\frac{7}{9}$
2.  $11\frac{2}{3}$
3.  $7\frac{2}{3}$
4. 7
5.  $11\frac{1}{3}$
6.  $10\frac{1}{3}$
7.  $6\frac{8}{11}$
8.  $8\frac{1}{2}$
9. 10
10.  $6\frac{3}{7}$

### SECTION 2.14

1.  $\frac{11}{12}$
2.  $\frac{14}{15}$
3.  $\frac{1}{2}$
4.  $\frac{7}{18}$
5.  $\frac{7}{8}$
6.  $\frac{9}{10}$
7.  $\frac{26}{35}$
8.  $\frac{3}{10}$
9.  $\frac{9}{14}$
10.  $\frac{23}{40}$
11.  $\frac{11}{21}$

12.  $\frac{27}{40}$
13.  $\frac{24}{43}$
14.  $\frac{60}{11}$
15.  $1\frac{11}{18}$
16.  $\frac{5}{12}$
17.  $\frac{36}{29}$
18.  $\frac{47}{75}$
19.  $1\frac{25}{48}$
20.  $1\frac{19}{150}$
21.  $\frac{13}{20}$
22.  $\frac{29}{30}$
23.  $\frac{13}{15}$
24.  $\frac{60}{53}$
25.  $\frac{19}{24}$
26.  $\frac{31}{72}$
27.  $\frac{7}{12}$
28.  $1\frac{5}{42}$
29.  $1\frac{17}{90}$
30.  $1\frac{17}{150}$

### SECTION 2.15

1.  $\frac{2}{5}$
2.  $\frac{3}{7}$
3.  $\frac{1}{3}$
4.  $\frac{2}{5}$
5.  $\frac{1}{2}$
6.  $\frac{1}{15}$
7.  $\frac{7}{12}$
8.  $\frac{1}{3}$

9.  $\frac{5}{9}$   
 10.  $\frac{3}{10}$   
 11.  $\frac{1}{2}$   
 12.  $\frac{1}{3}$

### SECTION 2.16

1.  $\frac{7}{15}$   
 2.  $\frac{11}{18}$   
 3.  $\frac{2}{15}$   
 4.  $\frac{23}{42}$   
 5.  $\frac{1}{8}$   
 6.  $\frac{1}{10}$   
 7.  $\frac{1}{24}$   
 8.  $\frac{19}{60}$   
 9.  $\frac{29}{75}$   
 10.  $\frac{13}{60}$   
 11.  $\frac{1}{6}$   
 12.  $\frac{1}{12}$   
 13.  $\frac{5}{36}$   
 14.  $\frac{1}{90}$   
 15.  $\frac{8}{15}$   
 16.  $\frac{11}{48}$   
 17.  $\frac{5}{24}$   
 18.  $\frac{7}{30}$   
 19.  $\frac{7}{18}$   
 20.  $\frac{7}{12}$   
 21.  $\frac{11}{24}$   
 22.  $\frac{11}{36}$   
 23.  $\frac{13}{42}$

24.  $\frac{23}{90}$

### SECTION 2.17

1.  $1\frac{5}{12}$   
 2.  $4\frac{19}{30}$   
 3.  $2\frac{5}{6}$   
 4.  $3\frac{41}{60}$   
 5.  $3\frac{29}{36}$   
 6.  $6\frac{17}{21}$   
 7.  $3\frac{13}{18}$   
 8.  $5\frac{35}{36}$   
 9.  $2\frac{5}{6}$   
 10.  $3\frac{13}{15}$

### SECTION 2.18

1.  $\frac{11}{20}$   
 2.  $\frac{1}{2}$   
 3.  $\frac{1}{12}$   
 4.  $\frac{5}{12}$   
 5.  $\frac{17}{40}$   
 6.  $\frac{3}{4}$

### SECTION 2.19

1.  $\frac{5}{13} < \frac{9}{13} < \frac{11}{13}$   
 2.  $\frac{1}{5} < \frac{3}{5} < \frac{4}{5}$   
 3.  $\frac{11}{27} < \frac{13}{27} < \frac{23}{27}$   
 4.  $\frac{3}{8} < \frac{5}{8} < \frac{7}{8}$   
 5.  $\frac{13}{63} < \frac{19}{63} < \frac{47}{63}$

### SECTION 2.20

1.  $\frac{6}{11} < \frac{6}{9} < \frac{6}{7}$   
 2.  $\frac{4}{9} < \frac{4}{7} < \frac{4}{5}$   
 3.  $\frac{11}{21} < \frac{11}{15} < \frac{11}{13}$   
 4.  $\frac{8}{15} < \frac{8}{13} < \frac{8}{9}$   
 5.  $\frac{17}{53} < \frac{17}{43} < \frac{17}{33}$   
 6.  $\frac{2}{13} < \frac{2}{9} < \frac{2}{7}$   
 7.  $\frac{7}{25} < \frac{7}{16} < \frac{7}{9}$   
 8.  $\frac{9}{59} < \frac{9}{32} < \frac{9}{11}$   
 9.  $\frac{10}{23} < \frac{10}{17} < \frac{10}{13}$   
 10.  $\frac{1}{12} < \frac{1}{7} < \frac{1}{4}$   
 11.  $\frac{4}{81} < \frac{4}{13} < \frac{4}{9}$   
 12.  $\frac{6}{29} < \frac{6}{17} < \frac{6}{13}$

### SECTION 2.21

1.  $\frac{1}{4} < \frac{1}{3} < \frac{3}{8}$   
 2.  $\frac{5}{18} < \frac{1}{3} < \frac{7}{12}$   
 3.  $\frac{4}{5} < \frac{5}{6} < \frac{11}{12}$   
 4.  $\frac{13}{32} < \frac{9}{16} < \frac{5}{8}$   
 5.  $\frac{5}{8} < \frac{2}{3} < \frac{3}{4}$   
 6.  $\frac{3}{8} < \frac{5}{12} < \frac{2}{3}$   
 7.  $\frac{2}{3} < \frac{4}{5} < \frac{8}{9}$   
 8.  $\frac{2}{9} < \frac{1}{3} < \frac{3}{7}$   
 9.  $\frac{5}{8} < \frac{11}{16} < \frac{3}{4}$   
 10.  $\frac{1}{2} < \frac{3}{5} < \frac{7}{11}$   
 11.  $\frac{7}{8} < \frac{11}{12} < \frac{15}{16}$   
 12.  $\frac{5}{16} < \frac{3}{8} < \frac{2}{5}$

**SECTION 2.22**

1.  $\frac{5}{12}$
2.  $\frac{7}{15}$
3.  $\frac{9}{13} \text{ yd}^2$
4.  $\frac{1}{10}$
5.  $\frac{5}{8}$
6.  $\frac{7}{12} \text{ yd}$

**SECTION 3.1**

1. 1.07
2. 3.22
3. 3.735
4. 17.35
5. 1.50
6. 3.825
7. 18.25
8. 102.214
9. 28.29
10. 24.735
11. 31.135
12. 22.319
13. 23.675
14. 34.4462
15. 36.298
16. 48.1644
17. 25.7717
18. 3.521
19. 1.791
20. 2.209

21. 47.25
22. 46.86
23. 31.45
24. 42.15
25. 147.029
26. 280.101
27. 27.72
28. 549.021
29. 259.345
30. 35.3634

**SECTION 3.2**

1. 4.03
2. 7.2
3. 2.11
4. 7.15
5. 5.43
6. 8.22
7. 7.21
8. 3.42
9. 6.3
10. 3.16
11. 3.62
12. 5.25

**SECTION 3.3**

1. 0.26
2. 17.24
3. 28.78
4. 13.632

5. 18.497
6. 28.35
7. 2.255
8. 2.99
9. 2.62
10. 36.85
11. 6.65
12. 6.15
13. 9.475
14. 32.375
15. 3.275
16. 26.125
17. 12.55
18. 7.378
19. 18.75
20. 2.79
21. 7.365
22. 3.905
23. 6.65
24. 12.125

**SECTION 3.4**

1. 58.9
2. 89.5
3. 2379
4. 24.1
5. 0.45
6. 580
7. 43.1

- 8. 0.25
- 9. 712.5
- 10. 23,420
- 11. 48.2
- 12. 357
- 13. 78.5
- 14. 1485
- 15. 45,710
- 16. 57.3

**SECTION 3.5**

- 1. 184.32
- 2. 1984.5
- 3. 21.576
- 4. 58.4
- 5. 204.16
- 6. 5.4
- 7. \$39.92
- 8. \$1483.80
- 9. 604.8 cm<sup>2</sup>
- 10. \$261.30
- 11. \$11,634.24
- 12. \$17.88
- 13. \$93.50
- 14. \$66.75
- 15. \$79.70
- 16. \$38.53
- 17. \$202.10
- 18. \$470

**SECTION 3.6**

- 1. 7.82
- 2. 27.95
- 3. 43.68
- 4. 1.794
- 5. 4.275
- 6. 36.895
- 7. 16.697
- 8. 0.2832
- 9. 0.5304
- 10. 16.6296
- 11. 3.6666
- 12. 2.51424
- 13. 0.581256
- 14. 0.665
- 15. 42.32
- 16. 6.293
- 17. 37.066
- 18. 2.1945
- 19. 1.1385
- 20. 0.4338
- 21. 1.08888

**SECTION 3.7**

- 1. 0.046
- 2. 0.02795
- 3. 0.0402
- 4. 0.054756
- 5. 0.0665

- 6. 0.04692
- 7. 0.0004592
- 8. 0.046368
- 9. 0.019008
- 10. 0.06851

**SECTION 3.8**

- 1. 0.48
- 2. 0.32
- 3. 0.03538
- 4. 0.07318
- 5. 0.08479
- 6. 0.0641
- 7. 0.0096
- 8. 0.0043
- 9. 0.267
- 10. 6.579
- 11. 0.00523
- 12. 0.0953

**SECTION 3.9**

- 1. 58.9
- 2. 89.5
- 3. 2379
- 4. 24.1
- 5. 0.45
- 6. 580
- 7. 43.1
- 8. 0.25
- 9. 47.1

10. 9500
11. 712.5
12. 23,420
13. \$138
14. 530 cm
15. 2200 g
16. \$178.00
17. 0.58
18. 0.51
19. 0.04568
20. 0.03817
21. 0.02439
22. 0.0841
23. 0.0069
24. 0.0072
25. \$485
26. \$235
27. 0.25 g
28. 0.75 L
29. \$5.94
30. 76¢

### SECTION 3.10

1. 2.78
2. 5.49
3. 0.48
4. 0.92
5. 0.685
6. 0.345

7. 2.315
8. 4.384
9. 0.78
10. 3.85
11. 0.535
12. 0.825

### SECTION 3.11

1. 90
2. 40
3. 2.235
4. 0.565
5. 34.5
6. 6.215
7. 23.5
8. 35
9. 62.5
10. 215
11. 5.35
12. 2.15
13. 4.38
14. 2.385
15. 7.35
16. 8.45
17. 322.5
18. 28.4

### SECTION 3.12

1. 640 nails
2. 17.6 mi/gal

3. 16.4 ft<sup>3</sup>
4. 1.38 in.
5. 128 pieces
6. 34.9 mi/gal
7. 50 mi/h

### SECTION 3.13

1.  $\frac{9}{10}$
2.  $\frac{3}{10}$
3.  $\frac{4}{5}$
4.  $\frac{3}{5}$
5.  $\frac{37}{100}$
6.  $\frac{97}{100}$
7.  $\frac{587}{1000}$
8.  $\frac{379}{1000}$
9.  $\frac{12}{25}$
10.  $\frac{3}{4}$
11.  $\frac{29}{50}$
12.  $\frac{13}{20}$
13.  $\frac{17}{40}$
14.  $\frac{29}{250}$
15.  $\frac{3}{8}$
16.  $\frac{9}{40}$
17.  $\frac{17}{125}$
18.  $\frac{23}{40}$
19.  $\frac{59}{1000}$
20.  $\frac{67}{1000}$
21.  $\frac{1}{16}$
22.  $\frac{17}{400}$

23.  $\frac{7}{10}$
24.  $\frac{33}{50}$
25.  $\frac{41}{100}$
26.  $\frac{863}{1000}$
27.  $\frac{7}{20}$
28.  $\frac{9}{25}$
29.  $\frac{13}{40}$
30.  $\frac{31}{125}$
31.  $\frac{7}{8}$
32.  $\frac{37}{1000}$

### SECTION 3.14

1.  $0.0\bar{5}$
2.  $0.\bar{4}$
3.  $0.2\bar{7}$
4.  $0.\bar{72}$
5.  $0.2\bar{7}$
6.  $0.6\bar{3}$
7.  $0.2\bar{6}$
8.  $0.8\bar{3}$
9.  $0.4\bar{6}$
10.  $0.291\bar{6}$

### SECTION 4.1

1. 12 days
2. 2 days
3. 36 minutes or  $\frac{3}{5}$  hour
4. 2 days
5.  $\frac{2}{3}$  hour
6. 9 work-hours

### SECTION 4.2

1. 110 chairs
2. 440 mi
3. \$60
4. 24 min
5. 90 rolls
6. 5 h
7. 600 mufflers

### SECTION 4.3

1.  $\frac{3}{50}$
2.  $\frac{17}{100}$
3.  $\frac{3}{4}$
4.  $\frac{1}{5}$
5.  $\frac{13}{20}$
6.  $\frac{12}{25}$
7.  $\frac{1}{2}$
8.  $\frac{13}{25}$
9.  $\frac{23}{50}$
10.  $\frac{7}{20}$
11.  $\frac{33}{50}$
12.  $\frac{17}{25}$
13.  $\frac{2}{25}$
14.  $\frac{23}{100}$
15.  $\frac{3}{5}$
16.  $\frac{9}{20}$
17.  $\frac{9}{25}$
18.  $\frac{39}{50}$

### SECTION 4.4

1. 25%
2. 80%
3. 40%
4. 50%
5. 20%
6. 75%
7. 62.5% or  $62\frac{1}{2}\%$
8. 87.5% or  $87\frac{1}{2}\%$
9. 31.25% or  $31\frac{1}{4}\%$
10. 120%
11. 350%
12. 66.7%
13. 16.7%
14. 18.75% or  $18\frac{3}{4}\%$
15. 275%
16. 60%
17. 780%
18. 12.5% or  $12\frac{1}{2}\%$
19. 43.75% or  $43\frac{3}{4}\%$
20. 225%
21.  $83\frac{1}{3}\%$
22. 38.5%
23. 77.8%
24. 45.5%
25. 85.9%
26. 56.6%

## SECTION 4.5

1. 210

2. 80

3. 90

4. 480

5. 1000

6. 90

7. 880

8. 690

9. 4320

10. 3200

11. 25.5

12. 66

13. 705

14. 17.5

15. 157.5

16. 551

17. 150

18. 45

19. 900

20. 4480

21. 33.25

22. 51

## SECTION 4.6

1. 8%

2. 6%

3. 9%

4. 7%

5. 170%

6. 14%

7. 175%

8. 130%

9. 400%

10. 120%

11. 7.5%

12.  $33\frac{1}{3}\%$

13.  $66\frac{2}{3}\%$

14. 9.75%

15. 62.5%

16. 8.5%

17. 21%

18. 12%

19. 15%

20. 37.5%

21. 76.5%

22.  $66\frac{2}{3}\%$

## SECTION 4.7

1. \$408

2. 54 mL

3. \$143

4. \$5100

5. \$16.64

6. \$190

7. \$8125

8. 84 questions

9. \$13,875

10. 6840

11. \$13.75

12. \$337.50

13. 7550 thousand bbl

14. 189 million t

15. 19.2 oz

16. \$24.75

17. \$133

18. 39 questions

19. \$12,900

20. 1917 students

21. \$1332

22. 34.4 mi/gal

## SECTION 4.8

1. 5%

2. 11%

3. 1.5%

4. 13%

5. 25 questions

6. \$200

7. \$5000

8. \$36,000

9. 8.5%

10. 16.5%

11. 25%

12. 16%

13. 1200 people

14. 3600 students

15. \$950

16. \$2400 \_\_\_\_\_

### SECTION 5.1

1. False \_\_\_\_\_
2. False \_\_\_\_\_
3. True \_\_\_\_\_
4. True \_\_\_\_\_
5. False \_\_\_\_\_
6. True \_\_\_\_\_
7. False \_\_\_\_\_
8. True \_\_\_\_\_
9. 20 \_\_\_\_\_
10. 12 \_\_\_\_\_
11. 15 \_\_\_\_\_
12. 10 \_\_\_\_\_
13. 12 \_\_\_\_\_
14. 15 \_\_\_\_\_

### SECTION 5.2

1.  $-6 < 2 < |-3| < |-4|$  \_\_\_\_\_
2.  $-1 < |3| < |-7| < 10$  \_\_\_\_\_
3.  $-5 < 4 < |7| < |-9|$  \_\_\_\_\_
4.  $-4 < 1 < |-2| < 8$  \_\_\_\_\_
5.  $|-2| < |-3| < |-4| < |-5|$  \_\_\_\_\_
6.  $|4| < |-8| < 11 < |-15|$  \_\_\_\_\_
7.  $-7 < -6 < |2| < |-7|$  \_\_\_\_\_
8.  $-4 < |-1| < 3 < |4|$  \_\_\_\_\_
9.  $4 < |10| < 13 < |-17|$  \_\_\_\_\_
10.  $1 < 2 < |-3| < |-14|$  \_\_\_\_\_

### SECTION 5.3

1. -11 \_\_\_\_\_
2. -13 \_\_\_\_\_
3. -15 \_\_\_\_\_
4. -16 \_\_\_\_\_
5. -25 \_\_\_\_\_
6. -9 \_\_\_\_\_
7. -10 \_\_\_\_\_
8. -14 \_\_\_\_\_
9. -17 \_\_\_\_\_
10. -59 \_\_\_\_\_
11. -69 \_\_\_\_\_
12. -34 \_\_\_\_\_

### SECTION 5.4

1. -2 \_\_\_\_\_
2. 7 \_\_\_\_\_
3. -6 \_\_\_\_\_
4. -3 \_\_\_\_\_
5. -1 \_\_\_\_\_
6. -2 \_\_\_\_\_
7. 1 \_\_\_\_\_
8. 2 \_\_\_\_\_
9. -15 \_\_\_\_\_
10. -6 \_\_\_\_\_
11. -3 \_\_\_\_\_
12. -4 \_\_\_\_\_
13. 3 \_\_\_\_\_
14. 4 \_\_\_\_\_
15. 5 \_\_\_\_\_
16. -1 \_\_\_\_\_

17. -3 \_\_\_\_\_

18. 4 \_\_\_\_\_

### SECTION 5.5

1. -2 \_\_\_\_\_
2. 7 \_\_\_\_\_
3. 16 \_\_\_\_\_
4. 4 \_\_\_\_\_
5. -6 \_\_\_\_\_
6. -3 \_\_\_\_\_
7. -15 \_\_\_\_\_
8. 1 \_\_\_\_\_
9. -1 \_\_\_\_\_
10. -2 \_\_\_\_\_
11. -8 \_\_\_\_\_
12. 0 \_\_\_\_\_
13. 1 \_\_\_\_\_
14. 2 \_\_\_\_\_
15. 0 \_\_\_\_\_
16. -15 \_\_\_\_\_
17. -6 \_\_\_\_\_
18. -10 \_\_\_\_\_
19. -3 \_\_\_\_\_
20. -4 \_\_\_\_\_
21. 0 \_\_\_\_\_
22. 0 \_\_\_\_\_

### SECTION 5.6

1. 1 \_\_\_\_\_
2. -3 \_\_\_\_\_
3. 0 \_\_\_\_\_
4. 0 \_\_\_\_\_
5. 10 \_\_\_\_\_

6.  $10$

7.  $-10$

8.  $-10$

9.  $3$

10.  $3$

11.  $0$

12.  $4$

### SECTION 5.7

1.  $3.4$

2.  $-0.9$

3.  $-2$

4.  $-8.4$

5.  $-14.3$

6.  $2.9$

7.  $-3.9$

8.  $0$

9.  $0.1$

10.  $0.8$

11.  $4.58$

12.  $-2.72$

13.  $3.38$

14.  $6.73$

### SECTION 5.8

1.  $-72$

2.  $-12$

3.  $-11.5$

4.  $-58.8$

5.  $-60$

6.  $-100$

7.  $-100$

8.  $-80$

9.  $-\frac{16}{45}$

10.  $-\frac{2}{15}$

11.  $-28.4$

12.  $-23.5$

13.  $-\frac{4}{35}$

14.  $-\frac{1}{21}$

15.  $-8.88$

16.  $-39.76$

17.  $-\frac{15}{64}$

18.  $-\frac{7}{15}$

### SECTION 5.9

1.  $42$

2.  $24$

3.  $64$

4.  $200$

5.  $108$

6.  $81$

7.  $84$

8.  $105$

9.  $54$

10.  $36$

### SECTION 5.10

1.  $-10$

2.  $-6$

3.  $-4$

4.  $-5$

5.  $-25$

6.  $-25$

7.  $-9$

8.  $-9$

9.  $-6$

10.  $-12$

### SECTION 5.11

1.  $-5$

2.  $-7$

3.  $-4$

4.  $-7$

5.  $-3$

6.  $-8$

7.  $-7$

8.  $-12$

9.  $-5$

10.  $-2$

### SECTION 5.12

1.  $10$

2.  $8$

3.  $5$

4.  $10$

5.  $12$

6.  $5$

7.  $12$

8.  $6$

9.  $8$

10.  $12$

**SECTION 6.1**

1.  $4^2 \times 2^2 > 2^4$
2.  $2^3 \times 4^3 = 8^3$
3.  $2^4 \times 2^2 < 4^4$
4.  $8^2 \times 2^2 = 4^4$
5.  $4^4 \times 4^2 = 8^4$
6.  $4^2 \times 4^3 < 16^5$
7.  $2^3 \times 2^4 > 8^2$
8.  $3^4 \times 9^2 = 81^2$
9.  $5^3 \times 10^3 > 25^3$
10.  $6^3 \times 6 = 36^2$

**SECTION 6.2**

1. 8
2. 11
3. 13
4. 14
5. 15
6. 16
7. 20
8. 28
9. 5
10. 17
11. 12
12. 22

**SECTION 6.3**

1.  $5\sqrt{3}$
2.  $5\sqrt{2}$
3.  $4\sqrt{2}$

4.  $3\sqrt{5}$
5.  $10\sqrt{5}$
6.  $4\sqrt{6}$
7.  $2\sqrt{5}$
8.  $3\sqrt{7}$
9.  $12\sqrt{2}$
10.  $3\sqrt{6}$
11.  $4\sqrt{5}$
12.  $9\sqrt{2}$

**SECTION 6.4**

1.  $14\sqrt{3}$
2.  $10\sqrt{5}$
3.  $11\sqrt{3}$
4.  $64\sqrt{2}$
5.  $5\sqrt{6}$
6.  $7\sqrt{7}$
7.  $7\sqrt{5}$
8.  $11\sqrt{10}$
9.  $10\sqrt{6}$
10.  $3\sqrt{14}$

**SECTION 6.5**

1. 60
2. 180
3. 72
4. 144
5. 108
6. 30
7.  $14\sqrt{3}$

8.  $8\sqrt{33}$
9. 60
10.  $21\sqrt{3}$

**SECTION 6.6**

1. 2
2. 6
3. 1
4. 7
5. 10
6. 3
7. 8
8. 9
9. -2
10. -3
11. -4
12. -7

**SECTION 6.7**

1. 36
2. 64
3. 400
4. 16
5. 64
6. 900
7. 900
8. 196
9. 400
10. 324

11. 225

12. 576

**SECTION 6.8**

1. -9

2. -216

3. -512

4. -125

5. -729

6. -864

7. -1000

8. -72

9. -256

10. -1600

11. -500

12. -343

**SECTION 6.9**

1.  $\frac{1}{9}$

2. 64

3.  $\frac{1}{27}$

4. 25

5.  $\frac{1}{16}$

6.  $\frac{1}{216}$

7. 49

8. 81

9.  $\frac{1}{16}$

10.  $\frac{1}{125}$

11. 36

12. 8

**SECTION 6.10**

1.  $\left(\frac{1}{5}\right)^{-1} > 5^{-1}$

2.  $\left(\frac{1}{5}\right)^{-2} > \left(\frac{1}{5}\right)^{-1}$

3.  $5^{-2} < \left(\frac{1}{5}\right)^{-2}$

4.  $5^{-1} > 5^{-2}$

5.  $\left(\frac{1}{5}\right)^{-2} = 5^2$

6.  $2^{-3} < 2^{-2}$

7.  $3^{-1} < \left(\frac{1}{3}\right)^{-2}$

8.  $\left(\frac{1}{7}\right)^{-4} > 7^{-3}$

9.  $\left(\frac{1}{4}\right)^{-3} < 4^4$

10.  $\left(\frac{1}{6}\right)^{-4} = 6^4$

**SECTION 6.11**

1. 16

2.  $\frac{1}{64}$

3. -3

4. 25

5. -32

6.  $\frac{1}{64}$

7.  $\frac{1}{36}$

8. 81

9.  $\frac{1}{9}$

10.  $\frac{1}{49}$

11. 121

12.  $\frac{1}{1000}$

**SECTION 6.12**

1.  $3.4 \times 10^2$

2.  $8.9 \times 10^3$

3.  $8.7 \times 10^4$

4.  $9.121 \times 10^5$

5.  $8.0 \times 10^6$

6.  $2.12 \times 10^2$

7.  $6.732 \times 10^5$

8.  $4.751 \times 10^3$

9.  $7.23 \times 10^4$

10.  $1.5 \times 10^1$

11.  $8.168 \times 10^5$

12.  $9.81 \times 10^5$

13.  $4.917 \times 10^3$

14.  $4.042 \times 10^4$

**SECTION 6.13**

1.  $9 \times 10^{-2}$

2.  $1.43 \times 10^{-3}$

3.  $5.2 \times 10^{-5}$

4.  $5 \times 10^{-2}$

5.  $8.601 \times 10^{-3}$

6.  $1.466 \times 10^{-1}$

7.  $5.14 \times 10^{-5}$

8.  $4.058 \times 10^{-4}$

9.  $7.308 \times 10^{-3}$

10.  $4.3991 \times 10^{-2}$

11.  $2.91 \times 10^{-2}$

12.  $2.78 \times 10^{-6}$

13.  $8.068 \times 10^{-4}$

14.  $7.7 \times 10^{-5}$