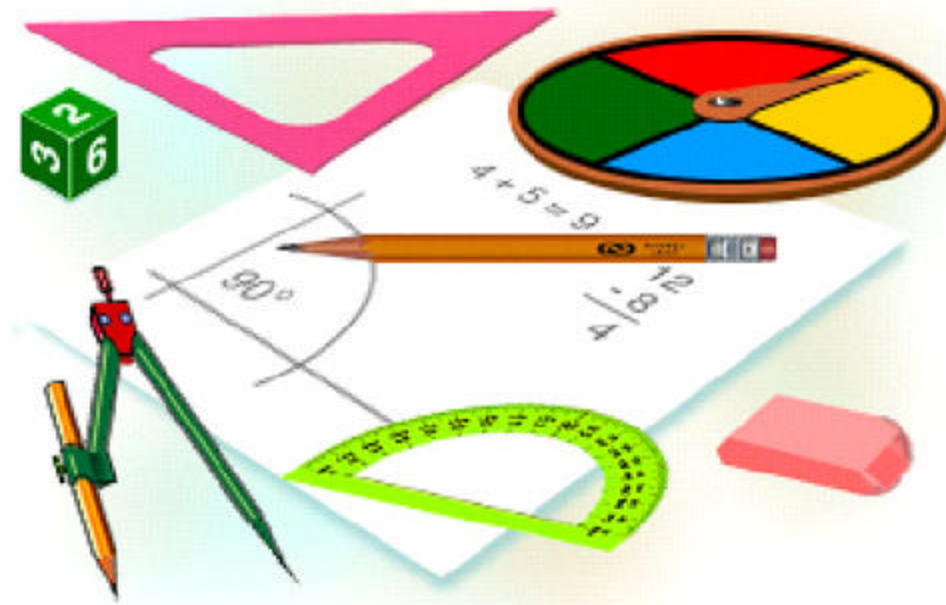


# The Next Step

## Mathematics Applications for Adults



**Teacher's Manual:**

**Post-Test Answer Keys**

# SECTION 2

## Post-Test Answer Keys

"Our greatest glory is not in never falling, but in  
rising every time we fall."

-Confucius

# OUTLINE

## Mathematics – Teacher’s Manual

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## Post-Test Answer Keys

### Book 14011

1. 7   2. 2   3. 55   4. seven   5. forty-seven  
6. 2, 5, 6   7. 58, 60, 61   8. 94, 96, 98   9. 15, 17, 21  
10. 25, 40, 55   11. 20, 50, 60   12. 8   13. 5   14. 70  
15. 97   16. 6   17. 8   18. 7   19. 16   20. 11  
21. 4   22. 6   23. 0   24. 1   25. 6   26. 3 o'clock  
27. 6 o'clock

### Book 14012

1. 11   2. 290   3. forty  
4. five hundred and sixty-three   5. 6, 12, 16  
6. 96, 97, 100   7. 63, 69, 71   8. 10, 40, 50  
9. 60, 65, 75   10. 262   11. 881   12. 3   13. 7  
14. 77   15. 970   16. 9   17. 101   18. 784   19. 31  
20. 221   21. 23   22. 521   23. a. <   b. <  
24. \$5.55   25. 9:10   26. 7:35   27. 18 C  
28. Thursday   29. April

### Book 14013

1. 782   2. 416   3. six hundred and ninety-seven  
4. three hundred and sixty-five   5. 87, 93, 95  
6. 651, 652, 655   7. 70, 85, 90   8. 20, 50, 60  
9. 64, 66, 70   10. 632   11. 188   12. 3   13. 4  
14. 467   15. 83   16. 815   17. 802   18. 6475

19. 26   20. 235   21. 442   22. 3277  
23. a. <   b. >   24. a. 36   b. 15   c. 9  
25. a. XIX   b. XXXVII   c. XXII   26. 42  
27. 9   28. 20   29. 60   30. 12   31. 14   32. 3  
33. 72   34. \$1295   35. 79 points   36. 24 goals  
37. 18 pens   38. \$175   39. 3   40.  $\frac{1}{4}$    41.  $\frac{3}{8}$   
42. 1:36   43. \$11.92   44. \$2.02   45. 2.5 m  
46. 4300 g   47. 1600 ml   48. \$11.41   49. 2:30 a.m.  
50. .96 m   51. 45 degrees

### Book 14014

1. 1416   2. 604  
3. one thousand, eight hundred and ninety-three  
4. five hundred and sixty-three   5. 6785, 6789, 6790  
6. 890651, 890652, 890655   7. 30, 45, 50  
8. 30, 60, 70   9. 94, 96, 100   10. 73, 75, 77  
11. 2486   12. 853184   13. 6   14. 2   15. 374  
16. 642   17. 6989   18. 86979   19. 594988  
20. 356   21. 4435   22. 15992   23. 196487  
24. a. <   b. <   25. a. 26   b. 5   c. 19  
26. a. XXVI   b. XV   c. XXXVIII   27. 23  
28. 741   29. 2570   30. 12600   31. 39744  
32. 39 r 13   33. 13   34. 200 r 3   35. 768  
36. 4 r 35   37. 16 pounds   38. 31 years  
39. 600 players   40. 3 hours   41. \$16   42. 4  
43. 4   44.  $\frac{1}{6}$    45.  $\frac{3}{5}$    46. 6:59   47. \$2.06  
48. \$2.95   49. 325 cm   50. 3.5 g   51. 2400 ml  
52. \$11.86   53. 720 minutes   54. 48 grams of fat  
55. 4 degrees   56. a. 6   b. 31   57. 4 hours

- 58.** 72 hours    **59.** 2 minutes    **60.** 02/04/18  
**61.** 12 oranges for 99 cents    **62.** 28 inches    **63.** 98 feet

**Book 14015**

- 1.** 4893    **2.** 1016782  
**3.** one million, six hundred and five thousand, eight hundred and thirty-nine  
**4.** four thousand, two hundred and three  
**5.** 1000, 1003, 1004    **6.** 946014, 946015, 946018  
**7.** 10, 25, 30    **8.** 40, 50, 80, 90    **9.** 72, 74, 78  
**10.** 91, 93, 95    **11.** 6842    **12.** 480385    **13.** 5    **14.** 3  
**15.** 7469    **16.** 74997    **17.** 599887    **18.** 1204222  
**19.** 1578389    **20.** 835259    **21.** 149967    **22.** 55844  
**23.** 319719    **24.** a. <    b. >  
**25.** a. 748    b. 165    c. 1000  
**26.** a. CCLXXXVII    b. DCCCXLVII    c. DCXCIX  
**27.** 60    **28.** 457    **29.** 4165    **30.** 5432    **31.** 42300  
**32.** 58    **33.** 8    **34.** 4 r 50    **35.** 7 r 16    **36.** 3 r 95  
**37.** 2545 books    **38.** 35 people  
**39.** 300 baskets of beans    **40.** \$640    **41.** \$76  
**42.**  $2\frac{1}{3}$     **43.** 9    **44.**  $15\frac{1}{8}$     **45.**  $\frac{7}{8}$     **46.**  $\frac{4}{5}$   
**47.** 45    **48.** 10:25    **49.** 47 mm    **50.** 1000 mg  
**51.** 2400 L    **52.** \$6.25    **53.** 2 hours    **54.** No  
**55.** 4.5 degrees    **56.** a. 6    b. 15    **57.** 6 hours  
**58.** 41 weeks    **59.** 365 days    **60.** 97/09/17  
**61.** 6 pears for 59 cents    **62.** 68 cm    **63.** 72 ft<sup>2</sup>  
**64.** 8 m<sup>3</sup>    **65.** 23, 79, 97  
**66.** a. 2 x 2 x 5    b. 2 x 2 x 2 x 2 x 3    **67.** a. >    b. <  
**68.** a. .03, .033, .303, .33    b. 2.082, 2.8, 22.08, 22.28

69. a. .2, .0602, .06, .026    b. 55.0602, 55.06, 5.2, 5.026  
70. .2    71. 10.27    72. 207.907    73. 5.131  
74. 2.986    75. .1402    76. 1.3    77. .0007    78. 3.7  
79. \$346.50    80. \$3.60    81. 127.2 pounds  
82. a. Economics    b. 200 more students  
83. a. 3    b. 6    c. 13    d. 2  
84. a. 40    b. 40    c. 1991

### Book 14016

1. 93608    2. 1802549  
3. one million, nine hundred and thirty-eight thousand, five hundred and six  
4. three hundred and two thousand, four hundred and ninety-one    5. 2003, 2006, 2007  
6. 310651, 310652, 310655    7. 20, 35, 40  
8. 30, 40, 70, 80    9. 94, 96, 100    10. 67, 69, 71  
11. 4386    12. 852934    13. 3    14. 9    15. 24603  
16. 83789    17. 86979    18. 594988    19. 149143  
20. 188964    21. 20949    22. 2951    23. 98646  
24. a. >    b. <    25. a. 165    b. 1847    c. 699  
26. a. MCDXCII    b. DCCLXXVI    c. CCXV  
27. 4700    28. 4002    29. 3108    30. 2360  
31. 723    32. 9    33. 4 r 15    34. 5 r 21    35. 2 r 101  
36. 67    37. 5873 feet    38. 1134 kilometers  
39. 375 students    40. 6 hours    41. \$222    42.  $2\frac{2}{5}$   
43. 24    44.  $\frac{38}{7}$     45. 26  $\frac{13}{16}$  pounds    46.  $\frac{2}{3}$   
47. 12    48. 10:45    49. .188 km    50. 2000 g  
51. 4000 ml    52. \$72    53. 2400 minutes  
54. 306 millimeters    55. 12.4 degrees

- 56. a. 3 b. 10 57. 432000 seconds 58. 1728 hours**  
**59. 24 hours 60. 94/06/02**  
**61. 12 oranges for 99 cents 62. 28 cm 63. 10 in<sup>2</sup>**  
**64. 3240 in<sup>3</sup> 65. 91, 53**  
**66. a. 2 x 2 x 2 x 2 x 2 x 2 b. 2 x 2 x 2 x 2 x 5**  
**67. a. < b. >**  
**68. a. .061, .106, .16, .6 b. 4.017, 4.02, 44.007, 44.2**  
**69. a. .45, .405, .4, .045 b. 33.32, 33.304, 3.4, 3.04**  
**70. .3 71. 2.465 72. .847 73. 9.143 74. 11.63**  
**75. 10.971 76. 49.2 77. 3.8 78. 50 79. 7.3**  
**80. 370 81. .496 82. .0004 83. \$970.32**  
**84. 272 kilometers 85. 5 yards**  
**86. a. 1991 b. 1993 c. B d. D**  
**87. a. A1 b. 303 stamps c. 6 stamps d. 203 stamps**  
**88. a. 6 b. 8 c. oranges d. 2 e. 26**  
**89. a. 101 degrees b. July 1 and July 4 90. 49000**  
**91. 26000000 92. 51 words per minute 93. 7/9**  
**94. 8/15 95. 9 4/15 96. 1/3 97. 1/4 98. 2 37/40**  
**99. 1 2/7 100. 13/27 101. 6 102. 3/5**  
**103. 1 9/16 104. 27 pounds 105. 4 1/2 pounds**  
**106. 18 students 107. 3 1/25 108. .86**  
**109. 145 km 110. 3 hours 111. 1200 km 112. 2/5**  
**113. 60% 114. .08 115. 3% 116. 25% 117. 90**  
**118. 400 119. \$40 120. \$18 121. 12%**  
**122. 440 parts 123. \$640 124. \$240**  
**125. 12 hours and 20 minutes**  
**126. 16 years and 9 months or 6 3/4 years 127. \$2.93**  
**128. \$6.02 129. \$19.50 130. 39.6 m<sup>2</sup>**



## Book 14017

1. 84442
2. 82307
3. 1693321
4. 1913811
5. 1776930
6. 56882
7. 33583
8. 379148
9. 28011
10. 1685088
11. 1897231
12. 56077
13. 32880
14. 13826916
15. 639
16. 298 r 12
17. 903
18. 67
19. 76
20. 925 calories
21. \$2563
22. 3162000 miles
23. \$11500
24. 264 players
25.  $4\frac{1}{6}$
26. 15
27.  $2\frac{47}{120}$  hours
28.  $\frac{5}{7}$
29. 360 cm
30. 3000 mg
31. .0032 kl
32. 2800 grams
33. 7, 41, 29
34. a.  $3 \times 3 \times 5$  b.  $3 \times 37$
35. .2
36. 2.8097
37. 93.277
38. 2.507
39. .0708
40. 836.368
41. 17040.1704
42. 83000
43. 9310
44. \$2.17
45. 7.02 kilograms
46. 123.15 meters
47. a. February b. 35000
48. a. 23 b. March
49. 712 km
50.  $1\frac{1}{2}$
51.  $1\frac{2}{9}$
52.  $12\frac{17}{30}$
53.  $\frac{1}{5}$
54.  $\frac{7}{18}$
55.  $14\frac{25}{48}$
56.  $1\frac{4}{5}$
57.  $5\frac{1}{7}$
58.  $38\frac{1}{2}$
59.  $14\frac{2}{3}$
60.  $2\frac{13}{36}$
61. 32 cans
62.  $11\frac{2}{3}$  revolutions per minute
63. \$9
64.  $3\frac{3}{40}$
65. .5
66. \$3.78
67. \$66.17
68. 18 inches
69.  $\frac{1}{25}$
70. 18%
71. .19
72. 80%
73. 80%
74. 13.554
75. 875
76.  $16\frac{2}{3}\%$
77. \$194
78. 10 days
79. 125
80. 6
81.  $5 \times 5 \times 5$
82.  $\frac{8}{5}$
83. 4:10
84. 4:5
85. -8
86. 10
87. 48
88. -3
89. 9 degrees
90. -15 millibars
91. a.  $x + 9$  b.  $2y$  c.  $z - 1$
92. a. 4 b. 26 c. 6

## Book 14018

1. 24768
2. 38533
3. 1868038
4. 2235487
5. 2450189
6. 505843
7. 742950
8. 169152
9. 121458
10. 100600
11. 13587120
12. 30400
13. 41952
14. 7563250
15. 764
16. 926
17. 463 r 15
18. 75
19. 58
20. 595 kg
21. 319074
22. \$1800
23. 9 kilometers per hour
24. 206 people
25.  $4\frac{2}{3}$
26. 35
27.  $14\frac{1}{4}$  hours
28.  $\frac{7}{9}$
29. 2250 mm
30. 17000 g
31. .6 L
32. 2 L
33. 13, 37, 43
34. a.  $5 \times 5$  b.  $2 \times 2 \times 31$
35. .24
36. 39.617
37. 65.303
38. .068
39. 3.0014
40. 44.7468
41. 8.29376
42. 62000
43. 490
44. \$59.15
45. 23 miles
46. 644.32 km
47. a. 182 lbs. b. 59
48. a. 32000000 b. 1983
49. \$6493
50.  $1\frac{1}{5}$
51.  $1\frac{1}{6}$
52.  $15\frac{19}{40}$
53.  $\frac{3}{19}$
54.  $\frac{7}{30}$
55.  $5\frac{7}{18}$
56. 21
57.  $4\frac{3}{8}$
58.  $16\frac{1}{4}$
59.  $4\frac{4}{5}$
60.  $1\frac{29}{41}$
61. 6 loaves of bread
62.  $3\frac{5}{6}$  pounds
63. \$22.75
64.  $48\frac{1}{50}$
65. .57
66. 614 kilometers per hour
67. \$8.15
68. 6
69.  $\frac{4}{5}$
70. 60%
71. .028
72. .9%
73. 90%
74. .448
75. 305
76. 5%
77. 80 cents
78. \$4.20
79. 85
80. 93
81.  $10 \times 10 \times 10$
82.  $\frac{9}{4}$
83. 6:14
84. 2:3
85. 17
86. -10
87. -90
88. 8
89. 24 degrees
90. 28 points
91. a.  $15 \div w$  b.  $3v$  c.  $u - 7$
92. a. 14 b. 3 c. 5
93. 36
94. 40
95. 485
96. 72
97. 1125
98. 3660.25
99.  $91^\circ$  or 3486784401
100. 40
101. \$100
102. parallel
103. a. acute b. obtuse
104.  $76^\circ$
105.  $42^\circ$
106. a.  $30^\circ$  b.  $150^\circ$  c.  $30^\circ$

- 107. a.  $100^\circ$  b.  $80^\circ$  c.  $100^\circ$**   
**108. a. radius b. diameter c. arc d. circumference**  
**109. a. parallelogram b. rhombus c. trapezoid d. rectangle**  
**110. isosceles**  
**111. a. cylinder b. cube c. cone d. rectangular prism**  
**112. 5 cm 113. a. 40 cm b. 24 m**  
**114. 87.92 inches 115.  $49 \text{ cm}^2$  116.  $48 \text{ m}^2$**   
**117.  $153.86 \text{ in}^2$  118.  $185 \text{ cm}^2$  119. 7 inches**  
**120. a.  $42 \text{ cm}^3$  b.  $471 \text{ m}^3$  121.  $27 \text{ m}^3$**   
**122.  $12.56 \text{ ft}^2$  123.  $136 \text{ ft}^2$  124. 1309 meters**  
**125. 40 126. 2 127. 10 128. 8**  
**129. a. 36 b. 18 130. a. British Isles b. French**  
**131. Make sure that the points are properly plotted.**  
**132. Make sure that the points are properly plotted so that the line passes straight through them all.**

### Book 14019

- 1. \$362 2. \$30 3. 3770 km 4. 9 buses**  
**5. 188 papers 6.  $2 \frac{2}{3}$  7. 33 8.  $25 \frac{5}{8}$  miles**  
**9.  $\frac{1}{50}$  10. .00522 m 11. .071 kg 12. 6000 ml**  
**13. .4 14. 13.625 15. 4.125 16. 2.375 17. 1.525**  
**18. .004 19. .0216 20. .0098 21. 155 22. \$21**  
**23.  $1 \frac{1}{6}$  24.  $1 \frac{7}{12}$  25.  $26 \frac{7}{20}$  26.  $\frac{1}{4}$**   
**27.  $11 \frac{5}{16}$  28.  $8 \frac{8}{15}$  29.  $\frac{1}{4}$  30. 15**  
**31.  $14 \frac{7}{16}$  32.  $\frac{2}{3}$  33.  $\frac{28}{75}$  34.  $2036 \frac{4}{5}$**   
**35. 27.006 36.  $\frac{3}{50}$  37. 70% 38. .001 39. 450%**  
**40. 75% 41. 2.75 42. 180 43. 1400 44. 29.5**  
**45.  $\frac{8}{3}$  46. 3:2 47. 3 48. 12 49. -18 50. 31**  
**51. a.  $t - 12$  b.  $s \div 5$  c.  $r - 4$**

52. a. 0   b. 21   c. 17   53. 60   54. perpendicular  
55. a. obtuse   b. right   56.  $49^\circ$    57.  $97^\circ$   
58. a.  $88^\circ$    b.  $92^\circ$    c.  $88^\circ$   
59. a.  $95^\circ$    b.  $95^\circ$    c.  $85^\circ$   
60. a. radius   b. chord   c. arc   d. diameter  
61. a. trapezoid   b. square   c. parallelogram  
d. hexagon   62. equilateral  
63. a. cube   b. sphere   c. cone   d. cylinder  
64. 6 cm   65. a. 17 m   b. 33 cm   66. 21.98 feet  
67.  $44 \text{ m}^2$    68.  $22.5 \text{ cm}^2$    69.  $1384.74 \text{ cm}^2$   
70.  $143 \text{ ft}^2$    71. 5 cm   72. a.  $64 \text{ yd}^3$    b.  $4106 \frac{2}{3} \text{ ft}^3$   
73. 21   74. 2   75. 18   76. 8   77. \$100  
78. Make sure that the points are properly plotted.  
79. Make sure that the points are properly plotted so  
that the line passes straight through them all.   80. 3  
81. 9 km   82. 12 m   83. 75 feet   84. 13 miles  
85. a. d   4   b.  $c < 3$    c.  $z > 0$    d. b   4  
86. a.  $10a - b$    b.  $-1p + 4q + 1$    c.  $-6d + 9c$   
87.  $n < 4$    88. \$5973.08   89. \$275   90. \$480  
91. a. \$719.25   b. \$19.25  
92. a. \$1123.94   b. \$323.94   93. \$374   94. 2  
95.  $\frac{1}{50}$

## Post-Test Answer Keys

### Version 2

#### Book 14011

1. 9   2. 2   3. 8   4. 1   5. 46   6. 5   7. 5   8. 4  
9. 6   10. 11   11. 42   12. 36, 39, 40   13. 24  
14. seventy-four   15. 8   16. three   17. 5   18. 4  
19. 80, 82, 84   20. 8   21. 6   22. 8 o'clock  
23. 21, 23, 24   24. 40, 70, 80   25. 12 o'clock  
26. 91, 93, 97   27. 40, 55, 70

#### Book 14012

1. 12   2. 341   3. 45, 51, 53   4. June  
5. six hundred and thirty-five   6. 9   7. 70, 75, 85  
8. 1   9. 203   10. 12   11. 89   12. 35 C  
13. 996, 997, 1000   14. 24, 30, 34   15. 888   16. 8  
17. 3:50   18. 17, 23, 25   19. a. =   b. >   20. 192  
21. \$2.48   22. sixty   23. 776   24. 34   25. 101  
26. 4:05   27. Wednesday   28. 350   29. 226

#### Book 14013

1. 48 499, 502   2. \$10   3. 5:35   4. 898   5. 110  
6. 1577   7. 70 cents   8. 1130   9. 11 C   10. 102  
11. five hundred and thirty-six   12. 27   13. 614  
14. 3   15. 10, 40, 50   16. 2   17. 659   18. 7

19. 378 km    20. 32    21. 90, 92, 96    22. \$1.55  
23. 12 feet    24. 8    25. 60, 75, 80    26. 7  
27. a. 24    b. 38    c. 2  
28. nine hundred and seventy-six    29. \$46    30. 622  
31. 881    32. 6.61 m    33. a. <    b. >  
34. 60 minutes    35. 8600 mg    36. 287    37. \$26.30  
38. 11    39.  $\frac{3}{8}$     40. 202    41.  $\frac{2}{3}$     42. 48 people  
43. 610 cl    44. 12    45. 140    46. 77, 83, 85  
47. 25000 cm    48. 3  
49. a. XXXIX    b. XXVII    c. XII    50. 84  
51. 7879

### Book 14014

1. 7838, 7841, 7842    2. 71    3. 531848    4. 60 sec  
5. 02/06/13    6. \$18    7. 2 r 56    8. 61 r 3    9. 1604  
10. 416    11. 36 r 8    12. 3    13. 65, 67, 69    14. 158  
15. 10, 40, 50    16. 687    17. 3 cookies each    18. 24  
19. 1425    20. 9896    21. 69798    22. 2530 m  
23. 743    24. 38, 40, 44    25. 26936    26. 26100  
27. 9    28. 60, 75, 80    29. 2325    30.  $\frac{3}{4}$   
31. a. <    b. <    32. 2279    33. 41472    34. 5.3 kg  
35. 906500, 906501, 906504    36. 24 hrs    37. 20 cm  
38. \$20878    39. 6 hrs    40. six hundred and thirty-five  
41. 16.8 kg    42. 1 r 76  
43. a. XVI    b. XXXV    c. XXVIII    44. 5:06  
45. 12 degrees    46. 5720  
47. one thousand, nine hundred and thirty-eight  
48. 25 lb of grass seed for \$27    49. \$7638

50. 96 meters    51. 372 km    52. 67 cents    53. 949885  
54. 13868    55. 2400 minutes    56. 4200 L  
57. a. 6    b. 27    58. 8    59.  $\frac{1}{4}$   
60. a. 6    b. 25    c. 39    61. \$1.48    62. 4682  
63. \$8.05

### Book 14015

1. a. 10    b. 40    c. 45    2. 67 cm    3. 94/07/02  
4. \$261    5. 740 cm  
6. a. .602, .6, .26, .02    b. 50.605, 50.065, 2.5, 2.065  
7. 1000 g    8. a. 2 x 31    b. 2 x 2 x 3 x 7  
9. 41, 59, 79    10. 460131, 460132, 460135  
11. 21 days    12. \$59.65    13. 591328  
14. 5 pears for 49 cents  
15. a. July    b. June to July    c. April    16. 8:15  
17. 343 cm<sup>3</sup>    18. \$5256    19. 4697    20. 3 days  
21. 991, 994, 995    22. 1 r 129    23. .0006  
24. 20, 35, 40    25. 58 pages    26. \$5.37    27. 24.1  
28. 279.178    29. 230 millimeters    30. 24  
31. 358480    32. 40    33. 4200    34. a. 10    b. 15  
35.  $\frac{1}{2}$     36. 1  $\frac{1}{3}$     37. a. 348    b. 65    c. 500  
38. 16    39. 1.518    40. 10 hrs    41. 998875  
42. 49977    43. 1002870    44. 23400  
45. a. <    b. <    46. a. >    b. <    47.  $\frac{7}{8}$   
48. a. February and April    b. March    49. 5135  
50. .2247    51. 568.755 km    52. 11 r 16    53. 783899  
54. 4    55. \$1082    56. 3984    57. one million, five  
hundred and eight thousand, three hundred and ninety-six  
58. 3.983    59. 8426

- 60.** two thousand, three hundred and four    **61.** 234945  
**62.** 5452    **63.** 7 C    **64.** 2.316    **65.** 852593    **66.** .4  
**67.** \$638    **68.** 47, 49, 51    **69.** 900 m    **70.** 78236  
**71.** 1205477    **72.** 7    **73.** 9.64    **74.** 50, 60, 90, 100  
**75.** 6 r 19    **76.** 25  
**77.** a. DCCCLXXII    b. CDLXXVIII    c. CMXCVI  
**78.** 3  
**79.** a. .3, .323, .33, .333    b. 8.022, 8.2, 22.82, 28.02  
**80.** 44 wks    **81.** 82, 84, 88    **82.** \$176.32    **83.** 574  
**84.** 4/3

### Book 14016

- 1.** a. \$400    b. July    **2.** \$4    **3.** 60    **4.** 2/5  
**5.** 45 specials    **6.** 24.57    **7.** 4 1/20    **8.** 96461  
**9.** 5 22/35    **10.** 9 oranges for 91 cents    **11.** 252 cm<sup>3</sup>  
**12.** a. 23    b. 17    c. 327    d. 59    **13.** a. German Shepherd and Golden Retriever    b. 40000    **14.** 2:45  
**15.** 64000000    **16.** 24    **17.** \$12220    **18.** a. <    b. <  
**19.** 20003    **20.** 3620    **21.** a. <    b. >    **22.** 84  
**23.** 2    **24.** 6 ¼ hours    **25.** a. 60    b. May    c. Ann  
**26.** 191443    **27.** 5/12    **28.** 3504    **29.** 4992  
**30.** 15466    **31.** 327    **32.** 1 3/10    **33.** 12/41  
**34.** .964    **35.** 69798    **36.** 14/75    **37.** 26 25/48  
**38.** 12 cm<sup>2</sup>    **39.** 236 people    **40.** \$6.94  
**41.** a. .54, .45, .054, .04    b. 33.23, 33.043, 4.3, 4.03  
**42.** .9    **43.** 159642  
**44.** a. MCMXLII    b. DCCLXVII    c. CLII  
**45.** 7.3 C    **46.** 12 r 1    **47.** 74, 76, 80    **48.** 02/06/18  
**49.** 949885    **50.** 93, 95, 97



51. a.  $2 \times 23$     b.  $2 \times 3 \times 13$     52. 7 hours 5 minutes  
53. \$286    54. 142.5    55. \$2.55    56. \$350  
57. \$522    58. 85%    59. \$6.75    60. 550  
61. 3 hours 21 minutes    62. 75 cents    63.  $11.05 \text{ m}^2$   
64. \$29.95    65. 4 hours    66. 12 cashiers    67.  $2 \frac{7}{10}$   
68.  $2\frac{1}{4}$  hours    69. 8.86 km    70. 75%    71.  $\frac{7}{10}$   
72. \$285    73. one million, three hundred and eighty-five thousand, and sixty-nine    74. 20.27    75. 17%  
76. .03    77. 20%    78. \$34.50    79. two hundred and four thousand, nine hundred and thirteen    80. 86000  
81. 266 cm    82. .0008    83. \$500    84. 60, 75, 80  
85. 1904805    86. 360 secs    87. 92.4    88. 3 r 35  
89. a. 1165    b. 847    c. 199    90. 25903    91.  $5 \frac{5}{6}$   
92. 8643    93. \$1090    94. 126    95. 6030 centimeters  
96. .478    97. 57707    98. 80    99. 18.5    100. 30.8  
101. 21 days    102. a. 0    b. 10    103. 8000 L  
104. \$60.48    105.  $1 \frac{3}{5}$     106. 7400    107. .36 grams  
108. 88.001 m    109. 7, 19    110. 11715    111. 6.326  
112. 120 hrs    113. 6 hrs    114. 341    115.  $\frac{1}{3}$   
116. 6    117. \$192    118.  $\frac{38}{5}$   
119. 1004, 1007, 1008    120. 106495, 106496, 106499  
121. 4000 mg    122. .57    123. 2 r 11    124.  $\frac{2}{5}$   
125. 50, 60, 90, 100    126.  $\frac{3}{4}$     127. 4.627    128. 2  
129. 529348  
130. a. .016, .1, .601, .61    b. 1.074, 40.074, 42, 42.4

### Book 14017

1. 8144    2. 43.497    3. 1933225    4. 47950.4795  
5.  $\frac{13}{18}$     6. 39.718    7. 156208    8. 175 people

9.  $2\frac{2}{5}$  10. 2, 11 11. a. C b. 22 12. 20%  
13. 60% 14.  $2\frac{4}{21}$  15. 1<sup>st</sup> floor 16. -14  
17. 6840 18. a.  $2n - 4$  b.  $5n + 4$  19.  $7\frac{53}{100}$   
20. 75 21. 40 helpings 22.  $\frac{5}{6}$   
23. a. Seoul b. 8 million 24. 2138127 25. 845334  
26. 11730 27. 30120  
28. a.  $2 \times 3 \times 3 \times 3$  b.  $2 \times 3 \times 37$  29.  $40\frac{55}{78}$   
30. 39 31. 147666 32. 15% 33.  $\frac{2}{25}$  34. 4.468  
35. 13 hours 36. .91 37. 3 38. 9 39. 7520  
40. 56 yards better 41. 659 42.  $3 \times 3 \times 3$   
43. 32000 44. \$60.07 45. 235040 46. .32  
47. .0023 L 48.  $4\frac{1}{2}$  49.  $\frac{1}{6}$  50. 526 51.  $\frac{18}{31}$   
52. -3 53. 6300 m 54. 7:5 55. 37 56. 35.59 kg  
57. 5261382 58. 28814 59. 1769316 60. 145 cm  
61.  $11\frac{23}{30}$  62. 8200 milligrams 63. \$175  
64. 8.2079 65.  $5\frac{12}{13}$  66.  $66\frac{37}{252}$  67. 25%  
68. 1536 children 69. .8 70. 9:21 71.  $\frac{2}{3}$   
72. a. 14 b. 7 c. 69 73. 8000 g 74. 83  
75. 251 76. 5 77. 75 78. 61240 79. \$11.60  
80.  $\frac{11}{19}$  81. 6 82. 15.6 meters 83.  $\frac{7}{6}$   
84. 1759.902 85. 55826 86.  $3\frac{13}{15}$  87. 581 r 17  
88. 80 m 89. .5001 90.  $\frac{37}{45}$  91. 52904  
92. \$39.86

### Book 14018

1. 91561 people 2. 48300 3. 12.4926 4.  $12\text{ cm}^2$   
5. Make sure that the points are properly plotted.  
6.  $5\frac{1}{2}$  days 7. 335 8. 8 costumes 9. 68.2

10. a.  $96 \text{ m}^3$  b.  $3768 \text{ cm}^3$  11. a. 8 b. 7 12. 181  
13.  $46.25 \text{ cm}^2$  14. 25 15. Make sure that the points are properly plotted so that the line passes straight through them all. 16.  $10 \times 10$  17. 564930  
18.  $3375000 \text{ cm}^3$  19. 150 cm 20.  $1 \frac{7}{37}$   
21. 36891 22. 21 centimeters 23. 177 cm  
24. 2346 25. a.  $55^\circ$  b.  $125^\circ$  c.  $55^\circ$  26.  $7\frac{1}{4}$   
27.  $80 \frac{6}{25}$  28. 17 29. a.  $5n + 4$  b.  $n - 2$   
30. 77376 31. 39 32.  $-34.5^\circ\text{C}$  33.  $\frac{3}{5}$  34. 16%  
35. 14641 36. .2 kl 37. 1354891 38. 151000  
39. .15 40. 1461 41.  $2 \frac{21}{23}$  42. 66 43. 59361  
44. 9 45. .013 46. 7 cups 47. .082 48.  $14.6 \text{ m}^2$   
49. 7000 L 50.  $64^\circ$  51. \$2.52 52. 198  
53. 2520 m 54. 13824 55. \$84.52 56.  $21 \frac{19}{132}$   
57. a.  $95^\circ$  b.  $85^\circ$  c.  $95^\circ$  58. 28345 59. 14 cents  
60.  $\frac{23}{30}$  61.  $\frac{22}{35}$  62. .7% 63. isosceles  
64. 80% 65. 31, 73 66.  $27 \frac{11}{18}$   
67. a.  $2 \times 2 \times 13$  b.  $2 \times 2 \times 103$  68. perpendicular  
69.  $66.4 \text{ m}^2$  70. 19 71. 59 72. 2470 73. 9400  
74. 11.20265 75. 1680397 76. 8200 meters 77. a.  
trapezoid b. rhombus c. parallelogram d. rectangle  
78. a.  $17^\circ\text{C}$  b. 9 - 10 79.  $\frac{9}{56}$  80. 160  
81. 78.713 82. .34 83. 10 m  
84. 139480 kilometers 85. 5:4 86.  $49^\circ$  87. 37.223  
88.  $\frac{10}{11}$  89. 109 90. 25 jumps 91. 12715660  
92.  $3 \frac{12}{17}$  93.  $36 \text{ m}^2$  94. 8  
95. a. 32 m b. 27 cm 96. 2850 r 13  
97. 27.5 hours 98. 2240 99. 22 degrees 100. 20  
101. 64 tins 102.  $28.26 \text{ cm}^2$  103.  $\frac{8}{5}$  104. 1.3139  
105. 358432 106. -6 107. -40 108. \$6250.66  
109.  $\frac{8}{19}$  110. 22 r 1

111. a. Northern Canada    b. 595339.8 km<sup>2</sup>    112. 10%  
 113. 320300    114. 8    115. 2501912    116. 38  
 117. 254577    118. 71000 mg    119. 103  
 120. It would have to be able to hold 4 cups  
 121. a. radius    b. diameter    c. arc    d. circumference  
 122. 10    123. a. obtuse    b. right  
 124. a. cylinder    b. rectangular prism    c. cone  
 125. 122.46 centimeters    126. .75  
 127. 6<sup>10</sup> or 60466176    128. 31238812  
 129. 26825 baskets    130. 10:18    131. 1/3  
 132. a. 60    b. 142    c. 5

### Book 14019

1. 20 5/17    2. 11¼    3. 8/17    4. **Make sure that the points are properly plotted so that the line passes straight through them all.**    5. \$515    6. 21 m<sup>2</sup>    7. 90  
 8. 193    9. a. 3a + 2b    b. -2p + q + 3    c. 10c - 6d  
 10. a. 93°    b. 87°    c. 93°    11. 1 2/21    12. 3 11/24  
 13. .0089    14. 44    15. 48 teachers    16. 1 3/10  
 17. .036 g    18. a. 23 cm    b. 23 m  
 19. a. t - 21    b. s/7    c. r - 6    20. 112 cm<sup>2</sup>    21. \$22  
 22. a. 11    b. 28    c. 1693    23. 57    24. 20/63  
 25. **Make sure that the points are properly plotted.**  
 26. 24:9    27. n < 4    28. 540%    29. 11 meters  
 30. a. cube    b. sphere    c. cone    d. cylinder  
 31. -20    32. .002    33. 11 1/12 hours    34. 76°  
 35. 11.271    36. 70.064    37. .00225    38. \$42  
 39. 5 7/10    40. 452.16 m<sup>2</sup>    41. \$352    42. 1242 cm<sup>2</sup>  
 43. .75    44. 18 m    45. a. \$2650    b. \$150

46. a. d 3 b.  $c < 3\frac{1}{2}$  c.  $z > \frac{2}{3}$  d. b 4  
47. 12 m 48.  $56\frac{57}{77}$  49.  $\frac{13}{15}$  50.  $\frac{4}{17}$   
51. \$288 52. 17 53. 22.749 54. 12 sandwiches  
55. 12 56. 852 57. 36 58. 20 m  
59. a. radius b. chord c. arc d. diameter  
60. 25.12 m 61. 2.955 62.  $\frac{2}{3}$  63. 7000 L  
64. 20% 65. \$290.50 66. a. \$2185.27 b. \$758.27  
67. 10.457 68.  $\frac{9}{4}$  69. .0156 70. 28 71.  $\frac{9}{100}$   
72. 163  
73. a. trapezoid b. hexagon c. parallelogram  
74. a.  $104^\circ$  b.  $104^\circ$  c.  $104^\circ$  75. 26 ft 76. 7  
77. 85% 78.  $-\frac{1}{2}$  79. equilateral 80. .03162  
81. perpendicular 82.  $2\frac{2}{5}$  83. \$47476 84. 3  
85. 50.3125 86. 210 87. 3025 88. 3 89. \$3045  
90.  $3068\frac{1}{5}$  91. a. acute b. obtuse 92.  $1\frac{3}{7}$   
93.  $142^\circ$  94. 5 95. a.  $512\text{ m}^3$  b.  $6028.8\text{ cm}^3$