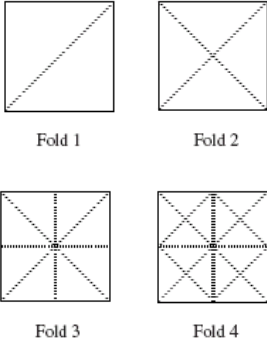


# Answer Key

1.  $19 \frac{5}{12}$
2.  $14 \frac{5}{9}$
3.  $2 \frac{5}{18}$
4. 50
5. 5
6.  $\frac{1}{12}$
7.  $\frac{4}{27}$
8. a)  $3 : 5 = \frac{6}{5} : 2$  (miles)  
b)  $1 \frac{1}{5} + 2 = 3 \frac{1}{5}$  (miles)
9.  $\frac{24}{1 \frac{3}{5}} = 15$  ft
10.  $\frac{7}{2} \times \frac{5}{3} \times \frac{18}{5} = 21$  cu ft
11.  $\frac{1}{14}$
12.  $\frac{9}{25}$
13.  $\frac{14}{15}$
14.  $4 \frac{2}{3}$
15.  $\frac{2}{7}$
16. 8
17.  $\frac{2}{3}$
18.  $\frac{9}{5}$
19.  $\frac{1}{4}$
20.  $\frac{110}{7}$
21.  $3\sqrt{5}$
22.  $3\sqrt{14}$
23.  $4\sqrt{15}$
24.  $6\sqrt{7}$
25.  $4\sqrt{21}$
26. 36
27. 324
28. 32400
29. 3.24
30. 12100
31. 729
32. 8000
33.  $\frac{1}{1000000} = 1/1000000$
34.  $\frac{1}{144} = 1/144$
35.  $\frac{1}{27} = 1/27$
36.  $\frac{16}{25}$
37.  $\frac{1}{16}$
38.  $\frac{1}{125}$
39.  $\frac{1}{64}$
40.  $\frac{8}{125}$
41.  $\frac{216}{125}$
42.  $\frac{1}{5}$
43. 0.1
44. 0.5
45.  $\frac{2}{11}$
46.  $\frac{3}{10}$
47.  $\frac{2}{5}$
48.  $\frac{1}{2}$
49.  $\frac{4}{3}$
50.  $\frac{10}{7}$
51.  $\frac{5}{4} = 1.25$
52.  $\frac{10}{9}$
53.  $\frac{5}{2} = 2.5$
54.  $\frac{5}{3} = 1 \frac{2}{3}$
55.  $\frac{8}{5} = 1.6$
56. -8
57. -10
58. -13
59. -12
60. -15
61. 3
62. -9
63. -7
64. 5
65. -1
66. Since the average of B, C and D is 14, the total of the four boys is  
 $10 + 14 \times 3 = 52$ ,  
thus the average of the four boys is  
 $52 \div 4 = 13$ .
67. C  


Fold 1      Fold 2

Fold 3      Fold 4

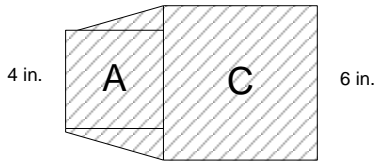
## MAP 260 (T2) Issue 2

68.  $2^3 = 8$   
 $8(20) = 160 \text{ cm}^3$

69.  $60 \div 2 = 30$  (half-perimeter)  
 Since the ratio is 2:1, the partition is  $\frac{2}{3}$  and  $\frac{1}{3}$ .  
 $30 \times \frac{2}{3} = 20$  (length)  
 $30 \times \frac{1}{3} = 10$  (width)  
 $20 \times 10 = 200 \text{ ft}^2$  (area)

70. total perimeter = 16  
 base area = 9  
 surface =  $9 \times 2 + 16 = 34 \text{ cm}^2$

71.  $\frac{1}{2}(4+6)(4) = 20 \text{ in}^2$  (area of trapezoid)  
 $6^2 = 36 \text{ in}^2$  (square area)  
 $20 + 36 = 56 \text{ in}^2$  (total)



72.  $30 \times 30 = 900$   
 $900 \times 6 = 5400 \text{ in}^2$

73. D  
 $14 + 22 + 30 = 66 \text{ cm}$

74.  $1 \text{ yd} = 36 \text{ in}$   
 $100 \text{ in} = \frac{100}{36} = \frac{25}{9} = 2\frac{7}{9} = 2 \frac{7}{9} \text{ yds}$

75.  $1 \text{ square yard} = (1 \text{ yard})^2$   
 $= (3 \text{ feet})^2 = 9 \text{ ft}^2$

$36 \text{ square yard}$   
 $= 36 \times 9 \text{ ft}^2$   
 $= 324 \text{ ft}^2$

76.  $\boxed{72} \times (1 + \frac{1}{8}) = 84$   
 or

$84 \div \frac{7}{8} = \boxed{72}$

77.  $84 \times (1 + \frac{1}{8}) = 98$

78. A

79. A  
 $\frac{12}{15} = \frac{4}{5} = 80\%$   
 $1 - 80\% = 20\%$

80. the greatest common multiple of (21, 28) = 84 sec

81.  $11\frac{9}{10} \div \frac{7}{3}$   
 $= \frac{119}{10} \times \frac{3}{7}$   
 $= 5.1 \text{ hour}$   
 $= 5 \text{ hrs \& } 6 \text{ mins}$

82.  $(12000 - 6000) \div 3 = \$2,000$

83.  $12000 - 4 \times 2000 = \$4000$

84.  $35 - 20 = 15$   
 $60 \times \frac{15}{20} = 60 \times \frac{3}{4} = 45$  (liters more to hold)  
 $60 + 45 = 105$  liters (capacity)

85.  $1 - \frac{1}{2} = \frac{1}{2}$  (one half left)  
 $\frac{1}{2} - \frac{1}{3} = \frac{1}{6}$   
 30 pages account for  $\frac{1}{6}$  of the book.  
 $30 \div \frac{1}{6} = 180$  pages

# Answer Key

- |                      |   |
|----------------------|---|
| 1. 78                | 43. $4\sqrt{10}$  |
| 2. 16                | 44. $6\sqrt{5}$   |
| 3. 6                 | 45. $9\sqrt{3}$   |
| 4. 4                 | 46. 16  |
| 5. 13                | 47. 100   |
| 6. 4                 | 48. 225   |
| 7. 5                 | 49. 3.61  |
| 8. 8                 | 50. 8000000   |
| 9. 8                 | 51. 512   |
| 10. 12               | 52. $\frac{1}{125} = 1/125$                             |
| 11. 12               | 53. $\frac{1}{4} = 1/4$                                 |
| 12. 48               | 54. $\frac{4}{9} = 4/9$                                 |
| 13. 5                | 55. $\frac{1}{8} = 1/8$                                 |
| 14. 4                | 56. 8   |
| 15. 10               | 57. $\frac{1}{30} = 1/30$                               |
| 16. 6                | 58. $\frac{1}{10} = 1/10$                               |
| 17. 8                | 59. $\frac{4}{3} = 1\frac{1}{3} = 4/3$                  |
| 18. 20               | 60. 5   |
| 19. 18               | 61. $3^3 = 27$  |
| 20. 15               | 62. 9   |
| 21. $152 + 19 = 171$ | 63. $(\frac{8}{5})^2 = 2\frac{14}{25} = 5\frac{14}{25}$ |
| 22. $72 + 27 = 99$   | 64. 25  |
| 23. $60 + 24 = 84$   | 65. 400   |
| 24. $72 + 21 = 93$   | 66. 900   |
| 25. $56 + 49 = 105$  | 67. 121   |
| 26. $84 + 36 = 120$  | 68. 8000  |
| 27. $117 + 65 = 182$ | 69. 64000   |
| 28. $99 + 11 = 110$  | 70. 121/100   |
| 29. $30 + 9 = 39$    | 71. 2   |
| 30. $30 + 9 = 39$    | 72. $2/3$   |
| 31. $48 + 8 = 56$    | 73. $2/5$   |
| 32. $90 + 4 = 94$    | 74. $2/11$  |
| 33. $390 + 52 = 442$ | 75. $-1/2$  |
| 34. $81 + 15 = 96$   | 76. -11   |
| 35. $42 + 12 = 54$   | 77. -13   |
| 36. $108 + 27 = 135$ | 78. -13   |
| 37. $180 + 15 = 195$ | 79. -18   |
| 38. $84 + 36 = 120$  | 80. -11   |
| 39. $144 + 36 = 180$ | 81. -1  |
| 40. $95 + 76 = 171$  | 82. 3   |
| 41. $4\sqrt{2}$      |   |
| 42. $3\sqrt{13}$     |   |

## MAP 260 (T2) Winter Packet (See you back on 1/6)

83. -2  
84. -2  
85. 0  
86. -14  
87. -18  
88. -11  
89. -14  
90. -15  
91. 8  
92. 4  
93. -6  
94. -4  
95. 6  
96. A  
97.  $20 \times 3.14 \times 20 = \underline{1256 \text{ in}^2}$   
98.  $3 \times 4 = 12$  (tiles)  
99.  $180 - 50 = 130$   
 $130 \div 2 = \underline{65}$   
100. B  
101. B  
102. A  
103.  $24\pi = 24 \text{ pi}$   
104.  $7\pi = 21.98$   
105. C  
 $1\frac{3}{2} = 2.5$   
106. D  
The circumference is  $52\pi$ .  
For two rounds, the distance is  $2 \times 52\pi = \boxed{104\pi}$   
107.  $450 \div 3 = 150 \text{ yd}$   
108.  $-36 + \square = 32$   
 $\square = 32 + 36 = 68$   
109.  $3 \times 6 = 18$  (not enough)  
 $4 \times 6 = 24$   
 $\boxed{\text{Ans} = 4 \text{ boxes}}$   
110. 60,543  
111.  $10,000,000 - 5,000,000 = 5,000,000$   
112. C  
113.  $57.79 - 56.90 = 0.89 \text{ sec}$   
114.  $6 \div 24 = \frac{1}{4} = 1/4$   
115.  $3.5 \times 200 = \$700$