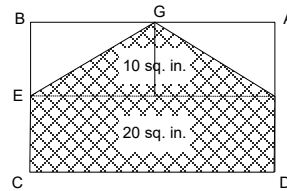


Answer Key

1. 166
2. 51
3. 9:40 A.M.
4. 4 & 625
5. 0.25
6. $12 \times 3 + 23 \times 2 = 82$
7. 4
8. 4
9. 9
10. $(9 - 8) + (7 - 6) + (5 - 4) + (3 - 2) + 1 = 5$
11. A
12. $8 + 2 = 10$
 $5 + 2 = 7$ (width)
 $10 \times 7 = \boxed{70 \text{ ft}^2}$
13. $\frac{1}{2} \times 50 = 25$
 $25 + 50 = \boxed{75}$
14. What is the width?
 $8 - 2 - 2 = 4$
What is the length?
 $10 + 4 - 6 = 8$
Thus, the area is
 $8 \times 4 = \boxed{32 \text{ in}^2}$.
15. 12,059
16. $12 \div 3 = 4$
 $4 \times 5 = \boxed{\$20.00}$
17. Kim: $163 + 347 = 510$
Bill: $300 \times 2 = 600$
Difference: $600 - 510 = \boxed{90}$
18. $21 \div 3 = 7$
 $21 - 7 = \boxed{14}$
19. $3 \times 12 + 14 = 36 + 14 = 50$ (min)
20. $30 - 6 = 24$
 $24 = 16 + 8$
 $16 + 3 + 3 = \boxed{22 \text{ yrs old}}$
21. $20 \times 3 - 12 - 15 = \boxed{33}$
22.
$$\begin{array}{r} 4 + 1\frac{5}{8} \\ - 4 + \frac{1}{3} \\ \hline \end{array} = \begin{array}{r} 1\frac{5}{8} \\ - \frac{1}{3} \\ \hline \end{array} = 1\frac{7}{24} = 1\frac{7}{24}$$
23. 64
24. 5:10 A.M. - 9:40 P.M.
 $= 5:10 - 9:40 + 12:00$ (next day)
 $= 17:10 - 9:40$
 $= 7:30$
 $= 7 \text{ hr \& } 30 \text{ min}$
25. $\frac{3}{7} = \frac{9}{21} = \frac{12}{28}$
 $9 + 28 = \boxed{37}$

26. 93
27. $\frac{5}{8} = 5/8$
28. $72000 \div 6 + 600 \div 2 + 900 \div 20$
 $= 12000 + 300 + 45$
 $= \boxed{12345}$
29. $36 \div 4 = 9$
 $9 \div 3 = 3 \text{ in}$ (each side of a square)
 $3 \times 3 \times 5 = \boxed{45 \text{ in}^2}$
30. D
 $20 + \frac{1}{2}(40) = 30$



31. $100 \div 0.8 = 125$
 $125 - 100 = \boxed{\$25}$
32. 9
33. $13 - 5 = 8$ (length)
 $8 - 2 - 2 = 4$ (width)
 $8 \times 4 = 32 \text{ m}^2$ (area)
34. 150
35. $30\frac{3}{4} - 12\frac{5}{8} = 18\frac{1}{8} = 18 \frac{1}{8}$ pounds
36. Let x be the number of students.
 $3x + 5 = 4x - 21$
 $x = 26$
37. $60 \div 4 = 15$
 $15 \times 3 = \boxed{45}$
38. $14:15 - 8:55 = 5:20$
 $(5 \text{ hr } 20 \text{ min}) \div 4 = \boxed{1 \text{ hr \& } 20 \text{ min}}$
39. $90 + 73 + 80 = 243$
 $243 \div 3 = \boxed{81}$
40. $85 \times 4 = 340$
 $340 - 243 = \boxed{97}$
41. $1/12$
42. $1/4$
43. $\frac{24}{35} = 24/35$
44. $\frac{4}{7} = 4/7$
45. $\frac{8}{7} = 1\frac{1}{7} = 1 \frac{1}{7}$
46. $3/4$
47. 20
48. $\frac{10}{3} \times 9 \times \frac{1}{40} = \frac{3}{4} = 3/4$

MAP 260 (T3) Issue 1

49. 9
 50. $\frac{8}{45} = 8/45$
 51. $2/19$
 52. $4/9$
 53. $5/21$
 54. $5/9$
 55. $7/29$
 56. $7/11$
 57. $8/35$
 58. $9/47$
 59. $10/19$
 60. $8/13$
 61. $120 - 120 \times (1/4) = 90$
 62. $36/12 \times 6 = 18$
 63. $2 \times 12 \times (1 - 2/3) = 8$
 64. $33/2 + 0.5 = 17$
 65. $42 \times (5/7) = 30$
 66. $72 \times (1 - 8/9) = 8$
 67. $6 \times (45/5) = 54$
 68. $25 \times (1 - 80\%) = 5$
 69. $((1 \times 100)/5) \times 5 = 100$
 70. (a) $2 \times (4 \times 3 + 3 \times 6 + 6 \times 4) = 108$
 (b) $4 \times 3 \times 6 = 72$
 71. $1/14$
 72. 21
 73. $1/16$
 74. 18
 75. $1/21$
 76. $1/32$
 77. 18
 78. 21
 79. 32
 80. $1/10$
 81. D
 $42 \div 7 = 6$
 $6 \times 3 = 18$

82. D
 $\sqrt{36 - \sqrt{121}} = \sqrt{25} = 5$
 $\sqrt{31 + 5} = 6$

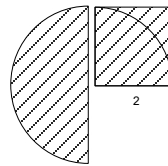
83. D
 $\frac{3}{8} - \frac{1}{4} = \frac{1}{8}$
 $\frac{1}{4} - \frac{3}{16} = \frac{1}{16}$
 $\frac{3}{16} - \frac{1}{4} = \frac{1}{16}$
 $\frac{1}{16} - \frac{15}{64} = \frac{1}{64}$

84. C

85. C
 $x = 6, y = 4$
 $x + y = \boxed{10}$

86. C
 $3.20 \div 64 = 0.05$

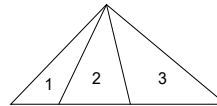
87. B
 $3\pi + (4 - \pi) = 2\pi + 4$
 or
 Move a quarter of the circle to fill the square as below. The area is
 half-circle + square = $\frac{1}{2}(4\pi) + 4 = 2\pi + 4$.



88. C

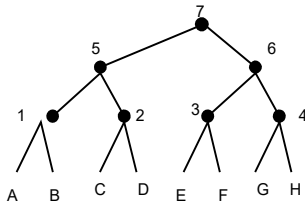
89. D
 $12 - 7 = 5$
 $5 + 3:30 - 0:45 = 7:45 = 7\frac{3}{4} \text{ hr}$
 $10 \times 7\frac{3}{4} = 77.50$

90. C
 There are
 3 smaller sized triangles: (1), (2), (3)
 2 medium sized triangles: (12), (23)
 1 large sized triangle: (123)
 $1 + 2 + 3 = 6$
 Note: (13) is not a triangle.



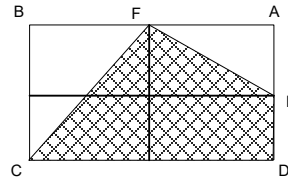
Answer Key

1. $\frac{4}{5} = 4/5$
2. 45
3. $1\frac{1}{12}$
4. $120 \div 7 = 17R1$
Ans = 17 & 1 (R)
5. 8
6. B
7. $\square = 7$
8. $\square = 8$
9. $\frac{3}{4} \times 12 = 9$ in
10. $4:45 + 50 = 5:35$
11. $500 \div 60 = 8 R 20$
Ans = 9 buses
12. $18 - 2 \times 3 = 12$
13. 36 inches
14. $5 \times 16 \times 7 = \boxed{560}$
15. $9 \times 8 = \boxed{72}$
16. $123 + (123 - 48) = 198$
17. $2 \times 16 + 5 \times 14 = 32 + 70 = 102$
 $102 \div 6 = \boxed{\$17.00}$
18. $240 \div 3 = \$80$
19. $96 \div 8 = 12$
 $2(8 + 12) = \boxed{40}$
20. 7 matches are needed



21. $3 \times 18 - 25 = \boxed{29}$
22. $\frac{7}{24} = 7/24$
23. 2
24. 1 hr & 30 min
25. $\frac{9}{14} = 9/14$
26. 240000
27. 70
28. 240
29. $3200 \div 5\frac{1}{3} = \boxed{600 \text{ mph}}$

30. C
The area of the shaded region is 15 square inches, which
 $\frac{1}{2} + \frac{1}{8} = \frac{5}{8}$ of the area of ABCD.
So, the area(ABCD) = 24 square inches.



31. $11.50 - 2 \times 3.50 = 4.50$
 $4.50 \div 3 = \boxed{\$1.50}$
32. $20 \times 20 \times 2 - 10 \times 10$
 $= 800 - 100$
 $= \boxed{700 \text{ in}^2}$
33. $800 = 2 \times 400$
 $400 = 20 \times 20$
radius = 20
 $2 \times 20 = 40$ cm (diameter)
34. $1\frac{3}{4} \times 4 \times 3 = 21$ hours
35. $\frac{1}{4} \times 10 = 2.5$
 $2.5 + 2.25 = 4.75$
 $10 - 4.75 = \boxed{5.25}$
36. 5
 $114 \div 2 = 57$
 $285 \div 57 = \boxed{5}$
37. $5 - 4 = 1$
 $1 \div 4 = \frac{1}{4}$
 $60 \times \frac{1}{4} = \boxed{15}$
38. $300 - 60 = 240$
 $240 \div 5 = \boxed{\$48.00}$

2	24	64
2	12	32
2	6	16
3		8
39. $2 \times 2 \times 2 = \boxed{8}$
40. There are 4 girls and 3 boys. From Alan's eyes, there are 2 boys, so the girls are twice the number of the boys. From Betty's eyes, there 3 girls, so there are the same number of girls and boys. $3 + 4 = \boxed{7}$
41. 78
42. 16
43. 6

MAP 260 (T3) Issue 2

- | | |
|---|---|
| 44. 4 | 76. 16 |
| 45. 13 | 77. 27 |
| 46. 4 | 78. $1/16$ |
| 47. 5 | 79. $1/8$ |
| 48. 8 | 80. $1/15$ |
| 49. 8 | 81. A |
| 50. 12 | $200 - 300 = -100$ |
| 51. $3/4$ | 82. D |
| 52. $4/13$ | Betty = $\frac{3}{4} = \frac{30}{40}$ |
| 53. $5/26$ | Susan = $\frac{2}{5} = \frac{16}{40}$ |
| 54. $5/14$ | Mike = $\frac{5}{8} = \frac{25}{40}$ |
| 55. $7/36$ | John = $\frac{1}{2} = \frac{20}{40}$ |
| 56. $7/18$ | 83. C |
| 57. $8/43$ | $6.8 \times 10^5 \div (2 \times 10^2) = 3.4 \times 10^3$ |
| 58. $9/56$ | 84. B |
| 59. $10/29$ | $26 \frac{3}{16} - 24 \frac{3}{8}$ |
| 60. 8 | $= 2 \frac{3}{16} - \frac{3}{8}$ |
| 61. $20 \times (1 - 45\%) = 11$ | $= 1 \frac{19}{16} - \frac{6}{16}$ |
| 62. $2 \times 12 \times (1 - 3/4) = 6$ | $= 1 \frac{13}{16}$ |
| 63. $32/2 \times 5 = 80$ | 85. B |
| 64. $21 + (25 - 29) \times (7 - 3) = 5$ | $\frac{6}{9} = \frac{2}{3}$ |
| 65. $10 / (7 - 6) \times 6 = 60$ | 86. B |
| 66. $(39 + 5) / 2 = 22$ | $6 \frac{1}{3} \div 9 \frac{1}{2} = \frac{19}{3} \div \frac{19}{2} = \frac{2}{3}$ |
| 67. $24 \times (3/8) = 9$ | 87. B |
| 68. $52 \times (3/4) = 39$ | 88. C |
| 69. $9 \times (20 + 5 + 2) = 243$ | 89. B |
| 70. $\frac{1}{8} \times 16 \times 10 = 20$ ounces | $\frac{2}{3} \times 120 = 80$ |
| 71. $1/21$ | 90. C |
| 72. 32 | $\frac{2.1}{7} = 0.3 \times 4 = 1.2$ |
| 73. $1/16$ | |
| 74. $1/18$ | |
| 75. 12 | |

Answer Key

1. $1 \frac{2}{3}$
2. 45 min
3. $4:45 - 50 = 3:55$
4. 20
5. $(15 - 14) + (13 - 12) + (11 - 10) + (9 - 8) + (7 - 6) = \boxed{5}$
6. 10
7. 14
8. 320
9. 9
10. $90 - 42 = \boxed{48}^\circ$
11. $100 \div 25 = 4$
 $20 \times 4 = 80$
12. $4 \times 175 = 700$
13. LCM(8, 12) = 24
 $24 \times 5 = 120$
14. \$6.00
15. $\boxed{6}$ times
See the record below. "T" means target and B means bull's eye.

1	
2	
3	T
4	B
5	
6	T

7	
8	B
9	T
10	
11	
12	B
16. $126 \div 7 = 18$ (weeks)
17. $2 \times 12 = 24$
 $\frac{1}{2} \times 12 = 6$
 $24 + 6 = \boxed{30}$
18. $8 \times 4 - 4 = 28$
19. $22 + 17 = 39$
 $39 \div 3 = \boxed{13}$
20. \$13
21. 15
22. $100 - 98 + 66 - 64 + 2 = 6$
23. 5
24. $\frac{13}{15} = 13/15$
25. $10 \frac{5}{24} = 10 \frac{5}{24}$
26. 286
27. 25
28. $12 = 4 \times 3$
 $15 = 5 \times 3$
The least common multiple is $3 \times 4 \times 5 = \boxed{60}$
29. $1 - 75\% = 25\%$
 $200 \times 25\% = \boxed{50}$ acres
30. $20 \times \frac{1}{5} = 4$
 $20 + 4 = \boxed{\$24}$
31. $6:15 \text{ P.M.} - 6:30 \text{ A.M.}$
 $= 18:15 - 6:30$
 $= \boxed{11 \frac{3}{4} = 11 \frac{3}{4} \text{ hr}}$
32. $330 \div 40 = 8 \text{ R}10$
 $\boxed{\text{Ans} = 9}$ boxes
33. D
1 square yard = 9 sq. ft.
34. 80
35. There are two methods to find the radius.
Method I)
 $60 \div 2 = 30$
 $30 = 10 + 20$
radius = 10
 $AB = 20$
Method II)
 $2(1 + 2) = 6$
 $60 \div 6 = 10$ (radius)

 $10^2 \pi = 100 \pi = 314$
 $2 \times 314 = \boxed{628 \text{ cm}^2}$
36. \$95
37. $3 \times 0.8 + 2 \times 0.95 + 2.5$
 $= 2.4 + 1.9 + 2.5$
 $= 6.8$
 $10 - 6.8 = \$3.20$
38. $64 = 8 \times 8$
 $4 \times 8 = \boxed{32 \text{ in}}$
39. 12 (cups)
40. $3.50 - 0.25 = \boxed{3.25}$
41. $\frac{10}{21} = 10/21$
42. $4 \frac{1}{2} = 9 \frac{2}{3} = 9 \frac{2}{3}$
 $+ 5 \frac{1}{6}$
43. $2 \frac{7}{9} = 2 \frac{7}{9}$
44. $6 \frac{47}{60} = 6 \frac{47}{60}$
45. $\frac{9}{14} = 9/14$
46. $\frac{11}{42} = 11/42$
47. 6

MAP 260 (T3) Issue 3

48. 1
49. $\frac{9}{25} = 9/25$
50. $\frac{9}{55} = 9/55$
51. $3/7$
52. $4/17$
53. $5/31$
54. $5/19$
55. $7/43$
56. $7/25$
57. $8/51$
58. $9/65$
59. 2
60. $9/26$
61. $36 \times (1 - 5/6) = 6$
62. $24 \times 2 + 24/3 \times 1 = 56$
63. $24 \times 2 + 24/4 \times 1 = 54$
64. $20 \times (3/4) = 15$
65. $10/2 \times 5 = 25$
66. $60 \times 2 + 60/3 \times 1 = 140$
67. $56 \times (5/4) = 70$
68. $41/2 + 0.5 = 21$
69. $60 \times 1 + 60/6 \times 1 = 70$
70. $88 \times (5/11) = 40$
71. 28
72. $1/16$
73. 15
74. $1/36$
75. 6
76. $1/24$
77. $1/28$
78. 6
79. 15
80. 24
81. C
82. C
Note the fraction in C is the only one that is greater than 1.
83. C
 $1\frac{3}{4} \times 60,000$
 $= 60,000 + 45,000$
 $= 105,000$
84. A
 $3.1 + 4.25 + 10.8 = 18.15$
85. B
 $\frac{1}{99} = \frac{1}{11} \times \frac{1}{9} = \frac{1}{11} \times (0.11111 \dots) =$
0.010101 ...
86. D
87. B
88. B
diameter = 20 inches
circumference = $20\pi = \boxed{62.8 \text{ in}}$
89. C
radius = $20 \div 2 = 10$ (inches)
area = $10^2\pi = 100\pi = \boxed{314 \text{ in}^2}$
90. C
5 cars and 15 bicycles

Answer Key

1. $\frac{35}{100} = \frac{7}{20} = 7/20$

2. 3

3. $\square = 4$

4. 4

5. $\square = 35$

6. $\square = 60$

7. $\frac{3}{4} = 3/4$

8. $24 \times 60 = 1440$ min

9. $52 + 2 - 5 = \boxed{49}$

10. $2 \times 0.75 = 1.5$

$4 \times 0.75 = 3$

$6 \times 0.75 = 4.5$

Ans = 6 cans only

11. $1600 \div 8 = 200$

12. $20 \times 5 = 100$

$120 - 100 = 20$

$20 \div 10 = 2$ (dimes)

13. $80 + 10 = 90$

$90 \div 2 = \boxed{45}$

14. $31 \div 5 = 6R1$

Ans = $\boxed{7}$ boxes are needed

15. $3 \times 12 \times 0.3 = \10.80

16. 4:55 am + 1:17 = 6:12 pm

17. Sat, Sun, Mon, Tue, Wed

Wed - Sat = 4 days

$2 \times 2 \times 2 \times 2 = 2^4 = 16$

$6 \times 16 = \boxed{96}$ inches

18. Tom = $5 + 2 = 7$ yrs old

Sam = $3 \times 7 = \boxed{21}$ yrs old

19. $20 \times 2 - 15 = \boxed{25}$

20. 7

21. .000006

22. 100

23. -5

24. 60

25. 60

26. $\frac{2}{3} \times 24 = 16$

27. 16

28. GCD(90, 72) = $\boxed{18}$ teams

29. $90 \div 18 = \boxed{5}$ boys

30. $72 \div 18 = \boxed{4}$ girls

31. A

32. If he open 3 boxes, then $3 \times 6 = 18$ (copies), which are not enough.

Ans = $\boxed{4}$ boxes

33. GCF(45, 60, 90) = 15 (groups)

$45 \div 15 = 3$

$60 \div 15 = 4$

$90 \div 15 = 6$

$3 + 4 + 6 = \boxed{13}$

34. $30 \times 2 + 5 \times 2 + 4(15 - 5)$

$= 60 + 10 + 40$

$= \boxed{110}$

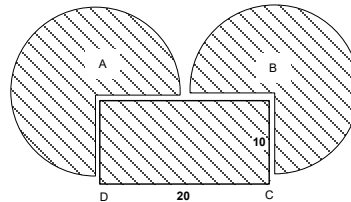
35. C

radius = 10

$\frac{3}{4} \times 2 \times 100\pi = 150\pi$

$10 \times 20 = 200$

$200 + 150\pi = 671$



36. Julio = 15

Erin = 30

Kesha = 37

Total = $\boxed{82}$

37. $9.45 \div 3 = \$3.15$

38. $\frac{1}{2} \times 3 \times 4 = 6$ (triangle area)

$42 - 6 = 36$ (rectangle area)

$36 \div 3 = 12$ cm (length of CD)

$4 + 5 + 12 + 3 + 12 = \boxed{36}$ cm (perimeter)

39. $9,500 + 2,100 = \boxed{11,600}$

40. $360 \div 10 = 36$

$36 = 6 \times 6$

$6 \times 6 \times 6 = 216$

$2 \times 216 = \boxed{432}$ in³

41. $19\frac{5}{12} = 19 \frac{5}{12}$

42. $2\frac{5}{18} = 2 \frac{5}{18}$

43. 61

44. $5\frac{3}{5} = 5 \frac{3}{5}$

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

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

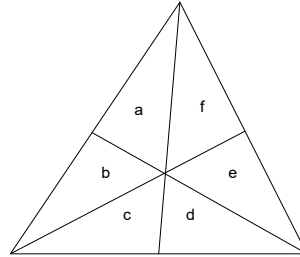
47. $\frac{2}{7}$

48. 4

MAP 260 (T3) Issue 4

49. 6
 50. $\frac{3}{2}$
 51. $\frac{3}{10}$
 52. $\frac{4}{21}$
 53. $\frac{5}{36}$
 54. $\frac{5}{24}$
 55. $\frac{7}{50}$
 56. $\frac{7}{32}$
 57. $\frac{8}{15}$
 58. $\frac{9}{13}$
 59. $\frac{3}{5}$
 60. $\frac{9}{25}$
 61. $50 - (50/5 \times 3) = 20$
 62. $24 + (20 - 16) \times (6 - 3) = 36$
 63. $72 / (3 + 3/5) = 20$
 64. $60 \times 0 + 60 / 3 \times 2 = 40$
 65. $64 / (1 + 7/9) = 36$
 66. $70 \times (1 - 2/5) = 42$
 67. $30 \times \frac{1}{5} = 6$
 $30 - 6 = 24$ (not ripe)
 68. $70 / (1 - 1/8) = 80$
 69. $7 \times (25/5) = 35$
 70. $110 \times (1 - 1/2) = 55$
 71. 14
 72. 15
 73. 24
 74. 14
 75. 21
 76. $\frac{1}{36}$
 77. $\frac{1}{6}$
 78. 12
 79. 36
 80. $\frac{1}{14}$
 81. B
 $\frac{1}{2} \div 3 = \frac{1}{6}$

82. C
 83. D
 $20 \div 2 = 10$
 $10 - 4\frac{1}{5} = 5\frac{4}{5}$
 84. D
 From smallest to the largest:
 6: a, b, c, d, e, f
 3: ab, cd, ef
 6: abc, bcd, cde, def, efa, fab
 1: abcdef
 total: 16



85. C
 Method I)
 $\frac{2}{5} \times 15,500,000$
 $= 0.4 \times 15,500,000$
 $= 6,200,000$
 Method II)
 $\frac{2}{5} \times 15,500,000$
 $= 2 \times 3,100,000$ (cancellation)
 $= 6,200,000$
 86. C
 87. B
 88. A
 $\frac{1}{2} \left(1 - \frac{4}{7}\right) = \frac{3}{14}$
 89. D
 $10 \times 1\frac{1}{2} = 10 \times 1.5 = 15$
 $16 \times 1\frac{1}{2} = 16 + 8 = 24$
 90. B

Answer Key

- | | |
|--|---|
| 1. 0.0024 | 33. 25 |
| 2. $\square = 3$ | 34. 300 |
| 3. 40500 | 35. 10 |
| 4. 16 | 36. 11 |
| 5. 145 | 37. 35 |
| 6. $\frac{75}{6} = \frac{25}{2} = 12\frac{1}{2} = 12\ 1/2$ | 38. 6 |
| 7. $7 \times 60 = 420$
$\frac{1}{2} \times 60 = 30$
$420 + 30 = \boxed{450 \text{ min}}$ | 39. 8 |
| 8. $1/6$ | 40. \$7.00 |
| 9. $\frac{65}{4} = \boxed{16\frac{1}{4}} = 16\ 1/4$ | 41. $7\ 7/12$ |
| 10. 50 times | 42. $11/12$ |
| 11. $(50 + 70) \times 10 = 1200$ | 43. $1\ 2/7$ |
| 12. $10 + 5 = 15$
$120 \div 15 = 8$
$2 \times 8 = \boxed{16}$ | 44. $6\ 4/9$ |
| 13. $11:30 - 1:45 = 9:45 \text{ am}$ | 45. $1\ 8/11$ |
| 14. $\frac{300}{24} = \frac{25}{2} = 12.5 = 12 \text{ min \& } 30 \text{ sec}$ | 46. $4/5$ |
| 15. Four years ago, Kirk was 6 and Jake was 12.
Jake = 16 now | 47. $1\ 4/9$ |
| 16. Sam: 18
Lee: 9
Pat: $(9 - 1) \div 4 = \boxed{2}$ | 48. $1\ 3/7$ |
| 17. Nancy = 10
Maria = 6
$6 - 3 = \boxed{3}$ | 49. 90 |
| 18. $20 - 5 = 15$
$20 + 15 = \boxed{35}$ | 50. $1\ 2/5$ |
| 19. $75 = 3 \times 25 = 5 \times 15 = \dots$, thus they are 5 and 15.
Ans = <u>15</u> | 51. $3/13$ |
| 20. 41
2 in (A) & 10 in (B) & 3 in (C) & 7 in (D) | 52. $4/25$ |
| 21. 4 | 53. $5/41$ |
| 22. 8 | 54. $6/7$ |
| 23. 4 | 55. $7/57$ |
| 24. 24 | 56. $7/39$ |
| 25. 24 | 57. $8/23$ |
| 26. 24 | 58. $9/22$ |
| 27. 24 | 59. 3 |
| 28. 0.5 | 60. $9/5$ |
| 29. 0.4 | 61. $24 / ((16/4) \times 3) = 2$ |
| 30. 0.2 | 62. $55 / 5 \times 2 = 22$ |
| 31. 1 | 63. $24 \times 2 + 24 / 4 \times 3 = 66$ |
| 32. 72 | 64. $81 \times \frac{1}{9} = 9$
$81 - 9 = 72$ (not ripe) |
| | 65. $22 / (1 - 3/5) = 55$ |
| | 66. $60 \times 0 + 60 / 5 \times 3 = 36$ |
| | 67. $42 \times (4/7) = 24$ |
| | 68. $2 \times (6^2) / 6 = 12$ |
| | 69. (a) $(2+6) / 2 = 4$
(b) $4 \times (2+6) / 2 = 16$ |
| | 70. (a) $(7+3) / 2 = 5$
(b) $8 \times (7+3) / 2 = 40$ |
| | 71. $2\frac{2}{3} \times 60 = 120 + 40 = 160 \text{ min}$ |

MAP 260 (T3) Issue 5

72. $0.85 \times 3000 = \boxed{2,550}$

73. 30

74. $.14 \times .7 = .098$

75. 15

76. 20%

77. $4\frac{1}{8} = 4\frac{1}{8}$

78. $44 \div 5 = 8R4$

$8 + 1 = \boxed{9 \text{ cars}}$

79. 30

80. Method I)

$\frac{1}{2}(5 + 35) = \boxed{20}$

Method II)

$35 - 5 = 30$

$30 \div 2 = 15$

$15 + 5 = \boxed{20}$

81. 1-round: $2 \times (13 + 23) = 72 \text{ (ft)} = 24 \text{ (yd)}$

5-round: $5 \times 24 = \boxed{120 \text{ (yd)}}$

82. $50 \div 5 = 10 \text{ cm (diameter)}$

circumference = $10\pi = 31.4 \text{ (cm)}$

five cir. = $5 \times 31.4 = \boxed{157 \text{ (cm)}}$

83. $n = 1, 6 + 2 = 8$

$n = 2, 8 + 2 = 10$

$n = 3, 10 + 2 = 12$

$n = 100, 6 + 200 = \boxed{206}$

84. $85 + 92 + 96 = 273$

$273 \div 3 = 91$

85. $93 \times 4 = 372$

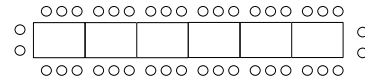
$372 - 273 = \boxed{99}$

86. $2(2 + 3) = 10 \text{ (people each table)}$

$40 \div 10 = \boxed{4 \text{ tables}}$

87. $40 - 4 = 36$

$36 \div 6 = \boxed{6 \text{ tables}}$



88. $40 - 6 = 34$

$34 \div 4 = 8 \text{ R } 2$

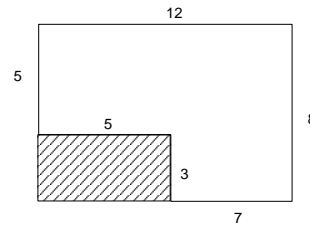
$8 + 1 = \boxed{9 \text{ tables}}$



89. $81 - 25 = 56$

$56 \div 7 = 8$

$(12 + 8) \times 2 = \boxed{40 \text{ in}}$



90. $50 \times 5\% = 50 \times .05 = \2.50

Answer Key

1. .375
2. $(560 - 500) \div 5 - 1 = 11$
3. $\frac{5}{8} = 5/8$
4. $\frac{7}{8} = 7/8$
5. 123.4
6. 20
7. $200 \div 9 = 22R2$
Ans = 22 & 2 (R)
8. 240
9. 112
10. $5 \times 12 = 60$
 $60 - 4 = 56$
 $56 \div 7 = 8$ weeks
11. $50 + 10 = 60$
 $60 \div 2 = 30$
12. $8:20 \text{ am} + 2:50 = 11:10 \text{ am}$
13. $12,436 + 10,658 = 23,094$
14. $8 \times 2 = 16$
15. C
 $24 \div 7 = 3R3$
Monday - 3 = Friday
16. $12 \times (3+4+5) = 144$
17. $137 - 122 = 15$
 $15 \div 5 = 3$ nickels
18. $100 + 8 \times (16 - 10) = 148 \text{ cm}$
19. $4 \times 6 = 24$
 $4 + 6 = 10$
20. 30
8 in (A) & 10 in (B) & 7 in (C) & 5 in (D)
21. 0.16
22. $1\frac{1}{2} + 2\frac{1}{3} = 3 + (\frac{1}{2} + \frac{1}{3}) = 3\frac{5}{6} = 3 \frac{5}{6}$
23. $6\frac{5}{6} = 6 \frac{5}{6}$
24. 123 & 4 (R)
25. 225
26. 450 (min)
27. 12
28. $\frac{13}{15} = 13/15$
29. $30 \times 8 = 240$
 $240 - 210 = \$30$
30. C
 $36 = 6 \times 6 = 4 \times 9 = 3 \times 12 = 2 \times 18 = 1 \times 36$
(6, 6) is not good as they must be different.
(4, 9) is the only answer.
Their difference is $9 - 4 = 5$.
31. $Speed_{avg} = \frac{D_{tot}}{T_{tot}} = \frac{365+245}{6+4} = 61 \text{ mph}$
32. A
 $\frac{10}{5} = 2$
 $2^2 = 4$ times
33. 50
34. { 25, 50, 100 }
35. Let
 $x = \#$ daughters
 $3x + 1 = \#$ sons
Each daughter has $x - 1$ sisters.
 $3x + 1 = 5(x - 1)$
 $2x = 6$
 $x = 3$ (daughters)
 $3x + 1 = 10$ (sons)
 $10 + 3 = 13$ (children)
36. $8 \text{ lb } 12 \text{ oz} + 8 \text{ oz} = 9 \text{ lb } \& 4 \text{ oz}$
37. 14
38. $28 \div 14 = 2$
 $98 \div 14 = 7$
 $196 \div 14 = 14$
 $2 + 7 + 14 = 23$
39. $48 \div 6 = 8$
 $2(6 + 8) = 28 \text{ in}$
40. $800 \times 15\% \times 2 = 240$
41. 7
42. 1.4
43. 0.28
44. 1485
45. $3 \frac{1}{4}$
46. $7 \frac{5}{8}$
47. $\frac{5}{6}$
48. $\frac{10}{3} = 3 \frac{1}{3}$
49. $\frac{5}{12}$
50. 0.008
51. 0.09
52. $1/9$
53. $4/9$
54. $\frac{25}{9} = 2 \frac{7}{9}$
55. 8,000
56. 900
57. 1.5

MAP 260 (T3) Issue 6

58. 0.75
59. 2.5
60. 0.025
61. 89
62. 90
63. 60
64. 45
65. 36
66. 2.7
67. 1.2
68. 2
69. 27
70. 12
71. $\frac{1}{21}$
72. 36
73. 18
74. $\frac{1}{21}$
75. $\frac{1}{20}$
76. C
91 = 7×13
It has 4 factors: 1, 7, 13, and 91.
77. A
A:B = 3:2
 $180 \times \frac{3}{5} = \boxed{108}$

78. C
 $40 \times 20 = 800 \text{ (cm}^2\text{)}$
 $10^2\pi = 100\pi = 314$
 $800 - 314 = 486$
79. C
 $8\frac{3}{4} \div 3\frac{1}{2}$
 $= \frac{35}{4} \div \frac{7}{2}$
 $= \frac{35}{4} \times \frac{2}{7}$
 $= \frac{5}{2} = 2\frac{1}{2}$
80. D
All areas = $\frac{1}{2}(5)(4) = 10$.
81. B
 $\frac{1}{4} \text{ in} = 150 \text{ mi}$
 $1 \text{ in} = 600 \text{ mi}$
 $3\frac{1}{2} \text{ in} = 2,100 \text{ mi}$
82. A
45 out of 60 = $\frac{3}{4}$, $160 \times \frac{3}{4} = 120$
83. A
 $1 + 2x = 17$
 $x = \frac{1}{2}(17 - 1)$ is not acceptable
84. A
 $1.95 + 2.25 + 1.05 = 5.25$
85. C