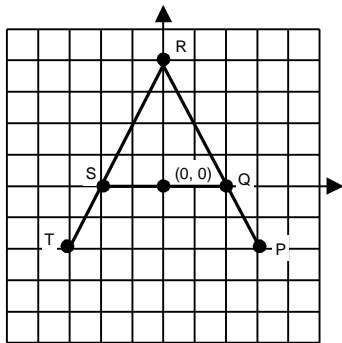


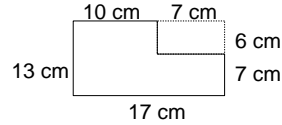
# Answer Key

1. 70
2. 27
3. 24
4. -270
5. -56
6. 11
7. -11
8. -30
9. -75
10. 35
11. 1024
12. 1764
13. 2704
14. 3844
15. 324
16. 784
17. 1444
18. 2304
19. 3364
20. 529



- 21.
22. The area of  $\triangle QRS = \text{base} \times \text{height} / 2 = 4 \times 4 / 2 = 8$ .
23. The area of  $\triangle PRT = \text{base} \times \text{height} / 2 = 6 \times 6 / 2 = 18$ .
24. The area of trapezoid PQST =  $(\text{top} + \text{bottom}) \times \text{height} / 2 = 10$ .
25.  $(\text{base} + \text{top}) \times \text{height} \div 2 = (8 + 12) \times 20 \div 2 = 200$
26. P = (7, 5)
27. Q = (7, -1)
28. R = (-1, -1)
29. S = (-1, 5)

30. A:  $13 \times 17 = 221$ ,  $6 \times 7 = 42$ ,  $221 - 42 = 179 \text{ (cm}^2\text{)}$   
P:  $2 \times (13 + 17) = 60 \text{ (cm)}$ .



31.  $25 - (25 / 5 \times 2) = 15$
32.  $25 \times (1 - 80\%) = 5$
33.  $2\frac{1}{2} \times 2 = 5 \text{ inches}$
34.  $40 / ((16 / 2) \times 1) = 5$
35.  $84 / 7 \times 2 = 24$
36.  $2 \times 12 \times (1 - 3/8) = 15$
37.  $44 - 12 \times (3 + 1/2) = 2$
38.  $24 \times (1 - 1/6) = 20$
39.  $75 / (1 - 3/8) = 120$
40.  $13 / (3 - 2) \times 2 = 26$
41.  $1/2$
42.  $1/9$
43.  $1/10$
44.  $1/2$
45.  $1/2$
46.  $1/4$
47.  $1/2$
48.  $1/3$
49.  $1/64$
50.  $16/25$
51. 2 in (A) & 7 in (B) & 5 in (C) & 8 in (D)
52. 4 in (A) & 9 in (B) & 3 in (C) & 5 in (D)
53. 8 in (A) & 7 in (B) & 8 in (C) & 5 in (D)
54. 8 in (A) & 7 in (B) & 4 in (C) & 8 in (D)
55. 4 in (A) & 8 in (B) & 3 in (C) & 10 in (D)
56.  $\frac{1}{10} = 1/10$
57. -9
58. 1.1
59. .064
60. .002
61. 10,000
62. 250%
63.  $30\% \times 24 = 7.2 = 7 \text{ hr} \ \& \ 12 \text{ min}$
64. 35%
65. 16

## MAP 265 (T2) Issue 7

66. 4.5
67.  $5 \times \frac{17}{60} - \frac{1}{6} = \frac{15}{12} = 1\frac{1}{4} = 1\frac{1}{4}$
68.  $156 = 26 \times 6$   
 $130 = 26 \times 5$   
LCM =  $26 \times 6 \times 5 = 780$
69.  $6\frac{19}{48} = 6\frac{19}{48}$
70.  $40 \div 8 = 5$   
 $3 \times 5 \times 5 = 75 \text{ in}^2$
71.  $9 \times 3 = 27$  (sum)  
 $27 - 5 - 11 = 11$  (Charles)
72.  $11^2\pi - 10^2\pi = 21\pi = 21 \text{ pi}$
73.  $60^\circ$
74.  $300 \div 20 = 15$
75.  $18 \div 60 = 0.3$  (hr)  
 $80 \times 0.3 = 24 \text{ mi}$
76.  $x^2 + 4x - 45$
77.  $x^2 - 7x + 10$
78.  $x^2 - 6x + 5$
79.  $x^2 - 4x - 5$
80.  $x^2 + 3x - 40$
81.  $x^2 - 3x - 10$
82.  $x^2 - 9x + 20$
83.  $2x^2 - 15x + 27$
84.  $4x^2 - 9$
85.  $18x^2 + 45x - 8$

# Answer Key

- |   |                           |
|---|---------------------------|
| 1. 22   | 42. 2                     |
| 2. -15  | 43. 0.8                   |
| 3. 24   | 44. 8                     |
| 4. -108                                       | 45. 0.4                   |
| 5. 2  | 46. 0.08                  |
| 6. 1  | 47. 0.04                  |
| 7. -56  | 48. 0.02                  |
| 8. 7  | 49. 0.25                  |
| 9. -70  | 50. 0.0625                |
| 10. 40  | 51. $x = -4$              |
| 11. 12.25 sq inches                           | 52. $x = 1$               |
| 12. 60 feet                                   | 53. $x = -5$              |
| 13. 120 yards                                 | 54. $x = 4$               |
| 14. 44 inches                                 | 55. $x = 3$               |
| 15. 961 sq meters                             | 56. $x = -8$              |
| 16. 100 cm                                    | 57. $x = 1$               |
| 17. 3721 sq inches                            | 58. $x = -1$              |
| 18. 60 yards                                  | 59. $x = -3$              |
| 19. 62 meters                                 | 60. $x = 4$               |
| 20. 46 cm                                     | 61. $1/16$                |
| 21. $9.00 \times 4.5 \times 3 \times 2 = 243$ | 62. 2                     |
| 22. $20 \times (1 - 55\%) = 9$                | 63. 5                     |
| 23. $(36 \times 3 + 36/9 \times 4)/4 = 31$    | 64. $1/5$                 |
| 24. $16 / ((16/4) \times 1) = 4$              | 65. $16/625$              |
| 25. $80/5 \times 1 = 16$                      | 66. 20                    |
| 26. $2 \times 12 \times (1 - 1/3) = 16$       | 67. $4/5$                 |
| 27. $34 - 12 \times (2 + 2/3) = 2$            | 68. -2                    |
| 28. $12 \times (1 - 2/3) = 4$                 | 69. 10000                 |
| 29. $80 / (1 - 1/6) = 96$                     | 70. 4                     |
| 30. $5280 \times (1 - 3/8) = 3300$            | 71. 0.0004                |
| 31. 0.5                                       | 72. 36                    |
| 32. 0.25                                      | 73. 110                   |
| 33. 0.2                                       | 74. .098                  |
| 34. 0.125                                     | 75. 0.089                 |
| 35. 0.1                                       | 76. $\frac{14}{3} = 14/3$ |
| 36. 10  | 77. $2^9 = 8^3$           |
| 37. 5   | 78. -4                    |
| 38. 5   | 79. $x = 9$               |
| 39. 4   | 80. $\frac{7}{10} = 7/10$ |
| 40. 4   |                           |
| 41. 2   |                           |

# MAP 265 (T2) Issue 8

$$81. \frac{\begin{array}{r} 30\frac{1}{15} \\ + 10\frac{5}{15} \\ + 20\frac{9}{15} \\ \hline 60\frac{15}{15}=61 \end{array}}{60\frac{15}{15}=61} = 61$$

82.  $x^{12}$   
 $\square = 12$

83.  $54 \times 2 = 108$   
 $54 \times \frac{1}{9} = 6$   
 $108 + 6 = 114$

84.  $6 \times 5 \div 2 = 15$  chords

85.  $60 \times 5\% = 60 \times 0.05 = 3$   
 $60 + 3 = \$63.00$

86.  $\frac{1}{2} \times 6 \times 8 = 24$

87.  $\Delta ABC = 30 = \frac{1}{2} \times BH \times AC = \frac{1}{2} \times BH \times 13$

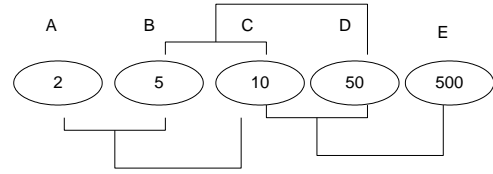
$BH = \frac{60}{13} = 60/13$

88.  $63.75 \div 5 = \$12.75$

89. 19

90. 567 (cards)

See the following figure.

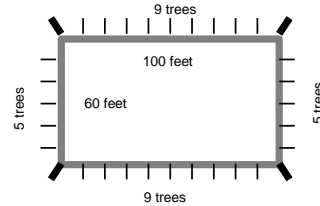


$2 + 5 + 10 + 50 + 500 = 567$

# Answer Key

1. -53
2. -7
3. -8
4. 150
5. 14
6. -11
7. -2
8. -77
9. 10
10. 30
11. 0.04
12. 0.01
13. 100
14. 25
15. 25
16. 16
17. 16
18. 4
19. 0.64
20. 64
21. 0.16
22. 0.0064
23. 0.0016
24. 0.0004
25. -0.5
26. -0.25
27. -0.2
28. -0.125
29. -0.1
30. -10
31. 1089
32.  $108,900 + 3,325 = 112,225$
33. 2809
34. 3969
35. 289
36. 729
37. 1369
38. 2209
39. 3249
40. 196
41.  $91 = 7 \times 13$   
 $2(7 + 13) = 40 \text{ cm}$

42.  $400 - 100 = 300$
43.  $100 \times 53.5 = 5350 \text{ yd}^2$ .
44. On the sides, there are  $9+5+9+5=28$  trees. On the corners, there are 4 trees. Therefore, the total is 32 trees.



45.  $\angle A = 90^\circ$ ,  $\angle B = 60^\circ$ , hence  $\angle C = 30^\circ$ .  
 $\angle B : \angle C = 2:1$
46.  $120 \div 2 = 60$ ,  $60 - 40 = 20$  (width)
47.  $40 \div 4 = 10$
48.  $40 + 10 = 50$  (new length)  
 $20 + 10 = 30$  (new width)
49.  $40 \times 20 = 800$  (old)  
 $50 \times 30 = 1500$  (new)  
the increase =  $1500 - 800 = 700 \text{ sq. in.}$
50.  $60 - 2 \times 15 = 30$  (length)  
 $30 - 10 = 20$  (width)  
 $30 \times 20 = 600 \text{ in}^2$  (area)
51.  $50 - (50/5 \times 3) = 20$
52.  $20 \times (1 - 85\%) = 3$
53.  $3\frac{1}{2} \times 2 = 7$  inches
54.  $48 / ((16/2) \times 1) = 6$
55.  $40/8 \times 1 = 5$
56.  $2 \times 12 \times (1 - 5/8) = 9$
57.  $47 - 12 \times (3 + 1/3) = 7$
58.  $24 \times (1 - 5/6) = 4$
59.  $30 / (1 - 5/8) = 80$
60.  $39 / (4 - 1) \times 1 = 13$
61.  $5\frac{1}{2} = 5 \frac{1}{2}$
62.  $3\frac{7}{12} = 3 \frac{7}{12}$
63. 1.2
64. 6.4
65.  $2\frac{1}{4} \text{ lb} = 2\frac{1}{4} \times 16 \text{ oz} = 36 \text{ oz.}$
66.  $105 \text{ min} = 1 \text{ hr and } 45 \text{ min} = 1\frac{3}{4} = 1 \frac{3}{4} \text{ hr}$
67. 240,000
68. 3120000
69.  $x = 9$

# MAP 265 (T2) Issue 9

70.  $1\frac{1}{2} \times 2\frac{2}{3} = \frac{3}{2} \times \frac{8}{3} = 4$

71.  $\frac{1}{96}$

72. 135%

73. 10

$79 \div 8 = 9R7$

74.  $7.5 \div 3 = 2.5$

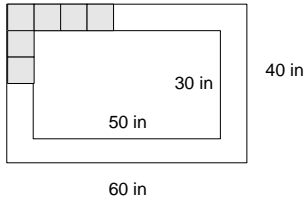
$2.5 \times 140 = 350$  miles

75. The sum is 36.

Dan is 24 and Anna is 12.

$D - A = 12$

76.  $40 \times 60 - 1500 = 900 \text{ in}^2$

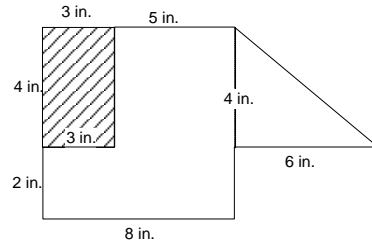


77.  $1 - \frac{1}{3} - \frac{1}{2} \times \frac{2}{3} = \frac{1}{3}$  (unsold)

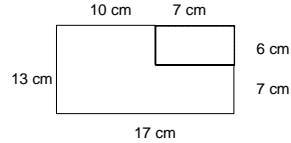
$1 - \frac{1}{3} = \frac{2}{3}$  (sold)

$50 \times 2 = 100$

78.  $8 \times 6 - 3 \times 4 + \frac{1}{2}(4 \times 6) = 48 - 12 + 12 = 48$



79.  $P = 2 \times (13 + 17) = 60$  (cm)



80.  $1 + 20\% = 1.2$

$1.2 \times 12 = \$14.40$

81.  $x^2 - 2x - 35$

82.  $3x^2 - 10x - 8$

83.  $6x^2 + 7x + 2$

84.  $9x^2 - 9x + 2$

85.  $18x^2 + 51x + 8$

86. 3 in (A) & 7 in (B) & 8 in (C) & 10 in (D)

87. 6 in (A) & 5 in (B) & 6 in (C) & 9 in (D)

88. 3 in (A) & 6 in (B) & 7 in (C) & 10 in (D)

89. 4 in (A) & 6 in (B) & 3 in (C) & 9 in (D)

90. 4 in (A) & 5 in (B) & 8 in (C) & 8 in (D)