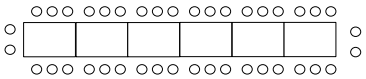
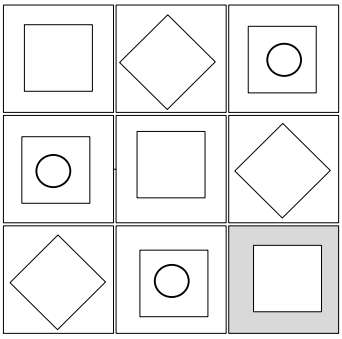
Answer Key

1. 3
2. 2
3. 5.40
4. A = 56
5. 114÷2 = 57
   285÷57 = $\boxed{5}$
6. 24÷6 = 4
   2(4 + 6) = $\boxed{20\text{ ft}}$
7. 6×2×3.14×50÷12 = $\boxed{157\text{ ft}}$
8. 85×4 = 340
   88×5 = 440
   440 - 340 = $\boxed{100}$
9. $30\frac{3}{4}$ - $12\frac{5}{8}$ = $18\frac{1}{8}$ pounds
10. 800×45% = 800×.45 = $360.00
11. 57 - 6×6 = 21
    21×2÷6 = 7 (length of AD)
    7×7 = $\boxed{49}$
12. Brian:
    $\frac{1}{10}$×300 = 30
    50 + 30 = 80
13. Alex: $\frac{1}{6}$×300 = 50
    Brian: 80
    $\boxed{\text{Calvin}}$:
    300 - 50 - 80 = 170
    170÷2 = 85
    85 + 10 = $\boxed{95}$
14. 2(2 + 3) = 10 (people each table)
    40 ÷ 10 = $\boxed{4\text{ tables}}$
15. 40 - 4 = 36
    36÷6 = $\boxed{6\text{ tables}}$



16. 40 - 6 = 34
    34÷4 = 8 R 2
    8 + 1 = $\boxed{9\text{ tables}}$

17. 48÷4 = 12
    12÷3 = 4
18. 4×12 = 48
19. C
20. C
21. C
22. A
23. B
    $\frac{98}{99}=1-\frac{1}{99}$
    $\frac{100}{101}=1-\frac{1}{101}$
24. B
    $\frac{970}{99}=10\times\frac{97}{99}=10\times\left(1-\frac{2}{99}\right)$
    $\frac{990}{101}=10\times\frac{99}{101}=10\times(1-\frac{2}{101})$
25. B
    10 + 20 + 30 + 40 + 50
    = 10×(1 + 2 + 3 + 4 + 5)
26. C
27. A
28. D
29. $1\frac{3}{4}$×4×3 = 21 hours
30. 120÷2 = 60
    60÷3 = 20 (width)
    20×2 = 40 (length)
    20÷2 = 10 (radius)
    $10^2\pi$ = 314
    2×314 = 628 (two circles)
    20×40 = 800
    800 - 628 = $\boxed{172}$
31. A



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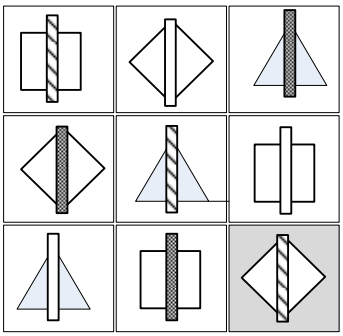

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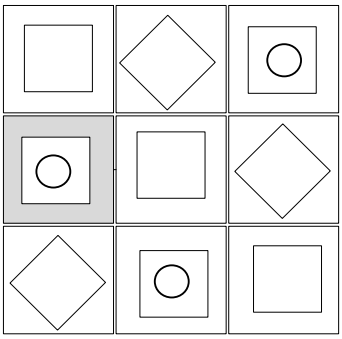

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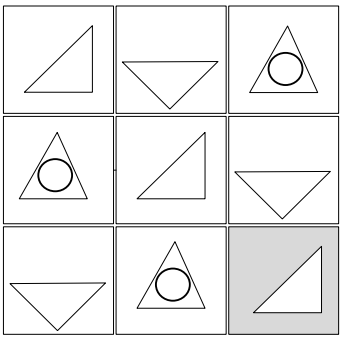

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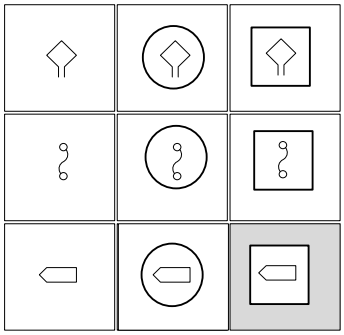

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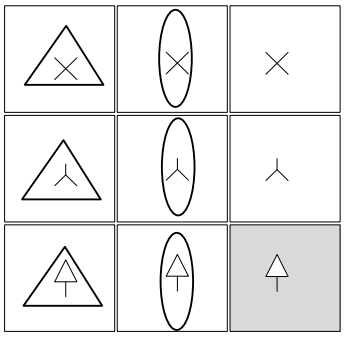

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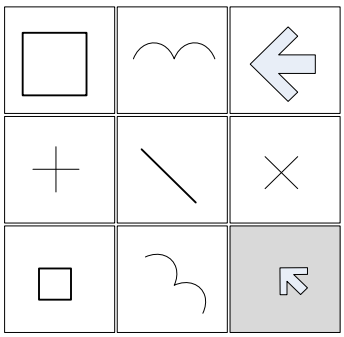

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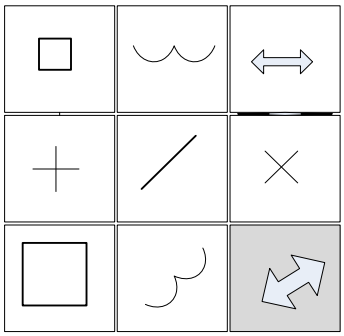

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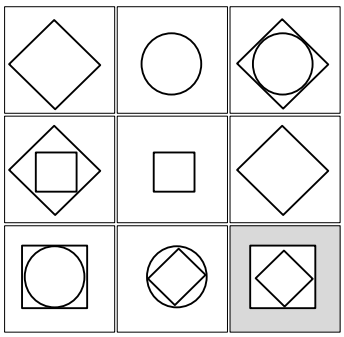
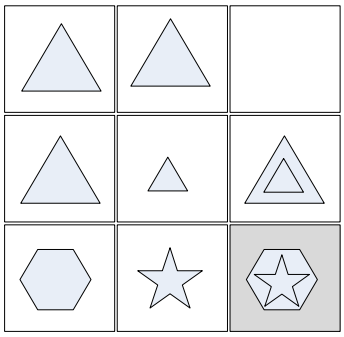
40. 

41. 

42. D
20, 20, 17, 17, 14, 14, 11,
-0 -3 -0 -3 -0 -3 -0 -3

43. C
1.5, 2.3, 3.1, 3.9
+.8 +.8 +.8

44. B
This is a multiplication series; each number is 3 times the previous number.

45. C
The first two letters, PQ, are static. The third letter is in alphabetical order, beginning with R. The number series is in descending order beginning with 5.

46. B
14, 14, 26, 26, 38, 38, 50, $\boxed{50, 62}$
+0 + 12

47. 12 ÷ 2 = 6

48. 25 + 30 = 55
55÷7 =7R6
$\boxed{\text{Saturday}}$ = 6 days earlier than Friday

49. 6 min

50. 9 min

51. $\frac{40}{50} = \frac{4}{5}$
$\frac{4}{5} \times 3 = 2.4$ min

52. 16+6 = 22 (cups)

53. 160/800 = 0.2 = 20%

54. Reed: 83 TDs
Rice: 160 TDs

55. 1

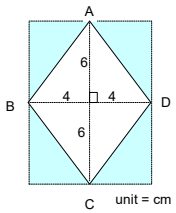
56. $\frac{7}{8}$

57. 55

58. 120

59. 49

60. $4(\frac{1}{2}\times6\times4) = 48$
or
$\frac{1}{2}(12\times8) = 48$ since the (largest) rectangle has an area of 96 and the each triangle is half of a (smaller) rectangle in area.



61. 75 - 11 - 15 - 5 = 44

62. There are $\boxed{\text{7 students}}$ (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.

63. $1\frac{3}{4} + 2\frac{1}{6} = 3\frac{11}{12}$ mi

64. 4 books

65. Brian: \$2.00
Alex: \$6.00

66. Charlie:90÷9 = \$10
Brian:2×Charlie = \$20
Alex:3×Brian = \$60

67. Charlie:540÷9 = \$60
Brian:2×Charlie = \$120
Alex:3×Brian = \$360

68. $-\frac{1}{7} = \frac{-1}{7} = \frac{1}{-7}$

69. 3

70. 0.9
71. 88.9
72. 521.6
73. 8.26
74. 25%
75. 50%×☐ = 10
    0.5×☐ = 10
    ☐ = 20
76. 9999
77. 16
78. 12.12
79. ☐ = 8
80. 49
81. 0.192
82. 5
83. 59.8
84.
```
2 |1 2 0
   2|6 0
   2|3 0
   3|1 5
      5
```
$120=2\times2\times2\times3\times5=2^3\times3\times5$
85. 14.62
86. 750
87. 40÷30 = 1.33… = 133%
88. $1\frac{1}{4}:2\frac{1}{2}$ = 1:2
    3×2 = 6 cups
89. Julio =15
    Erin = 30
    Kesha = 37
    Total = $\boxed{82}$
90. (a) 47 - 3 - 14 - 1 - 14 = $\boxed{15}$
    (b) 97 - 47 = $\boxed{50\text{ B.C.}}$
91. 6849 - 6750 = $\boxed{99}$
92. 10×10×10×10 = 10,000
93. 25
94. 144÷24 = 6 gal
95. $1 - \frac{1}{2} = \frac{1}{2}$ (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
96. The decrease of 8 fewer pencils results in a difference of
    8.45 - 6.05 = 2.40.
    Each pencil costs
    2.40 ÷ 8 = 0.30.
    Therefore, 2 dozen pencils cost
    24×0.30 = 7.20.
    We conclude that a pen cost
    8.45 - 7.20 = $\boxed{\$1.25}$.