

# Answer Key

- |                                                                                                                                             |                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. C                                                                                                                                        | 35. 10                                                                                                                                                                                                                                                           |
| 2. B                                                                                                                                        | 36. 12                                                                                                                                                                                                                                                           |
| The two parts of the first figure are rearranged and joined along the longer sides. The common side is then lost to form the second figure. | 37. 13                                                                                                                                                                                                                                                           |
| 3. A                                                                                                                                        | 38. 14                                                                                                                                                                                                                                                           |
| 4. D                                                                                                                                        | 39. 21                                                                                                                                                                                                                                                           |
| 5. B                                                                                                                                        | 40. 22                                                                                                                                                                                                                                                           |
| 6. C                                                                                                                                        | 41. B                                                                                                                                                                                                                                                            |
| 1, 2, 3                                                                                                                                     | A palm tree is to a pine tree as a bathing suit is to a parka. This relationship shows an opposite—warm to cold. Palm trees grow in warm climates and pine trees grow in cold climates. Bathing suits are worn in warm weather; parkas are worn in cold weather. |
| 2, 4, 6                                                                                                                                     |                                                                                                                                                                                                                                                                  |
| 3, 6, <input type="checkbox"/> 9                                                                                                            |                                                                                                                                                                                                                                                                  |
| 7. A                                                                                                                                        | 42. C                                                                                                                                                                                                                                                            |
| 8. A                                                                                                                                        | A trapeze performer is to a clown as swings are to a sliding board. This relationship shows a classification. Trapeze performers and clowns are found at circuses; swings and sliding boards are found on playgrounds.                                           |
| 9. C                                                                                                                                        | 43. C                                                                                                                                                                                                                                                            |
| The third figure in each row comprises of parts which are not common to the first two figures.                                              | House is to tent as truck is to wagon. The house is a more sophisticated form of shelter than the tent; the truck is a more sophisticated mode of transportation than the wagon.                                                                                 |
| 10. B                                                                                                                                       | 44. A                                                                                                                                                                                                                                                            |
| 11. 26                                                                                                                                      | A snow-capped mountain is to a crocodile as a cactus is to a starfish. This relationship shows an opposition. The crocodile does NOT belong on the mountain; the starfish does NOT belong in the desert.                                                         |
| 12. 36                                                                                                                                      | 45. D                                                                                                                                                                                                                                                            |
| 13. 52                                                                                                                                      | Hose is to firefighter as needle is to nurse. This relationship shows the tools of the trade. A hose is a tool used by a firefighter; a needle is a tool used by a nurse.                                                                                        |
| 14. 65                                                                                                                                      | 46. B                                                                                                                                                                                                                                                            |
| 15. 24                                                                                                                                      | Dishes are to kitchen sink as car is to hose. Dishes are cleaned in the sink; the car is cleaned with the hose.                                                                                                                                                  |
| 16. 44                                                                                                                                      | 47. A                                                                                                                                                                                                                                                            |
| 17. 88                                                                                                                                      | Knitting needles are to sweater as a computer is to a report. This relationship shows the tool needed to make a product. The knitting needles are used to create the sweater; the computer is used to write a report.                                            |
| 18. 66                                                                                                                                      | 48. B                                                                                                                                                                                                                                                            |
| 19. 60                                                                                                                                      | Bread is to knife as log is to ax. This relationship shows function. The knife cuts the bread; the ax chops the log.                                                                                                                                             |
| 20. 96                                                                                                                                      |                                                                                                                                                                                                                                                                  |
| 21. 99                                                                                                                                      |                                                                                                                                                                                                                                                                  |
| 22. 84                                                                                                                                      |                                                                                                                                                                                                                                                                  |
| 23. 39                                                                                                                                      |                                                                                                                                                                                                                                                                  |
| 24. 72                                                                                                                                      |                                                                                                                                                                                                                                                                  |
| 25. 33                                                                                                                                      |                                                                                                                                                                                                                                                                  |
| 26. 48                                                                                                                                      |                                                                                                                                                                                                                                                                  |
| 27. 22                                                                                                                                      |                                                                                                                                                                                                                                                                  |
| 28. 108                                                                                                                                     |                                                                                                                                                                                                                                                                  |
| 29. 55                                                                                                                                      |                                                                                                                                                                                                                                                                  |
| 30. 77                                                                                                                                      |                                                                                                                                                                                                                                                                  |
| 31. 6                                                                                                                                       |                                                                                                                                                                                                                                                                  |
| 32. 7                                                                                                                                       |                                                                                                                                                                                                                                                                  |
| 33. 8                                                                                                                                       |                                                                                                                                                                                                                                                                  |
| 34. 9                                                                                                                                       |                                                                                                                                                                                                                                                                  |

## GT3 (Fall, 2019) Issue 1

49. A	82. 28
Cup is to bowl as vacuum cleaner is to broom.	83. 112
This is another relationship about function. The	84. 98
cup and bowl are both used for eating. The	85. 60
vacuum cleaner and broom are both used for	86. 105
cleaning.	87. 126
50. D	88. 91
A bookshelf is to a book as a refrigerator is to a	89. 135
carton of milk. The book is placed on a bookshelf;	90. 104
the milk is placed in a refrigerator.	91. 25
51. 3	92. 28
52. 26	93. 29
53. 1	94. 30
54. 28	95. 31
55. 14	96. 32
56. 26	97. 33
57. 11	98. 35
58. 5	99. 37
59. 31	100. 38
60. 34	101. 8
61. 27	102. 3
62. 17	103. 10
63. 16	104. 11
64. 16	105. 6
65. 9	106. 30
66. 29	107. 11
67. 15	108. 23
68. 11	109. 13
69. 19	110. 6
70. 32	111. 5
71. 78	112. 21
72. 30	113. 21
73. 84	114. 9
74. 45	115. 9
75. 70	116. 1
76. 56	117. 20
77. 117	118. 32
78. 90	119. 7
79. 120	120. 10
80. 42	
81. 75	

# Answer Key

- |                          |       |
|--------------------------|-------|
| 1. D                     | 29. B |
| Feral and tame are       | 30. C |
| antonyms; ephemeral      | 31. D |
| and immortal are         | 32. D |
| antonyms.                | 33. B |
| rancid: stale            | 34. A |
| nettlesome: irritating.  | 35. A |
| 2. D                     | 36. B |
| To be phobic is to be    | 37. B |
| extremely fearful; to be | 38. C |
| asinine is to be         | 39. A |
| extremely silly.         | 40. B |
| finicky: picky           | 41. A |
| 3. D                     | 42. C |
| A binding surrounds a    | 43. C |
| book; a frame            | 44. D |
| surrounds a picture.     | 45. C |
| 4. D                     | 46. B |
| 5. C                     | 47. D |
| 6. C                     | 48. A |
| 7. B                     | 49. D |
| 8. D                     | 50. B |
| 9. A                     | 51. C |
| 10. B                    | 52. D |
| 11. C                    | 53. C |
| 12. D                    | 54. A |
| 13. C                    | 55. C |
| 14. B                    | 56. D |
| 15. D                    | 57. B |
| 16. D                    | 58. A |
| 17. B                    | 59. D |
| 18. C                    | 60. C |
| 19. B                    | 61. A |
| 20. D                    | 62. B |
| 21. C                    | 63. C |
| 22. D                    | 64. B |
| 23. D                    |       |
| 24. A                    |       |
| 25. B                    |       |
| 26. A                    |       |
| 27. B                    |       |
| 28. A                    |       |

# Answer Key

1. A	26. 48
2. B	27. 64
In each row, the figures are getting laterally inverted in each step. The number of components or the quantities are either increasing or decreasing from left to right sequentially.	28. 51
	29. 153
	30. 54
3. B	31. 39
here are 3 types of faces, 3 types of bodies, 3 types of hands and 3 types of legs, each of which is used only once in a single row. So, the features which have not been used in the first two figures of the third row would combine to produce the missing figure.	32. 41
	33. 42
	34. 43
	35. 44
	36. 46
4. A	37. 49
5. C	38. 7
In each row, the number of elements in the third figure is equal to the difference in the number of elements in the first and second figures. Also, the third figure has the same types of elements (if any) as the elements in the first figure.	39. 10
	40. 11
	41. 5
	42. 11
6. A	43. 11
The number of components in each row either increases or decreases from left to right. In the third row, it increases.	44. 29
	45. 11
7. B	46. 5
8. C	47. 19
9. D	48. 9
10. C	49. 10
In each row, the triangle follows the circle, the square follows the triangle and the circle follows the square. In case of the third row, the above rule exists for the inner as well as the outer elements.	50. 12
	51. 17
	52. 30
	53. 13
11. 90	54. 33
12. 36	55. 18
13. 34	56. 23
14. 68	57. 23
15. 85	58. 15
16. 72	59. 12
17. 102	60. 3
18. 96	61. A
19. 32	62. B
20. 136	63. C
21. 119	64. A
22. 144	65. D
23. 112	66. D
24. 80	67. C
25. 128	

## GT3 (Fall, 2019) Issue 2

68. A

69. **Answer: A**

**Explanation:**

**In the first series, the closed figure loses sides one by one and the open figure gains sides one by one as the series proceeds.**

70. **Answer: C**

**Explanation:**

In the third series, the image becomes simpler as the series proceeds.

71. 14

72.  $3 \times 24 = 72$

73.  $1+2+3+4+5+10+9+8+7+6 = 5 \times 11 = 55$

74.  $3 \times 3 \times 3 = 27$

75.  $\angle 1 = 50^\circ$   
 $\angle 2 = 40^\circ$

76.  $3 \times 2 \times 12 = 72$  (cups)  
 $72 \div 4 = 18$  qt

77.  $72 \div 6 = 12$

78.  $3 \times 3 \times 2 = 18$  spiders

79. 12 black blocks

80. 10 white blocks

81.  $2 \times 50 = 100$   
 $100 \div 20 = 5$   
 $5 \times 5 = 25$  gal

82.  $4 \times 4 \times 4 = 64$   
 $5 \times 5 + 2 \times 3 \times 3 + 3 = 25 + 18 + 3 = 46$   
 $64 - 46 = 18$

83.  $1:30 + 0:45 + 0:20 = 2:35$   
 $3:15 + 2:35 = 5:50$   
 $6:30 - 5:50 = 0:40 = 40$  min

84. C

85.  $65, 82$   
 $5^2 + 1 = 25$   
 $6^2 + 1 = 37$   
 $7^2 + 1 = 50$   
 $8^2 + 1 = 65$   
 $9^2 + 1 = 82$

86.  $6 \times 4 \times 2 = 48$   
 $\frac{1}{2} \times 3 \times 3 \times 4 = 18$   
 $48 + 18 = 66$

87.  $4 \times 4 \times 4 = 64$  (total)  
 $2 \times 2 \times 2 = 8$  (unpainted)  
 $64 - 8 = 56$

88.  $2 \times 18 = 36$  times

The following will appear every 12 hours.

4	1:1	1:11	11:1	11:11
4	2:2	2:22	22:2	22:22
2	3:3	3:33		
2	4:4	4:44		
2	5:5	5:55		
1	6:6			
1	7:7			
1	8:8			
+1	9:9			
18				

89.  $60 \times 85 = 5100$

90.  $\frac{6}{10} = \frac{3}{5}$

91. C

92.  $3 + 1 = 4$

$1200 \div 4 = 300$

$300 \times 3 = 900$

93.  $192 \div 24 = 8$

$2(8 + 24) = 64$

94.  $1.11 - 1.0011 = 0.1089$

95. 6 different possible numbers:  
357, 375, 537, 573, 735, 753

96. D

See the following relations.

$C > M$

$K > B | T$

$C > M > K > B | T$

97.  $9.36 \div 4 = \$2.34$

98.  $35 \times 2 = 70$   
 $70 \times 2 = 140$ ¢ = \$1.40

99. 82 R 4

100. C  
 $1:35 + 1:15 + 0:45 = 3:35$

101.  $35 + 46 = 81$

102.  $20 - 2 = 18$   
 $18 \div 3 = 6.00$

103. 2 ways as below:  
 $4 + 16 = 20$   
 $5 + 15 = 20$

104.  $48 \times 25 = 12 \times 4 \times 25 = 12 \times 100$

105.  $3 \times 3 = 9$  (Lucy's share alone)  
 $9 \times 4 = 36$

106. C

107. A

There are five different arrangements shown as

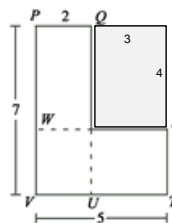
below.

	5 cm	2 cm
1	9 rods	3 rods
2	7 rods	8 rods
3	5 rods	13 rods
4	3 rods	18 rods
5	1 rods	23 rods

108.  $27 \times 2 \div 6 = 9$  cm

109. Method I)

$5 \times 7 - 3 \times 4 = \underline{23}$



Method II)

$2 \times 7 = 14$

$3 \times 5 = 15$

$2 \times 3 = 6$  (overlapping)

$14 + 15 - 6 = \underline{23}$

110.  $3 + 2 = 5$

They need 2 canoes.

$2 \times 7.5 \times 3 = \boxed{\$45}$

# Answer Key

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. A</p> <p>2. B<br/>Coffee goes into a cup and soup goes into a bowl. Choices a and c are incorrect because they are other utensils. The answer is not choice d because the word food is too general.</p> <p>3. B<br/>Elated is the opposite of despondent; enlightened is the opposite of ignorant.</p> <p>4. D<br/>Candid and indirect refer to opposing traits. Honest and untruthful refer to opposing traits. The answer is not choice a because frank means the same thing as candid. Wicked (choice b) is incorrect because even though it refers to a negative trait, it does not mean the opposite of honest. Choice c is incorrect because truthful and honest mean the same thing.</p> <p>5. D<br/>Siamese is a kind of cat; romaine is a kind of lettuce.</p> <p>6. C<br/>A skein is a quantity of yarn; a ream is a quantity of paper.</p> | <p>7. C<br/>Obsession is a greater degree of interest; fantasy is a greater degree of dream.</p> <p>8. B<br/>To tailor a suit is to alter it; to edit a manuscript is to alter it.</p> <p>9. A</p> <p>10. D</p> <p>11. B</p> <p>12. B</p> <p>13. A</p> <p>14. C</p> <p>15. C</p> <p>16. A</p> <p>17. D<br/>A window is made up of panes, and a book is made up of pages. The answer is not choice a because a novel is a type of book. The answer is not choice b because glass has no relationship to a book. Choice c is incorrect because a cover is only one part of a book; a book is not made up of covers.</p> <p>18. A<br/>Guide and direct are synonyms, and reduce and decrease are synonyms. The answer is not choice b or d because neither means the same as reduce. Choice c is incorrect</p> | <p>because increase is the opposite of reduce.</p> <p>19. B<br/>A petal is a part of a flower; a tire is a part of a bicycle.</p> <p>20. D<br/>Devotion is characteristic of a monk; wanderlust is characteristic of a rover.</p> <p>21. C</p> <p>22. A</p> <p>23. C</p> <p>24. A</p> <p>25. B</p> <p>26. D</p> <p>27. C</p> <p>28. B</p> <p>29. A</p> <p>30. C</p> <p>31. D</p> <p>32. B</p> <p>33. A</p> <p>34. A</p> <p>35. C</p> <p>36. B</p> <p>37. B</p> <p>38. C</p> <p>39. C</p> <p>40. D</p> <p>41. C</p> <p>42. B</p> <p>43. A</p> <p>44. C</p> <p>45. D</p> <p>46. B</p> <p>47. A</p> <p>48. A</p> <p>49. B</p> <p>50. B</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- 51. D
- 52. A
- 53. D
- 54. D
- 55. B
- 56. A
- 57. D
- 58. D
- 59. C
- 60. A
- 61. D
- 62. C
- 63. B
- 64. D
- 65. C
- 66. A
- 67. C
- 68. A
- 69. B
- 70. D
- 71. C
- 72. C
- 73. D
- 74. A



# Answer Key

- |                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. B                                                                                                                                                                                                                                                                                                                                                         | 42. 11                                                                                                                                                                                                                                                                                                                                                                                  |
| 2. A                                                                                                                                                                                                                                                                                                                                                         | 43. 24                                                                                                                                                                                                                                                                                                                                                                                  |
| In each row, the central part of the first figure rotates either $90^\circ$ CW or $90^\circ$ ACW to form the central part of the second figure and the central part of the first figure rotates through $180^\circ$ to form the central part of the third figure. Also, in each row, there are 3 types of side elements - rectangles, circles and triangles. | 44. 32                                                                                                                                                                                                                                                                                                                                                                                  |
| 3. D                                                                                                                                                                                                                                                                                                                                                         | 45. 25                                                                                                                                                                                                                                                                                                                                                                                  |
| 4. D                                                                                                                                                                                                                                                                                                                                                         | 46. 16                                                                                                                                                                                                                                                                                                                                                                                  |
| 5. D                                                                                                                                                                                                                                                                                                                                                         | 47. 6                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. D                                                                                                                                                                                                                                                                                                                                                         | 48. 33                                                                                                                                                                                                                                                                                                                                                                                  |
| In each row, the third figure is a combination of the first and the second figure.                                                                                                                                                                                                                                                                           | 49. 8                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. B                                                                                                                                                                                                                                                                                                                                                         | 50. 3                                                                                                                                                                                                                                                                                                                                                                                   |
| In each row, the second figure is obtained by shading one of the four parts of the first figure and the third figure is obtained by shading two out of the four parts of the first figure.                                                                                                                                                                   | 51. 21                                                                                                                                                                                                                                                                                                                                                                                  |
| 8. C                                                                                                                                                                                                                                                                                                                                                         | 52. 13                                                                                                                                                                                                                                                                                                                                                                                  |
| 9. D                                                                                                                                                                                                                                                                                                                                                         | 53. 16                                                                                                                                                                                                                                                                                                                                                                                  |
| 10. A                                                                                                                                                                                                                                                                                                                                                        | 54. 13                                                                                                                                                                                                                                                                                                                                                                                  |
| 11. 84                                                                                                                                                                                                                                                                                                                                                       | 55. 23                                                                                                                                                                                                                                                                                                                                                                                  |
| 12. 176                                                                                                                                                                                                                                                                                                                                                      | 56. 12                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. 189                                                                                                                                                                                                                                                                                                                                                      | 57. 7                                                                                                                                                                                                                                                                                                                                                                                   |
| 14. 88                                                                                                                                                                                                                                                                                                                                                       | 58. 16                                                                                                                                                                                                                                                                                                                                                                                  |
| 15. 66                                                                                                                                                                                                                                                                                                                                                       | 59. 14                                                                                                                                                                                                                                                                                                                                                                                  |
| 16. 42                                                                                                                                                                                                                                                                                                                                                       | 60. 14                                                                                                                                                                                                                                                                                                                                                                                  |
| 17. 115                                                                                                                                                                                                                                                                                                                                                      | 61. <b>Answer: C</b>                                                                                                                                                                                                                                                                                                                                                                    |
| 18. 110                                                                                                                                                                                                                                                                                                                                                      | <b>Explanation:</b>                                                                                                                                                                                                                                                                                                                                                                     |
| 19. 168                                                                                                                                                                                                                                                                                                                                                      | Only the third series follows the given rule.                                                                                                                                                                                                                                                                                                                                           |
| 20. 132                                                                                                                                                                                                                                                                                                                                                      | 62. <b>Answer: D</b>                                                                                                                                                                                                                                                                                                                                                                    |
| 21. 198                                                                                                                                                                                                                                                                                                                                                      | <b>Explanation:</b>                                                                                                                                                                                                                                                                                                                                                                     |
| 22. 126                                                                                                                                                                                                                                                                                                                                                      | Only the fourth series follows the given rule.                                                                                                                                                                                                                                                                                                                                          |
| 23. 147                                                                                                                                                                                                                                                                                                                                                      | 63. <b>C</b>                                                                                                                                                                                                                                                                                                                                                                            |
| 24. 63                                                                                                                                                                                                                                                                                                                                                       | 64. <b>A</b>                                                                                                                                                                                                                                                                                                                                                                            |
| 25. 69                                                                                                                                                                                                                                                                                                                                                       | 65. <b>B</b>                                                                                                                                                                                                                                                                                                                                                                            |
| 26. 44                                                                                                                                                                                                                                                                                                                                                       | 66. <b>C</b>                                                                                                                                                                                                                                                                                                                                                                            |
| 27. 154                                                                                                                                                                                                                                                                                                                                                      | 67. <b>B</b>                                                                                                                                                                                                                                                                                                                                                                            |
| 28. 92                                                                                                                                                                                                                                                                                                                                                       | <b>In the second series, the image becomes simpler as the series proceeds. The trapezium inside the cloud loses its side one by one as the sequence proceeds one step forward to the right side.</b>                                                                                                                                                                                    |
| 29. 105                                                                                                                                                                                                                                                                                                                                                      | 68. <b>Answer: A</b>                                                                                                                                                                                                                                                                                                                                                                    |
| 30. 46                                                                                                                                                                                                                                                                                                                                                       | <b>Explanation:</b>                                                                                                                                                                                                                                                                                                                                                                     |
| 31. 18                                                                                                                                                                                                                                                                                                                                                       | Only in the first series, the image rotates 45 degrees as it moves towards the right side. In the second series, it turns 30 degrees; in third series, it rotates 90 degrees, and in the fourth series, it rotates by 15 degrees as it moves one step forward towards the right side. See the corner of the image, which forms a small square, to understand the movement of the image. |
| 32. 28                                                                                                                                                                                                                                                                                                                                                       | 69. <b>Answer: D</b>                                                                                                                                                                                                                                                                                                                                                                    |
| 33. 19                                                                                                                                                                                                                                                                                                                                                       | <b>Explanation:</b>                                                                                                                                                                                                                                                                                                                                                                     |
| 34. 30                                                                                                                                                                                                                                                                                                                                                       | Only in the fourth series, an image formed by curved lines alternates with an image formed by straight lines. The images in the first, second and                                                                                                                                                                                                                                       |
| 35. 31                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                         |
| 36. 21                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                         |
| 37. 32                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                         |
| 38. 33                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                         |
| 39. 23                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                         |
| 40. 35                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                         |
| 41. 6                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                         |

third series do not follow this rule.

70. **Answer:** A

**Explanation:**

Only in the first series, the sides of the shapes increase by one as we move one step forward towards the right side, e.g., the shapes in the first series have 3, 4, 5 and 6 sides respectively. In the remaining series, the sides of the shapes are not increasing by one as we move towards the right side.

71. 200  
 72. 50  
 73. 138  
 74. 96  
 75. 192  
 76. 125  
 77. 48  
 78. 144  
 79. 150  
 80. 216  
 81. 184  
 82. 175  
 83. 161  
 84. 72  
 85. 225  
 86. 207  
 87. 75  
 88. 168  
 89. 100  
 90. 120  
 91. C  
 92. C  
 93. B  
 94. B  
 95.  $\frac{120}{360} = \frac{1}{3}$   
 $1 - \frac{1}{3} = \frac{2}{3}$   
 96.  $27 - 19 = 8$   
 $31 - 30 = 1$   
 $8 + 1 = 9$   
 97.  $300 \times 15 = 4500$

98. 7  
 99.  $24 - 9 = 15$   
 $15 \div 3 = 5$   
 100. 775  
 101.  $\frac{4 \text{ questions}}{200 + 100 + 50 + 25 = 375}$   
 102.  $25 + 3 \times 100 + 200 = 525$   
 $25 + 2 \times 50 + 2 \times 200 = 525$   
 103.  $2 \times 5 + 3 \times 15 = \$55$   
 104.  $10 + 2 \times 12 + 15 = \$0.49$   
 105.  $0.50 - 0.49 = \$0.01$   
 106.  $32 \div 2 = \$16$   
 107.  $6 \times 4 = 8 \times 3 \text{ hrs}$   
 108.  $2 \times 3 = 2 + 4 = 6$   
 $2 \times 12 = 8 + 16 = 24$   
 109. The hourly hand moves  $30^\circ$  each hour. Within 15 minutes, the hourly hand move  
 $\frac{1}{4} \times 30^\circ = 7.5^\circ$   
 So, the angle is  
 $60 - 7.5 = 52.5$   
 110.  $23 + 32 = 55$   
 $85 - 55 = 30$   
 One more 32¢ will be the least, so a total of  $2 \times 32 + 23 = 87¢$   
 111.  $1 + 4 = 5$  (or  $4 + 1 = 5$ )  
 112.  $9 - 3 = 6$  (or  $9 - 6 = 3$ )  
 113.  $7 + 10 + 8 = \$25.00$   
 114.  $3 \times 14 = 42 \text{ inches}$   
 115. C  
 By regrouping,  
 $1 + \overbrace{-2 + 3} + \overbrace{-4 + 5} + \overbrace{-6 + 7} + \overbrace{-8 + 9}$   
 $= 1 + 1 + 1 + 1 + 1$   
 $= 5$   
 116.  $36 \div 12 = 3$   
 $3 \times 25 = \$75.00$   
 117.  $4 \times 3 = 12$   
 118. 100  
 119. D  
 120. D

# Answer Key


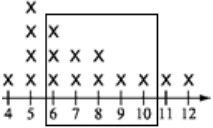
- |                            |                           |                            |
|----------------------------|---------------------------|----------------------------|
| 1. C                       | all parts of a chair. Not | 50. B                      |
| 2. A                       | all chairs have cushions. | 51. B                      |
| 3. B                       | 32. B                     | 52. A                      |
| 4. D                       | 33. D                     | 53. A                      |
| 5. D                       | 34. A                     | If someone has been        |
| 6. D                       | 35. C                     | humiliated, they have      |
| 7. A                       | 36. B                     | been greatly               |
| 8. B                       | 37. C                     | embarrassed. If            |
| 9. C                       | 38. B                     | someone is terrified,      |
| 10. A                      | 39. D                     | they are extremely         |
| 11. C                      | Tire, steering wheel, and | frightened. The answer     |
| 12. C                      | engine are all parts of a | is not choice b because    |
| 13. A                      | car.                      | an agitated person is not  |
| 14. B                      | 40. D                     | necessarily frightened.    |
| 15. A                      | Parsley, basil, and dill  | Choices c and d are        |
| 16. A                      | are types of herbs.       | incorrect because          |
| 17. A                      | Mayonnaise is not an      | neither word expresses     |
| 18. D                      | herb.                     | a state of being           |
| 19. C                      | 41. A                     | frightened.                |
| 20. C                      | A psychologist treats a   | 54. A                      |
| 21. D                      | neurosis; an              | An optimist is a person    |
| 22. D                      | ophthalmologist treats a  | whose outlook is           |
| 23. D                      | cataract.                 | cheerful. A pessimist is   |
| Acute, right, and obtuse   | 42. A                     | a person whose outlook     |
| are geometric terms        | A group of fish is a      | is gloomy. The answer      |
| describing particular      | school; a group of        | is not choice b because    |
| angles. Parallel refers to | wolves is a pack.         | a pessimist does not       |
| two lines that never       | 43. C                     | have to be mean.           |
| intersect.                 | Upon harvesting, cotton   | Choices c and d are        |
| 24. B                      | is gathered into bales;   | incorrect because          |
| 25. B                      | grain is gathered into    | neither adjective          |
| 26. D                      | shocks.                   | describes the outlook of   |
| 27. C                      | 44. C                     | a pessimist.               |
| Heading, body, and         | 45. D                     | 55. C                      |
| closing are all parts of a | 46. A                     | A finch is a type of bird; |
| letter; the letter is the  | 47. D                     | a Dalmatian is a type of   |
| whole, not a part.         | 48. C                     | dog.                       |
| 28. D                      | scrambled words           | 56. B                      |
| 29. D                      | whort: worthless          | One explores to            |
| 30. C                      | nadir: south, opposite    | discover; one researches   |
| 31. C                      | the zenith (north)        | to learn.                  |
| Seat, rung, and leg are    | 49. C                     |                            |

57. B  
A cobbler makes and repairs shoes; a contractor builds and repairs buildings.
58. D  
A dirge is a song used at a funeral; a jingle is a song used in a commercial.
59. B
60. A  
doleful: very much sad
61. C
62. A
63. A
64. B
65. D
66. A
67. D
68. B
69. C
70. B
71. C
72. C
73. D
74. A
75. B
76. A
77. A
78. C
79. C
80. A
81. A
82. B
83. D
84. B
85. C
86. A
87. A
88. B
89. B
90. C
91. A
92. C
93. D
94. B
95. A
96. B
97. C
98. B
99. D
100. C
101. Balanced; matching; equal
102. Adjusting to a different situation; getting used to
103. Constant; continual; not ending
104. Sensitive; susceptible; open to
105. Opposing; acting or pushing against
106. -slowly push beyond what is comfortable, a little at a time
107. Students should note the following:  
-it can decrease risk of injury during sports  
-prevents loss of bone and muscle when you get older
108. -chemicals released into the bloodstream that make you feel happier and reduce pain
109. Students should note the following:  
-exercise the whole body  
-exercise against resistance to get defined muscles  
-use a medicine ball during crunches, increasing the weight over a period of weeks
110. Students should discuss the following:  
-some advice about exercise was considered
- true but never proven by science  
-some advice may contain bits of true information, but also includes information that is not totally true  
-outdated advice is passed down from generation to generation and just accepted as true

# Answer Key

- |                                                                                                                                                                                                                                                        |                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. B                                                                                                                                                                                                                                                   | 32. 3                                                                                                                                                                     |
| 2. C                                                                                                                                                                                                                                                   | 33. 5                                                                                                                                                                     |
| In each row, the third figure is a collection of the common elements (line segments) of the first and the second figures.                                                                                                                              | 34. 9                                                                                                                                                                     |
| 3. C                                                                                                                                                                                                                                                   | 35. 6                                                                                                                                                                     |
| There are 3 types of shadings in the triangles, 3 types of legs, 3 positions of circles, each of which is used only once in a single row. The circle is shaded in alternate figures.                                                                   | 36. 10                                                                                                                                                                    |
| 4. B                                                                                                                                                                                                                                                   | 37. 5                                                                                                                                                                     |
| 5. B                                                                                                                                                                                                                                                   | 38. 12                                                                                                                                                                    |
| Horizontal flip                                                                                                                                                                                                                                        | 39. 8                                                                                                                                                                     |
| 6. B                                                                                                                                                                                                                                                   | 40. 9                                                                                                                                                                     |
| 7. C                                                                                                                                                                                                                                                   | 41. 9                                                                                                                                                                     |
| The third figure in each row comprises of the parts common to the first two figures.                                                                                                                                                                   | 42. 12                                                                                                                                                                    |
| 8. D                                                                                                                                                                                                                                                   | 43. 32                                                                                                                                                                    |
| 9. D                                                                                                                                                                                                                                                   | 44. 9                                                                                                                                                                     |
| 10. B                                                                                                                                                                                                                                                  | 45. 8                                                                                                                                                                     |
| In each row, the second figure is obtained by rotating the first figure through $90^\circ$ CW or $90^\circ$ ACW and adding a circle to it. Also, the third figure is obtained by adding two circles to the first figure (without rotating the figure). | 46. 10                                                                                                                                                                    |
| 11. 56                                                                                                                                                                                                                                                 | 47. 17                                                                                                                                                                    |
| 12. 130                                                                                                                                                                                                                                                | 48. 10                                                                                                                                                                    |
| 13. 78                                                                                                                                                                                                                                                 | 49. 14                                                                                                                                                                    |
| 14. 189                                                                                                                                                                                                                                                | 50. 10                                                                                                                                                                    |
| 15. 216                                                                                                                                                                                                                                                | 51. 10                                                                                                                                                                    |
| 16. 81                                                                                                                                                                                                                                                 | 52. 12                                                                                                                                                                    |
| 17. 54                                                                                                                                                                                                                                                 | 53. 13                                                                                                                                                                    |
| 18. 140                                                                                                                                                                                                                                                | 54. 15                                                                                                                                                                    |
| 19. 243                                                                                                                                                                                                                                                | 55. 4                                                                                                                                                                     |
| 20. 84                                                                                                                                                                                                                                                 | 56. 15                                                                                                                                                                    |
| 21. 234                                                                                                                                                                                                                                                | 57. 8                                                                                                                                                                     |
| 22. 208                                                                                                                                                                                                                                                | 58. 8                                                                                                                                                                     |
| 23. 135                                                                                                                                                                                                                                                | 59. 22                                                                                                                                                                    |
| 24. 104                                                                                                                                                                                                                                                | 60. 15                                                                                                                                                                    |
| 25. 162                                                                                                                                                                                                                                                | 61. D                                                                                                                                                                     |
| 26. 112                                                                                                                                                                                                                                                | A fish is to a dragonfly as a chicken is to corn. Fish eat insects; chickens eat corn.                                                                                    |
| 27. 156                                                                                                                                                                                                                                                | 62. A                                                                                                                                                                     |
| 28. 108                                                                                                                                                                                                                                                | Pyramid is to triangle as cube is to square. This relationship shows dimension. The triangle shows one dimension of the pyramid; the square is one dimension of the cube. |
| 29. 52                                                                                                                                                                                                                                                 | 63. B                                                                                                                                                                     |
| 30. 182                                                                                                                                                                                                                                                | Closet is to shirt as kitchen cabinets are to cans of food. The shirt is stored in the closet; the food is stored in the cabinets.                                        |
| 31. 4                                                                                                                                                                                                                                                  | 64. B                                                                                                                                                                     |
|                                                                                                                                                                                                                                                        | Hat and mittens are to desert as snorkel and flippers are to snow. This relationship shows an opposition. The hat and mittens are NOT worn in                             |

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- the desert; the snorkel and flippers are NOT worn in the snow.
65. B  
Towel is to bathtub as chest of drawers is to bed. The towel and bathtub are both found in a bathroom; the chest and the bed are both found in a bedroom.
66. C  
Fly and termite are insects as snake and lizard are reptile.
67. C  
A shirt is to a button as a belt is to a belt buckle. A button is used to close a shirt; a belt buckle is used to close a belt.
68. B  
A toddler is to an adult as a caterpillar is to a butterfly. This relationship shows the young and the adult. The caterpillar is an early stage of the adult butterfly.
69. D  
Newspaper is to book as trumpet is to banjo. The newspaper and book are to read; the trumpet and banjo are musical instruments to play.
70. A
71. 240
72. 174
73. 224
74. 210
75. 116
76. 60
77. 87
78. 150
79. 90
80. 180
81. 232
82. 120
83. 203
84. 145
85. 168
86. 58
87. 252
88. 196
89. 261
90. 270
91. 100
92.  $18 \times 6 = 108$
93. D  
red      rose  
purple   daisy  
red      dahlia
94.  $12 \times 5 = 60$
95. D
96. A
97. \$1.02
98. \$1.06
99.  $80 - 56 = \boxed{24}$
100. After 7 days
101. 98
102.  $3 \times (3+6) = \underline{27}$
103.  $5 \times 2 = 10$   
 $10 - 1 = \boxed{9}$
104.  $2 \times 2 \times 5 = 20$
105. D
106.  $6 \times 15 = 90$   
 $90 - 76 = 14$   
 $14 \div (6 - 4) = 7$  (smaller tables)  
 $15 - 7 = \boxed{8}$  (larger tables)  
Check:  
 $8 \times 6 + 7 \times 4 = 48 + 28 = 76$
107.  $2 \times (11+19) = \boxed{60 \text{ meters}}$
- 
108. 8
- 
109.  $999 - 101 = \underline{898}$
110. 0.05, 0.25, 0.37, 0.4, 0.81
111. B
112. D
113. D
114.  $\frac{5}{8} \div \frac{1}{4} = 2.5$   
 $2.5 \times 20 = 50 \text{ min}$
115.  $2 \times 12 = 24$   
 $\frac{1}{4} \times 24 \times 25 = 150$   
 $\frac{1}{2} \times 24 \times 10 = 120$   
 $\frac{1}{4} \times 24 \times 5 = 30$   
 $150 + 120 + 30 = 300\text{¢} = \underline{\$3.00}$
116.  $2 \times 8.75 = 17.50$   
 $20 - 17.50 = \underline{2.50}$
117.  $4 \times 4 \times 4 = 64$
118.  $2 \times 2 \times 2 \times 2 = \underline{16 \text{ pcs}}$
119. D
120.  $5 + 4 + 6 = 15$   
 $\frac{3}{8} + \frac{1}{4} + \frac{5}{8} = 1\frac{1}{4}$   
total =  $\boxed{16\frac{1}{4}}$

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121.  $3 \times 12 \times 2 = \boxed{72 \text{ inches}}$

122. 16

123.  $180 - 80 = \boxed{100^\circ}$

124. 30

125. A = 5

B =  $\boxed{7}$

126. 142

$$\begin{array}{r} 142 \\ 6 \overline{) 852} \\ \underline{6} \phantom{0} \\ 25 \\ \underline{24} \phantom{0} \\ 12 \\ \underline{12} \\ 0 \end{array}$$

127.  $6 \times 5 = 30$

$30 \div 3 = \boxed{10 \text{ lb}}$

128. C

129.  $130 - 114 = 16$

$16 \div 4 = 4$

$3 \times 4 = 12$

$12 + 122 = \underline{134}$

130. A

A = 9

D = 1

B = 8

E = 0

C = 5

DCEE =  $\boxed{1500}$

# Answer Key

- |                           |                            |                           |
|---------------------------|----------------------------|---------------------------|
| 1. A                      | 30. D                      | performs at a concert.    |
| 2. C                      | 31. C                      | Choices a, c, and d are   |
| 3. B                      | Tulip, rose, and daisy     | incorrect because none    |
| 4. A                      | are all types of flowers.  | is people who perform.    |
| 5. C                      | A bud is not.              | 48. A                     |
| 6. D                      | 32. D                      | Careful and cautious are  |
| 7. A                      | Evaluate, assess, and      | synonyms (they mean       |
| 8. B                      | appraise are all           | the same thing).          |
| 9. D                      | synonyms; instruct does    | Boastful and arrogant     |
| 10. B                     | not mean the same          | are also synonyms. The    |
| 11. B                     | thing.                     | answer is not choice b    |
| 12. D                     | 33. C                      | because humble means      |
| 13. D                     | A leopard, cougar, and     | the opposite of boastful. |
| 14. C                     | lion all belong to the cat | The answer is not         |
| 15. D                     | family; an elephant does   | choice c or d because     |
| 16. A                     | not.                       | neither means the same    |
| 17. A                     | 34. D                      | as boastful.              |
| 18. B                     | The cornea, retina, and    | 49. D                     |
| 19. A                     | pupil are all parts of the | An aerie is where an      |
| 20. D                     | eye.                       | eagle lives; a house is   |
| 21. B                     | 35. B                      | where a person lives.     |
| 22. A                     | Brass is, not pure, a      | 50. D                     |
| Freeway, interstate, and  | mixture of copper and      | To drizzle is to rain     |
| expressway are all high   | zinc.                      | slowly; to jog is to run  |
| speed highways; a street  | 36. C                      | slowly.                   |
| is for low-speed traffic. | 37. D                      | 51. D                     |
| 23. D                     | 38. A                      | A waitress works in a     |
| Niagara Fall is not a     | 39. C                      | restaurant; a teacher     |
| river.                    | 40. A                      | works in a school.        |
| 24. B                     | Flourish, prosper, and     | 52. D                     |
| An ounce measures         | thrive are all synonyms;   | A conductor leads an      |
| weight; the other         | excite does not mean       | orchestra; a skipper      |
| choices measure length.   | the same thing.            | leads a crew.             |
| 25. C                     | 41. A                      | 53. D                     |
| 26. B                     | 42. B                      | Depressed is an           |
| 27. C                     | 43. A                      | intensification of sad;   |
| 28. A                     | 44. B                      | exhausted is an           |
| 29. C                     | 45. A                      | intensification of tired. |
| Biology, chemistry, and   | 46. D                      | 54. D                     |
| zoology are all branches  | 47. B                      | 55. C                     |
| of science. Theology is   | An actor performs in a     | 56. A                     |
| the study of religion.    | play. A musician           | 57. B                     |



58. B  
Pegasus: a winged horse  
(mythology)
59. B
60. A
61. C
62. B
63. B
64. C
65. D
66. D
67. A
68. C
69. A
70. C
71. C
72. B
73. B
74. B
75. A
76. C
77. C
78. D
79. B
80. D
81. A
82. C
83. B
84. C
85. A
86. B
87. A
88. C
89. B
90. C
91. C
92. A
93. D
94. B
95. C
96. C
97. A
98. B
99. D
100. A
101. Crabby;  
temperamental
102. Acting without  
thought of  
consequences; hasty;  
spontaneous
103. Competitor;  
challenger
104. Rebellious; radical;  
progressive
105. Rule by king or  
queen; crown; single  
supreme power
106. - fate knocking at  
the door  
- death was coming for  
him
107. Students can name  
any three:  
-Fifth Symphony  
-Ninth Symphony  
-Für Elise  
-Moonlight Sonata  
-Ode to Joy
108. -impulsive  
- emotional  
-passionate  
-Romanticism category
109. Students should  
note something like the  
following:  
- At first Beethoven is  
impressed by  
Napoleon's  
revolutionary ways  
-Beethoven is happy to  
get rid of the French  
monarchy  
-when Napoleon  
declares himself  
emperor, Beethoven is  
furious because a single  
ruler is the same as a  
monarchy  
- Beethoven felt that  
Napoleon had betrayed  
the French people
110. Students should  
note something similar  
to the following:  
- Composers must have  
much energy, love,  
passion for music they  
write  
-composers must not be  
discouraged, but  
continue "burning" like  
fire  
-Example: even when  
he was deaf,  
Beethoven's love for  
music continued to  
prevail and he  
continued to write  
-example: he once  
refused to continue  
performing while  
people talked; showing  
his extreme passion for  
the music

# Answer Key

- |                                                                                                                                                                                                                                                                                                                                             |                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 1. A                                                                                                                                                                                                                                                                                                                                        | 32. 17                                                   |
| 2. B                                                                                                                                                                                                                                                                                                                                        | 33. 26                                                   |
| 3. B                                                                                                                                                                                                                                                                                                                                        | 34. 28                                                   |
| 4. C                                                                                                                                                                                                                                                                                                                                        | 35. 30                                                   |
| The second figure is a part of the first figure (but is not exactly the same as the first figure).                                                                                                                                                                                                                                          | 36. 32                                                   |
| 5. D                                                                                                                                                                                                                                                                                                                                        | 37. 17                                                   |
| 6. C                                                                                                                                                                                                                                                                                                                                        | 38. 35                                                   |
| The second figure is obtained from the first figure by moving the line segment to the opposite side of the square boundary and replacing it with two similar line segments. Also, the element in the lower-left corner gets replaced by two similar elements - one placed in the upper-left and the other placed in the lower-right corner. | 39. 36                                                   |
| 7. D                                                                                                                                                                                                                                                                                                                                        | 40. 18                                                   |
| 8. A                                                                                                                                                                                                                                                                                                                                        | 41. 10                                                   |
| 9. D                                                                                                                                                                                                                                                                                                                                        | 42. 15                                                   |
| 10. A                                                                                                                                                                                                                                                                                                                                       | 43. 10                                                   |
| In each row, the second figure is obtained from the first figure by reversing the direction of the RHS arrow and the third figure is obtained from the second figure by reversing the direction of both the arrows.                                                                                                                         | 44. 29                                                   |
| 11. 160                                                                                                                                                                                                                                                                                                                                     | 45. 11                                                   |
| 12. 128                                                                                                                                                                                                                                                                                                                                     | 46. 13                                                   |
| 13. 96                                                                                                                                                                                                                                                                                                                                      | 47. 15                                                   |
| 14. 256                                                                                                                                                                                                                                                                                                                                     | 48. 7                                                    |
| 15. 279                                                                                                                                                                                                                                                                                                                                     | 49. 15                                                   |
| 16. 64                                                                                                                                                                                                                                                                                                                                      | 50. 8                                                    |
| 17. 217                                                                                                                                                                                                                                                                                                                                     | 51. 16                                                   |
| 18. 288                                                                                                                                                                                                                                                                                                                                     | 52. 19                                                   |
| 19. 93                                                                                                                                                                                                                                                                                                                                      | 53. 5                                                    |
| 20. 124                                                                                                                                                                                                                                                                                                                                     | 54. 10                                                   |
| 21. 155                                                                                                                                                                                                                                                                                                                                     | 55. 16                                                   |
| 22. 132                                                                                                                                                                                                                                                                                                                                     | 56. 11                                                   |
| 23. 99                                                                                                                                                                                                                                                                                                                                      | 57. 7                                                    |
| 24. 248                                                                                                                                                                                                                                                                                                                                     | 58. 24                                                   |
| 25. 62                                                                                                                                                                                                                                                                                                                                      | 59. 20                                                   |
| 26. 192                                                                                                                                                                                                                                                                                                                                     | 60. 16                                                   |
| 27. 224                                                                                                                                                                                                                                                                                                                                     | 61. $75 - 53 = \underline{22c}$                          |
| 28. 165                                                                                                                                                                                                                                                                                                                                     | 62. $7 \times 20 = 140$                                  |
| 29. 186                                                                                                                                                                                                                                                                                                                                     | 63. $2 \times 4 \times 30 = \underline{\$240}$           |
| 30. 66                                                                                                                                                                                                                                                                                                                                      | 64. $\frac{1}{5}$                                        |
| 31. 12                                                                                                                                                                                                                                                                                                                                      | 65. 46 (Each number is 7 greater than the previous one.) |
|                                                                                                                                                                                                                                                                                                                                             | 66. A: 4                                                 |
|                                                                                                                                                                                                                                                                                                                                             | B: 8                                                     |
|                                                                                                                                                                                                                                                                                                                                             | C: 7                                                     |
|                                                                                                                                                                                                                                                                                                                                             | $7 \times 4 = \underline{28}$                            |
|                                                                                                                                                                                                                                                                                                                                             | 67. $32 \times \frac{1}{2} = 16$                         |
|                                                                                                                                                                                                                                                                                                                                             | 68. $2 \times 32 = 64$                                   |
|                                                                                                                                                                                                                                                                                                                                             | $\frac{1}{4} \times 64 = 16$                             |
|                                                                                                                                                                                                                                                                                                                                             | $64 - 16 = 48$                                           |

## GT3 (Fall, 2019) Issue 5

69. a) 2  
b) 4  
c) 22
70. A, C
71. 2 quarters and 5 dimes
72.  $52 \div 2 = \underline{26}$
73.  $2002 - 1843 = 159$
74.  $12 + 6 = 18$   
 $18 \div 3 = \underline{6 \text{ cakes}}$
75.  $36 \div 4 = 9$   
 $9 \times 9 = 81 \text{ cm}^2$
76.  $50 \times 2 = 100$   
 $100 \times 4 = 400$   
 $400 \times 7 = 2800$
77.  $4 \times 30 = 120$   
 $3 \times 25 = 75$   
 $120 - 75 = 45$
78.  $\frac{1}{4} \times 20 = 5$   
 $20 - 5 = 15$
79.  $(4 + 3 + 7 + 6) \div 4 = \underline{5 \text{ pounds}}$
80.  $30 \div 15 = 2$   
 $2 \times 7 = \underline{14}$
81.  $15 \times 3 = 45$   
 $15 + 45 = \underline{60}$
82.  $4 \times 31 = 124 \text{ meals}$
83. a)  $1800 \div 100 = 18$   
b)  $1800 \div 90 = 20$
84.  $1 \times 5 = 5$   
 $5 \times 5 = 25$
- $25 \times 5 = 125$   
 $125 \times 5 = 625$
85.  $35 - 7.5 - 21 - 2 = 4.5$   
 $4.5 \div 3 = \$1.50$
86.  $390 - 130 = 260$   
 $260 \div 130 = 2$   
 $2 \times 4 = 8 \text{ weeks}$
87.  $10 - 3 = 7 \text{ (now)}$   
 $7 - 3 = 4 \text{ (3 years ago)}$
88.  $2 \times 18 = 36$   
 $36 - 4 = 32$
89.  $2001 - 1992 + 20 = 29$
90.  $53 \div 8 = 6 \text{ R } 5$   
A)  $6 + 1 = 7$ , Monday + 7 = Monday  
B) 5 pages
91. 3 sisters
92.  $15 \div 5 = 3$   
 $3 \times 3 = \underline{\$9.00}$
93. 60
94. 2000
95.  $53 - 5 = 48 \text{ (Cheryl)}$   
 $48 \div 2 = 24 \text{ (Cindy)}$
96.  $8 \times 4 = 32$
97.  $8:15 - 7:20 = 55 \text{ min}$
98.  $400 \times 0.7 = 280$
99.  $6:45 + 1:45 = 8:30 \text{ P.M.}$
100.  $57 - 25 = 32$   
 $32 \div 4 = 8 \text{ friends}$

# Answer Key

- |                            |                           |                             |
|----------------------------|---------------------------|-----------------------------|
| 1. D                       | cape are all landforms; a | noticeable characteristic   |
| 2. B                       | bay is a body of water.   | is its elasticity. Choice d |
| 3. B                       | 29. B                     | is incorrect because        |
| 4. B                       | 30. B                     | rubber has flexibility.     |
| 5. A                       | 31. D                     | 45. B                       |
| 6. D                       | The core, seeds, and      | Verve and enthusiasm        |
| 7. C                       | pulp are all parts of an  | are synonyms; devotion      |
| 8. C                       | apple. A slice would be   | and reverence are           |
| 9. C                       | a piece taken out of an   | synonyms.                   |
| 10. B                      | apple.                    | 46. D                       |
| 11. B                      | 32. B                     | A bristle is a part of a    |
| 12. D                      | 33. C                     | brush; a key is a part of   |
| 13. D                      | 34. A                     | a piano.                    |
| 14. C                      | 35. B                     | 47. A                       |
| 15. C                      | 36. B                     | A palm (tree) has           |
| 16. D                      | 37. C                     | fronds; a porcupine has     |
| 17. A                      | 38. D                     | quills.                     |
| 18. C                      | 39. C                     | 48. D                       |
| 19. B                      | 40. A                     | Dependable and              |
| 20. A                      | 41. B                     | capricious are              |
| 21. B                      | 42. B                     | antonyms; capable and       |
| 22. D                      | 43. D                     | inept are antonyms.         |
| 23. B                      | An odometer is an         | 49. D                       |
| The guitar, violin, and    | instrument used to        | 50. C                       |
| cello are stringed         | measure mileage. A        | 51. D                       |
| instruments; the flute is  | compass is an             | 52. C                       |
| a wind instrument.         | instrument used to        | 53. B                       |
| 24. C                      | determine direction.      | 54. D                       |
| 25. B                      | Choices a, b, and c are   | 55. D                       |
| 26. D                      | incorrect because none    | 56. D                       |
| The first three choices    | is an instrument.         | 57. C                       |
| are all synonyms.          | 44. C                     | Secretly is the opposite    |
| 27. A                      | A sponge is a porous      | of openly, and silently is  |
| An index, glossary, and    | material. Rubber is an    | the opposite of noisily.    |
| chapter are all parts of a | elastic material. Choice  | Choices a and b are         |
| book. Choice a does not    | a is incorrect because    | clearly not the opposites   |
| belong because the         | rubber would not          | of silently. Choice d       |
| book is the whole, not a   | generally be referred to  | means the same thing as     |
| part.                      | as massive. The answer    | silently.                   |
| 28. C                      | is not choice b because   | 58. B                       |
| A peninsula, island, and   | even though rubber is a   | A yard is a larger          |
|                            | solid, its most           | measure than an inch (a     |

- yard contains 36 inches). A quart is a larger measure than an ounce (a quart contains 32 ounces). Gallon (choice a) is incorrect because it is larger than a quart. Choices c and d are incorrect because they are not units of measurement.
59. C  
A cacophony is an unpleasant sound; a stench is an unpleasant smell.
60. D  
Umbrage and offense are synonyms; elation and jubilation are synonyms.
61. C  
62. D  
63. B  
64. A  
65. D  
66. B  
67. A  
68. C  
69. C  
70. B  
71. A  
72. A  
73. C  
74. B  
75. C  
76. D  
77. C  
78. A  
79. D  
80. D  
81. B  
82. A  
83. D  
84. B  
85. C  
86. D
87. A  
88. A  
89. Written notes; characters; symbols  
90. Exiting; emotional; moving  
91. Spontaneity; ad-libbing; without practice  
92. Type; category; style  
93. Beat; rhythm; pace  
94. -flutes  
-violins  
-trombones  
-clarinets  
95. -cello  
-electric guitar  
96. -Each musician might change either of the following:  
-tempo/speed  
-dynamics/volume  
97. Students should discuss the following:  
-The variables include meter, tempo, dynamics, notes, number of instruments, type of instruments, voices/singing  
-it sounds similar because musicians usually play it as written rather than improvising  
98. Students should note something similar to the following:  
-classical music is usually played as written; not much variance of tempo, dynamics, notes  
-jazz music is often improvised; performers do not play exactly as written, but make up parts as they play  
-jazz musicians interpret the music more; may change tempo, dynamics, notes  
-each jazz performer may play the same piece with his or her own style  
-classical music is more straightforward, precise
99. A  
100. A  
101. D  
102. B  
103. D  
104. B  
105. C  
106. A  
107. A  
108. A  
109. C  
110. A

# Answer Key

- |                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 1. D                                                                                                                                                                                                                                                                                                                                                                                 | 37. 4                                                                                                                         |
| 2. B                                                                                                                                                                                                                                                                                                                                                                                 | 38. 27                                                                                                                        |
| 3. D                                                                                                                                                                                                                                                                                                                                                                                 | 39. 7                                                                                                                         |
| In each row, there are 3 types of shadings of circles - a circle is unshaded, another circle has its right half shaded with vertical lines and yet another circle has its upper half shaded with horizontal lines. There are three specified positions of the two triangles each of which is used only once in a row. Also, two of the figures in each row have one triangle shaded. | 40. 3                                                                                                                         |
| 4. A                                                                                                                                                                                                                                                                                                                                                                                 | 41. 17                                                                                                                        |
| 5. B                                                                                                                                                                                                                                                                                                                                                                                 | 42. 30                                                                                                                        |
| 6. 105                                                                                                                                                                                                                                                                                                                                                                               | 43. 19                                                                                                                        |
| 7. 231                                                                                                                                                                                                                                                                                                                                                                               | 44. 16                                                                                                                        |
| 8. 272                                                                                                                                                                                                                                                                                                                                                                               | 45. 19                                                                                                                        |
| 9. 238                                                                                                                                                                                                                                                                                                                                                                               | 46. 9                                                                                                                         |
| 10. 280                                                                                                                                                                                                                                                                                                                                                                              | 47. 33                                                                                                                        |
| 11. 198                                                                                                                                                                                                                                                                                                                                                                              | 48. 31                                                                                                                        |
| 12. 136                                                                                                                                                                                                                                                                                                                                                                              | 49. 6                                                                                                                         |
| 13. 204                                                                                                                                                                                                                                                                                                                                                                              | 50. 24                                                                                                                        |
| 14. 297                                                                                                                                                                                                                                                                                                                                                                              | 51. 12                                                                                                                        |
| 15. 315                                                                                                                                                                                                                                                                                                                                                                              | 52. 17                                                                                                                        |
| 16. 102                                                                                                                                                                                                                                                                                                                                                                              | 53. 24                                                                                                                        |
| 17. 175                                                                                                                                                                                                                                                                                                                                                                              | 54. 23                                                                                                                        |
| 18. 245                                                                                                                                                                                                                                                                                                                                                                              | 55. 17                                                                                                                        |
| 19. 306                                                                                                                                                                                                                                                                                                                                                                              | 56. 91                                                                                                                        |
| 20. 68                                                                                                                                                                                                                                                                                                                                                                               | 57. $8 - \frac{1}{2}(12) = 2$                                                                                                 |
| 21. 210                                                                                                                                                                                                                                                                                                                                                                              | 58. $32 \div 4 = 8$<br>$8 \times 3 = 24$                                                                                      |
| 22. 70                                                                                                                                                                                                                                                                                                                                                                               | 59. $1 - \frac{1}{4} = \frac{3}{4}$<br>$120 \times \frac{3}{4} = \underline{\$90.00}$                                         |
| 23. 140                                                                                                                                                                                                                                                                                                                                                                              | 60. $12 \times \frac{3}{2} = 18$                                                                                              |
| 24. 264                                                                                                                                                                                                                                                                                                                                                                              | 61. $\frac{5}{15} = \frac{1}{3}$<br>So, the denominator is <span style="border: 1px solid black; padding: 0 2px;">15</span> . |
| 25. 170                                                                                                                                                                                                                                                                                                                                                                              | 62. 3, 6, 9                                                                                                                   |
| 26. 37                                                                                                                                                                                                                                                                                                                                                                               | 63. $2013 - 1989 - 6 = 18$                                                                                                    |
| 27. 19                                                                                                                                                                                                                                                                                                                                                                               | 64. half dozen = $12 \div 2 = 6$<br>$6 \times 10 = 60$ ounces                                                                 |
| 28. 20                                                                                                                                                                                                                                                                                                                                                                               | 65. $91 + 81 + 92 = 264$<br>$264 \div 3 = 88$                                                                                 |
| 29. 27                                                                                                                                                                                                                                                                                                                                                                               | 66. $50 \times 16 = 800$ ounces                                                                                               |
| 30. 28                                                                                                                                                                                                                                                                                                                                                                               | 67. $80 \div 2 = 40$<br>$40 \times 5 = 200$                                                                                   |
| 31. 43                                                                                                                                                                                                                                                                                                                                                                               | 68. $\frac{1}{3} \times 36 = 12$<br>$\frac{1}{4} \times 36 = 9$<br>$10 + 12 + 9 = 31$<br>$36 - 31 = \underline{\$5.00}$       |
| 32. 22                                                                                                                                                                                                                                                                                                                                                                               | 69. $7 \times 0.25 + 5 \times 0.5 = 1.75 + 2.5 = \underline{\$2.00}$                                                          |
| 33. 30                                                                                                                                                                                                                                                                                                                                                                               | 70. $\frac{1}{3}(11 + 12 + 13) = \underline{12}$                                                                              |
| 34. 46                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                               |
| 35. 24                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                               |
| 36. 24                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                               |

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71. D
72. 2 quarters + 2 nickels + 3 pennies = 67¢
73.  $3 \times 7 \times 4 = \underline{84 \text{ meals}}$
74.  $4 \times 8 = 32$
75.  $\frac{1}{2} \times 12 = 6$   
 $6 + 5 = \underline{11}$
76.  $12.60 \times \frac{1}{2} = 6.30$   
 $6.30 \times 5 = \$31.50$
77. D:  $14 - 8 = 6$   
 C:  $6 \div 2 = 3$   
 B:  $10 - 3 = 7$
78. 1 (Add  $\frac{1}{4}$ .)
79.  $2 \times 26.5 = 53$   
 $66 - 53 = 13$
80.  $3 \times 6 = \underline{18 \text{ ft}}$
81. They all have the same number of pencils.  
 B:  $\frac{1}{3}$   
 C:  $\frac{1}{2}(1 - \frac{1}{3}) = \frac{1}{3}$   
 A:  $1 - \frac{1}{3} - \frac{1}{3} = \frac{1}{3}$
82. Andrea has the least.  
 B:  $\frac{1}{2}$
- C:  $\frac{1}{3}(1 - \frac{1}{2}) = \frac{1}{6}$   
 A:  $1 - \frac{1}{2} - \frac{1}{6} = \frac{1}{3}$
83.  $\frac{2}{3} \times 18 = 12$   
 $12 \times 15 = \$180$
84.  $\boxed{4} \times \frac{1}{8} = \frac{1}{2}$
85.  $\frac{1}{3} \times 24 = 8$   
 $24 - 8 = 16$
86. C
87.  $18 - 9 = 9$   
 $36 - 9 = \underline{27}$
88.  $6 \times 5 \times 4 = \underline{120 \text{ hours}}$
89. 1 more softball
90. David:  $89 + 4 = 93$   
 Ashley:  $\frac{1}{3} \times 93 = 31$   
 Stephen:  $2 \times 31 = \underline{62 \text{ pounds}}$
91. B
92.  $(3 + 4 + 5) \div 3 = 4$
93.  $(13 + 15) \div 2 = 14$
94.  $(26 + 20) \div 2 = 23$
95.  $(80 + 100 + 95 + 85) \div 4 = 90$

# Answer Key

- |                            |                            |                           |
|----------------------------|----------------------------|---------------------------|
| 1. D                       | 30. B                      | of a professor; being     |
| 2. B                       | Two, six, and eight are    | imaginative is a trait of |
| 3. D                       | all even numbers; three    | an inventor.              |
| 4. D                       | is an odd number.          | 44. C                     |
| 5. A                       | 31. C                      | 45. C                     |
| 6. B                       | 32. C                      | 46. C                     |
| 7. C                       | The scythe, knife, and     | 47. C                     |
| 8. C                       | saw are all cutting tools. | 48. A                     |
| 9. B                       | Pliers are tools, but they | 49. A                     |
| 10. C                      | are not used for cutting.  | 50. D                     |
| 11. C                      | 33. D                      | 51. A                     |
| 12. B                      | Rye, sourdough, and        | 52. D                     |
| 13. A                      | pumpnickel are types       | A gym is a place where    |
| 14. B                      | of bread. A loaf is not a  | people exercise. A        |
| 15. B                      | bread type.                | restaurant is a place     |
| 16. B                      | 34. B                      | where people eat. Food    |
| 17. B                      | A branch, leaf, and root   | (choice a) is not the     |
| 18. B                      | are all parts of a tree.   | answer because it is      |
| 19. A                      | The dirt underneath is     | something people eat,     |
| 20. D                      | not a part of the tree.    | not a place or location   |
| 21. D                      | 35. B                      | where they eat. The       |
| 22. C                      | 36. D                      | answer is not choice b    |
| 23. D                      | 37. D                      | or c because neither      |
| 24. C                      | 38. C                      | represents a place where  |
| The wing, fin, and         | 39. C                      | people eat.               |
| rudder are all parts of an | Defendant, prosecutor,     | 53. D                     |
| airplane.                  | and judge are all          | A marathon is a long      |
| 25. D                      | persons involved in a      | race and hibernation is a |
| 26. D                      | trial. A trial is not a    | lengthy period of sleep.  |
| Fair, just, and equitable  | person.                    | The answer is not         |
| are all synonyms           | 40. D                      | choice a or b because     |
| meaning impartial.         | 41. D                      | even though a bear and    |
| Favorable means            | A pedal propels a          | winter are related to     |
| expressing approval.       | bicycle; an oar propels a  | hibernation, neither      |
| 27. B                      | canoe.                     | completes the analogy.    |
| Dodge, duck, and avoid     | 42. A                      | Choice c is incorrect     |
| are all synonyms           | A spy acts in a            | because sleep and         |
| meaning evade. Flee        | clandestine manner; an     | dream are not             |
| means to run away          | accountant acts in a       | synonymous.               |
| from.                      | meticulous manner.         | 54. D                     |
| 28. A                      | 43. B                      | A pen is a tool used by   |
| 29. C                      | Being erudite is a trait   | a poet. A needle is a     |



- tool used by a tailor.  
The answer is not choice a, b, or c because none is a person and therefore cannot complete the analogy.
55. A  
Pastoral describes rural areas; metropolitan describes urban areas.
56. A  
An odometer measures distance; a scale measures weight.
57. A  
Jaundice is an indication of a liver problem; rash is an indication of a skin problem.
58. C  
Pulsate and throb are synonyms, as are examine and scrutinize.
59. D
60. B
61. B
62. A
63. C
64. B
65. C
66. A
67. A
68. D
69. C
70. B
71. C
72. B
73. D
74. C
75. C
76. D
77. B
78. C
79. A
80. B
81. A
82. C
83. B
84. C
85. D
86. A
87. B
88. D
89. To mix and re-record a song to make a new version; to combine musical elements
90. Person who establishes something with a partner
91. Hesitant; unwilling; unenthusiastic
92. Physical stance; body positions
93. Learn; become proficient; acquire skills
94. -cooperation  
-teamwork  
-respect  
-how to be a lady or gentleman
95. -started with only 30 students in one fifth-grade classroom; now has more than 7,000 students in 68 NYC public schools
96. -rumba  
-tango  
-swing  
-merengue  
-fox-trot
97. Students should note something similar to the following:  
-ballroom dancing has been around since the Middle Ages (500-1500)  
-was popular at fairs and festivals in the 1400s  
-dances came from all over the world  
-Rumba: Spanish, African, Cuban roots  
-Tango: Argentina  
-Swing: American jazz  
-Merengue: Dominican Republic  
-Fox-trot: American  
-Waltz  
-Disco  
-Macarena
98. Students should note the following; answers will vary:  
-dancing and playing sports both require skills such as: balance, coordination, concentration, physical conditioning, teamwork, endurance, following directions  
-students can compare to a specific sport they play  
-students should explain why they would or would not like to learn to dance at school
99. B
100. C
101. A
102. D
103. B
104. B
105. B
106. A
107. D
108. C
109. C
110. A