

# Answer Key

1. 8
2.  $-\frac{1}{7}$
3. .000005
4. .00006
5. 21
6. 0.0039
7.  $1\frac{2}{3}$
8. 800
9. 3
10. 8000000
11.  $26 \div 20 = 1.30 = 130\%$
12. 6,000
13. 70
14.  $\frac{2}{3}$
15. -5
16. 84
17. 13
18. 80%
19. 110
20. 88.3
21. {1, 2, 4, 5, 7, 10, 14, 20, 28, 35, 70, 140}
22.  $\Delta = 6$
23. -8
24.  $.012 \times 9 = .108$
25.  $.064 \div 800 = .00008$
26. .0062
27. 0.028
28. 9.72
29. 840
30. -6
31. -11400
32. 95
33. 188
34. 6,000
35. 351000
36.  $43\% \times 60 = 25.8$
37. 2.54
38. 5.46
39. 3.9
40. 6 R 1
41. 17
42.  $\frac{48}{36} = \frac{4}{3} < \frac{3}{2} = \frac{12}{8}$
43. 3
44.  $\frac{1.3}{26} = \frac{3.9}{7.8}$
45. 5.0
46. 2.03
47. 4.6
48.  $8\frac{1}{12}$
49. 5
50.  $6\frac{1}{4}$
51. 50
52. 2.5
53. 8
54. 24
55. -8
56. 9
57.  $10 \times 16 + 9 = 169$
58.  $10 \times 14 + 4 = 144$
59.  $10 \times 20 + 25 = 225$
60.  $40(42) + 1 = 1681$
61.  $20 \times 22 + 1 = 441$
62.  $30 \times 36 + 9 = 1089$
63.  $20 \times 24 + 4 = 484$
64.  $20 \times 28 + 16 = 576$
65.  $30 \div 40 = 0.75 = 75\%$
66.  $144 \div 160\% = 144 \div 1.6 = 90$
67. 400%
68. 300
69.  $\frac{4}{5} \times 75 = 60$
70. 20
71. 5
72. 5
73.  $140 \times 85\% = 119$
74.  $17 \div 85\% = 20$
75. 5
76.  $\frac{40}{61}$
77. .006
78. .098
79. 80
80.  $.14 \times .7 = .098$

## GTs (CogAT Numbers) (Fall, 2019) Issue 1

80. 0.003

81. 23

82. 700

83. 0

84. 4,000

85. 27.2

86.  $\frac{3}{15} = \frac{1}{5} = 20\%$

87. .04

88. 3.68

89. 4500000

90. 10,000

91. 12,000

92. 101

93. 100

94. 14.62

95.  $48 = 2^4 \times 3$

96.  $1 \times 2 \times 3 \times 4 \times 5 = 120$

# Answer Key

- |                        |                        |                        |
|------------------------|------------------------|------------------------|
| 1. (A) abeyance        | 43. (C) irreconcilable | 85. (C) irreconcilable |
| 2. (D) benignant       | 44. (B) inkling        | 86. (E) mandate        |
| 3. (C) apathetic       | 45. (D) leery          | 87. (F) mistrust       |
| 4. (E) cacophonous     | 46. (A) inadvertently  | 88. (H) obstruction    |
| 5. (B) alacrity        | 47. (B) inkling        | 89. (I) palpable       |
| 6. (C) apathetic       | 48. (E) mandate        | 90. (A) inadvertently  |
| 7. (B) alacrity        | 49. (D) leery          | 91. C                  |
| 8. (D) benignant       | 50. (C) irreconcilable | 92. A                  |
| 9. (E) cacophonous     | 51. (E) pestilence     | 93. B                  |
| 10. (A) abeyance       | 52. (D) palpable       | 94. D                  |
| 11. (E) cursory        | 53. (A) mistrust       | 95. D                  |
| 12. (B) colloquy       | 54. (B) mutinous       | 96. D                  |
| 13. (C) conjure        | 55. (C) obstruction    | 97. A                  |
| 14. (A) chummy         | 56. (A) mistrusted     | 98. B                  |
| 15. (D) convert        | 57. (C) obstruction    | 99. C                  |
| 16. (B) colloquy       | 58. (B) mutinous       | 100. A                 |
| 17. (C) conjured       | 59. (D) palpable       | 101. C                 |
| 18. (A) chummy         | 60. (E) pestilence     | 102. C                 |
| 19. (E) cursory        | 61. (B) alacrity       | 103. A                 |
| 20. (D) converted      | 62. (C) apathetic      | 104. C                 |
| 21. (C) dissolute      | 63. (D) benignant      | 105. C                 |
| 22. (B) dilatory       | 64. (E) cacophonous    | 106. A                 |
| 23. (A) denude         | 65. (F) chummy         | 107. D                 |
| 24. (E) enigmatic      | 66. (A) abeyance       | 108. D                 |
| 25. (D) effectual      | 67. (I) convert        | 109. A                 |
| 26. (E) enigmatic      | 68. (J) cursory        | 110. D                 |
| 27. (C) dissolute      | 69. (G) colloquy       | 111. A                 |
| 28. (A) denuded        | 70. (H) conjure        | 112. B                 |
| 29. (B) dilatory       | 71. (A) denude         | 113. A                 |
| 30. (D) effectual      | 72. (G) facile         | 114. C                 |
| 31. (C) foreordain     | 73. (I) gory           | 115. C                 |
| 32. (D) gory           | 74. (H) foreordain     | 116. B                 |
| 33. (E) idiosyncrasy   | 75. (J) idiosyncrasy   | 117. A                 |
| 34. (A) eventuate      | 76. (B) dilatory       | 118. D                 |
| 35. (B) facile         | 77. (D) effectual      | 119. B                 |
| 36. (C) foreordained   | 78. (C) dissolute      | 120. A                 |
| 37. (E) idiosyncrasies | 79. (E) enigmatic      | 121. C                 |
| 38. (D) gory           | 80. (F) eventuate      | 122. D                 |
| 39. (A) eventuate      | 81. (G) mutinous       | 123. D                 |
| 40. (B) facile         | 82. (J) pestilence     | 124. C                 |
| 41. (A) inadvertently  | 83. (B) inkling        | 125. D                 |
| 42. (E) mandate        | 84. (D) leery          | 126. D                 |

- 127. C
- 128. D
- 129. D
- 130. B
- 131. B
- 132. C
- 133. A
- 134. C
- 135. B
- 136. B
- 137. D
- 138. D
- 139. D
- 140. D

# Answer Key

- |   |                                      |
|---|--------------------------------------|
| 1. -120   | 42. 346                              |
| 2. 1  | 43. 40000                            |
| 3. $.25\% \times 40 = 0.0025 \times 40 = .1$                              | 44. 5.45                             |
| 4. 24   | 45. 0.37                             |
| 5. 9999   | 46. 27300                            |
| 6. 7897.89  | 47. 51400                            |
| 7. 40   | 48. 185                              |
| 8. 580  | 49. A                                |
| 9. 3000   | 50. B                                |
| 10. $130\% (= 26/20 = 1.3)$   | $10 + 20 + 30 + 40 + 50$             |
| 11. 90  | $= 10 \times (1 + 2 + 3 + 4 + 5)$    |
| 12. 280   | 51. C                                |
| 13. 80  | 52. B                                |
| 14. 0.7   | 53. B                                |
| 15. 510   | 54. C                                |
| 16. 4   | 55. D                                |
| 17. 2.5   | 56. B                                |
| 18. 1   | 57. A                                |
| 19. $\frac{1}{5^6}$   | 58. B                                |
| 20. 84  | 59. A                                |
| 21. $\frac{1}{9}$   | 60. A                                |
| 22. $\Delta = 1.2$  | 61. C                                |
| 23. $38.5 \div 55\% = 70$   | 62. D                                |
| 24. $76 \div 95 = .8 = 80\%$  | 63. A                                |
| 25. $72 \div 120 = .6 = 60\%$   | 64. A                                |
| 26. $46 \div 40 = 1.15 = 115\%$   | $5^2 = 25 > 6 \times 4 = 24$         |
| 27. $440 \times 25\% = 110$   | 65. B                                |
| 28. $26 \div 20 = 1.30 = 130\%$   | 66. B                                |
| 29. $40/30 = \frac{4}{3} = 1\frac{1}{3}$                                  | 67. A                                |
| 30. $60\% \times 1600 = 0.6 \times 1600 = 960$                            | $.003^2 = .000009 > .02^3 = .000008$ |
| 31. $0.5/0.75 = \frac{2}{3}$ , and indeed $\frac{2}{3} \times 0.75 = 0.5$ | 68. D                                |
| 32. $20\% \times 750 = 150$   | 69. A                                |
| 33. 2.88  | 70. E                                |
| 34. 120   | 71. B                                |
| 35. 33800   | 72. B                                |
| 36. 4.5   | 73. A                                |
| 37. 0.0225  | 74. B                                |
| 38. 1.85  | 75. B                                |
| 39. 204   | 76. E                                |
| 40. 38000   | 77. A                                |
| 41. 0.0625  | 78. E                                |
|   | 79. C                                |
|   | 80. D                                |

## GTs (CogAT Quantitative Reasoning) (Fall, 2019) Issue 2

- |              |       |
|--------------|-------|
| 81. C        | 91. C |
| 82. C        | 92. D |
| 83. B        | 93. A |
| 84. D        | 94. C |
| 85. C        | 95. D |
| 86. <i>B</i> | 96. D |
| 87. A        | 97. C |
| 88. D        | 98. B |
| 89. B        | 99. A |
| 90. B        |       |

# Answer Key

- |                       |                       |                      |
|-----------------------|-----------------------|----------------------|
| 1. (B) alibi          | 43. (A) incense       | 85. (E) manor        |
| 2. (C) apathy         | 44. (B) innocuous     | 86. (J) pestilential |
| 3. (A) abject         | 45. (D) legion        | 87. (G) myriad       |
| 4. (D) beseech        | 46. (A) incensed      | 88. (B) innocuous    |
| 5. (E) cacophony      | 47. (C) irremediable  | 89. (H) ocher        |
| 6. (A) abject         | 48. (D) Legions       | 90. (A) incense      |
| 7. (E) cacophony      | 49. (E) manor         | 91. C                |
| 8. (C) apathy         | 50. (B) innocuous     | 92. C                |
| 9. (B) alibi          | 51. (A) misuse        | 93. A                |
| 10. (D) beseeched     | 52. (B) myriad        | 94. B                |
| 11. (B) commemorative | 53. (E) pestilential  | 95. A                |
| 12. (D) convivial     | 54. (C) ocher         | 96. A                |
| 13. (A) cilia         | 55. (D) panache       | 97. A                |
| 14. (C) connivance    | 56. (E) pestilential  | 98. D                |
| 15. (E) curt          | 57. (D) panache       | 99. C                |
| 16. (C) connivance    | 58. (B) myriads       | 100. C               |
| 17. (E) curt          | 59. (C) ocher         | 101. D               |
| 18. (A) cilia         | 60. (A) misuse        | 102. C               |
| 19. (D) convivial     | 61. (E) cacophony     | 103. D               |
| 20. (B) Commemorative | 62. (H) connivance    | 104. C               |
| 21. (A) denunciation  | 63. (I) convivial     | 105. B               |
| 22. (E) ennoble       | 64. (F) cilia         | 106. D               |
| 23. (B) dilemma       | 65. (J) curt          | 107. D               |
| 24. (D) effeminate    | 66. (A) abject        | 108. B               |
| 25. (C) distant       | 67. (G) commemorative | 109. D               |
| 26. (A) denunciation  | 68. (B) alibi         | 110. B               |
| 27. (E) ennobled      | 69. (D) beseech       | 111. B               |
| 28. (D) effeminate    | 70. (C) apathy        | 112. C               |
| 29. (B) dilemma       | 71. (J) idyll         | 113. B               |
| 30. (C) distant       | 72. (A) denunciation  | 114. D               |
| 31. (C) foresight     | 73. (D) effeminate    | 115. B               |
| 32. (A) evince        | 74. (I) gossamer      | 116. D               |
| 33. (D) gossamer      | 75. (F) evince        | 117. A               |
| 34. (E) idyll         | 76. (E) ennoble       | 118. A               |
| 35. (B) faction       | 77. (G) faction       | 119. D               |
| 36. (D) gossamer      | 78. (B) dilemma       | 120. D               |
| 37. (A) evinced       | 79. (C) distant       | 121. B               |
| 38. (E) idyll         | 80. (H) foresight     | 122. C               |
| 39. (C) foresight     | 81. (I) panache       | 123. A               |
| 40. (B) factions      | 82. (F) misuse        | 124. D               |
| 41. (E) manor         | 83. (C) irremediable  | 125. C               |
| 42. (C) irremediable  | 84. (D) legion        | 126. C               |

- 127. D
- 128. A
- 129. C
- 130. D
- 131. D
- 132. A
- 133. C
- 134. C
- 135. C
- 136. B
- 137. B
- 138. A
- 139. B
- 140. A
- 141. B
- 142. A
- 143. C
- 144. B
- 145. B
- 146. C
- 147. D
- 148. D
- 149. B
- 150. D
- 151. A
- 152. B
- 153. C
- 154. B
- 155. C
- 156. D
- 157. C
- 158. D
- 159. A
- 160. D



# Answer Key

- |   |  |
|---|--|
| 1. A  | 24. 2  |
| $10 \div 5 + 0.1 = 2.1$   | 25. 0.04   |
| 2. C  | 26. 4  |
| $(\frac{1}{2} + \frac{1}{2}) \times \frac{1}{2} + \frac{3}{4} = \frac{1}{2} + \frac{3}{4} = 1\frac{1}{4}$ | 27. 39   |
| 3. A  | 28. $20 \div \frac{2}{5} = 50$   |
| $(1 + 3) \times \frac{1}{4} = 1$  | 29. .275   |
| 4. A  | 30. 23   |
| $5 - 2 \times (\frac{1}{2} + 0.5) = 3$  | 31. $\frac{1}{20}$   |
| 5. A  | 32. $.4 \times 250 = 100$  |
| $6 \times 9 + (5 - 5) = 54$   | 33. $5 \div 20 = 0.25 = 25\%$  |
| 6. B  | 34. $\frac{255}{256}$  |
| $6 \times (5 + 5) - 9 = 51$   | 35. $\frac{1}{2}$  |
| 7. B  | 36. 11   |
| $\frac{3}{4} \times 10 - 0.5 = 7$   | 37. $\Delta = 2$   |
| 8. C  | 38. $1.\bar{1}$  |
| $1 \times 5 \div 5 \div 5 = 0.2$  | 39. $1.\bar{0}\bar{1}$   |
| 1. 1.2  | 40. $0.\overline{90}$  |
| 2. 12   | $0.1 = 0.0\bar{9} = 0.0\overline{99} = 11 \times 0.0\overline{09} = 11 \times 0.00\overline{90}$ |
| 3. .7   | $= 0.11 \times 0.\overline{90}$  |
| 4. .56  | 41. $0.\bar{1} + 0.\bar{2} + 0.\bar{7} = 1.\bar{1}$  |
| 5. .006   | 42. 0  |
| 6. 2.1  | 43. $100\pi$   |
| 7. 21   | 44. 5  |
| 8. 2.1  | 45. $4 \times 0.5 = \underline{2}$   |
| 9. 2100   | 46. 0.2  |
| 10. $\frac{1}{20}$  | 47. $5 \times 3 = 15$  |
| 11. 20  | 48. {1, 2, 4, 8}   |
| 12. $(0.25 \times 0.24)^2 \times 0.25 = 0.0036 \times \frac{1}{4} = 0.0009$                               | 49. {1, 3, 9, 27}  |
| 13. 2   | 50. 16   |
| 14. 4   | 51. A  |
| 15. 6   | $(100 \times 0.01) + 0.1 = 1.1$  |
| 16. 9   | 52. A  |
| 17. 2   | $100 \times (0.01 + 0.1) = 1.1$  |
| 18. 5   | 53. D  |
| 19. 8   | $(4 + 6) \times (8 - 5) = 20$  |
| 20. 3, 2  | 54. C  |
| 21. 0.00032   | $4 \times 5 + (6 - 8) = 18$  |
| 22. 0.03125   | 55. A  |
| 23. 3125  | $20 \div 10 \times 15 \div 5 = 6$  |
|   | 56. A  |
|   | $30 \div 15 \div 5 \div 10 = 6$  |

# GTs (CogAT Quantitative Reasoning) (Fall, 2019) Issue 3

57.  $\frac{60-30+20-15+12}{60} = \frac{47}{60}$  71. B
58.  $1\frac{2}{3}$  72. D
59. 25 73. C
60.  $\frac{2}{3}$  74. B
61.  $1\frac{1}{5}$  75. B
62. 25% 76. C
63. 20 77. A
64.  $72 \div 120 = .6 = 60\%$  78. A
65. 6.25 79. D
66. 0.0289 80. D
67. 3.24 81. D
68. 3.61 82. C
69.  $\frac{\frac{25}{12}}{\frac{625}{24 \times 7}} = \frac{14}{25}$  83. D
70.  $2 \times 5 = 10$  84. E
- 740□ 85. B
- 10 86. B
- = 739□ 87. C
- = 2 or 9 88. A
89. A

# Answer Key

- |       |       |
|-------|-------|
| 1. A  | 43. C |
| 2. C  | 44. A |
| 3. B  | 45. B |
| 4. A  | 46. B |
| 5. C  | 47. A |
| 6. D  | 48. D |
| 7. A  | 49. A |
| 8. B  | 50. D |
| 9. D  | 51. B |
| 10. B | 52. A |
| 11. A | 53. A |
| 12. A | 54. C |
| 13. A | 55. D |
| 14. C | 56. D |
| 15. B | 57. C |
| 16. D | 58. C |
| 17. A | 59. B |
| 18. A | 60. A |
| 19. B |       |
| 20. C |       |
| 21. A |       |
| 22. A |       |
| 23. D |       |
| 24. B |       |
| 25. C |       |
| 26. D |       |
| 27. C |       |
| 28. D |       |
| 29. D |       |
| 30. D |       |
| 31. D |       |
| 32. D |       |
| 33. D |       |
| 34. B |       |
| 35. A |       |
| 36. B |       |
| 37. B |       |
| 38. A |       |
| 39. B |       |
| 40. C |       |
| 41. A |       |
| 42. A |       |

# Answer Key

- |  |   |   |
|--|---|---|
| 1. C<br>6 Hint: $(x+1)/2$  | 32. $\square = 3, \Delta = 4$             | 61. 625   |
| 2. C<br>17 Hint: $(x - 10)/3$  | 33. $\square = 3, \Delta = 4$             | 62. 1209  |
| 3. D<br>23 Hint: $(63-x)/2$  | 34. $\square = 3, \Delta = 4$             | 63. 1216  |
| 4. B<br>21 Hint: $(x+1)/2$   | 35. 121                                   | 64. 1221  |
| 5. C<br>23 Hint: $(x + 2)/2$   | 36. 1331                                  | 65. 1224  |
| 1. .00004  | 37. 14641                                 | 66. 1225  |
| 2. .012  | 38. $x^2 + 2x + 1$                        | 67. 4209  |
| 3. 4216  | 39. $x^3 + 3x^2 + 3x + 1$                 | 68. 1871  |
| 4. 4221  | 40. $x^4 + 4x^3 + 6x^2 + 4x + 1$          | 69. 3000  |
| 5. 4224  | 41. $x^2 + 2xy + y^2$                     | 70. 4.8   |
| 6. 4225  | 42. $x^3 + 3x^2y + 3xy^2 + y^3$           | 71. 30  |
| 7. $42\frac{39}{256}$  | 43. $x^4 + 4x^3y + 6x^2y^2 + 4xy^3 + y^4$ | 72. $0.\overline{142857}$                             |
| 8. 421971  | 44. 1024                                  | 73. $0.\overline{285714}$                             |
| 9. $\square = 8$   | 45. $1024^2 = 1,048,576$                  | 74. $0.\overline{428571}$                             |
| 10. 0.35   | 46. 10201                                 | 75. $0.\overline{571428}$                             |
| 11. .0012  | 47. 1030301                               | 76. $0.\overline{714285}$                             |
| 12. .09  | 48. 104060401                             | 77. $0.\overline{857142}$                             |
| 13. True   | 49. $\frac{15}{100}$                      | 78. 285714  |
| 14. 3456   | $1 \leq 2^i \times 5^j \leq 100$          | 79. 428571  |
| 15. 146  | 7: 1, 2, 4, ..., 64 = $2^6$               | 80. 571428  |
| 16. 2.05   | 5: 5, 10, 20, ..., 80 = $5 \times 2^4$    | 81. 714285  |
| 17. 1.3625   | 3: 25, 50, 100                            | 82. 857142  |
| 18. 0.4601   | total # = 15                              | 83. 999999  |
| 19. 119.5  | 50. $\frac{29}{1000}$                     | 84. 111   |
| 20. 10135.25   | $1 \leq 2^i \times 5^j \leq 1000$         | 85. 1001  |
| 21. 2  | 10: 1, 2, 4, ..., 512 = $2^9$             | 86. 111111  |
| 22. .5   | 8: 5, 10, 20, ..., 640 = $5 \times 2^7$   | 87. 10101   |
| 23. 1024   | 6: 25, 50, 100, ..., 800 =                | 88. 142857  |
| 24. .000975625   | $25 \times 2^5$                           | 89. 999999  |
| 25. 43.6   | 4: 125, 250, ..., 1000 =                  | $= 9 \times 111111$                                   |
| 26. $70 \div 2 \div 3 \div 5 \div 7 \times 4 \times 6 \times 8 = 64$           | $125 \times 2^3$                          | $= 9 \times 11 \times 10101$                          |
| 27. $70 \div 2 \div 3 \div 4 \div 7 \times 5 \times 6 \times 8 \times 9 = 900$ | 1: 625 = $625 \times 2^0$                 | $= 9 \times 11 \times 7 \times 1443$                  |
| 28. 2.8  | total # = 29                              | $= 9 \times 11 \times 7 \times 13 \times 111$         |
| 29. 7  | 51. 12321                                 | $= 9 \times 11 \times 7 \times 13 \times 3 \times 37$ |
| 30. $243 - 125 = 118$  | 52. 1367631                               | $= 3^3 \times 7 \times 11 \times 13 \times 37$        |
| 31. 27.1   | 53. $1024 - 625 = 399$                    | 90. {1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84}.       |
|  | 54. 2.1                                   | 91. {1, 2, 4, 5, 10, 20, 25, 50, 100}                 |
|  | 55. $0.45 = \frac{9}{20}$                 | 92. A   |
|  | 56. $1.6 - 0.625 = 0.975$                 | 17 Hint: $(x+5)/2$                                    |
|  | 57. 609                                   | 93. B   |
|  | 58. 616                                   | 39 Hint: $(4x+1)/3$                                   |
|  | 59. 621                                   |   |
|  | 60. 624                                   |   |

## GT8 (CogAT Quantitative Reasoning) (Fall, 2019) Issue 4

94. D 12 Hint: $x/4$	107. B $\underline{5}$ (prime)	4 + 14 = 18 5 + 18 = 23
95. A 83 Hint: $6x - 31$	108. B 5 + 8 = <u>13</u>	4 + 23 = 27 5 + 27 = 32
96. D 23 Hint: $(x+31)/6$	109. A $6 \times 120 = \underline{720}$	117. A 118. B
97. C 9 Hint: $(x+1)/2$	110. D $33 - 11 = 22$ $30 - 10 = \underline{20}$	119. D 120. E
98. A 12 Hint: $(x+1)/2$	111. D <u>4289</u>	121. C 122. C
99. B 82 Hint: $3x - 11$	112. A $4 \times 5 = 20$ $3 \times 20 = 60$ $2 \times 60 = 120$	123. C 124. D 125. C
100. D 24 Hint: $x/4$	$1 \times 120 = \underline{120}$	126. D 127. B
101. A 56 Hint: $4x$	113. B $2 \times 1 = 2$ $2 \times 7 = 4$ $2 \times 32 = \underline{64}$	128. A 129. E 130. C
102. B 17 Hint: $(63-x)/2$	114. C $7 + 27 = \underline{34}$	131. B 132. A
103. D 44 Hint: $4x$	115. D 1101	133. B 134. D
104. C 12 Hint: $2x/3$	116. A $4 + 5 = 9$ $5 + 9 = 14$	135. A 136. D
105. C 13 Hint: $(x - 10)/3$		
106. A 41 Hint: $2x - 5$		

# Answer Key

- |   |  |   |
|---|--|---|
| 1. A<br>to detain means to hold or keep back; to release means to let go                  | 10. C<br>pivotal means very important, or crucial, therefore unimportant is the opposite                 | 17. A<br>to assure means to make sure by removing doubt or worry; alarm means to give warning or to arouse fear |
| 2. C<br>famous means widely known; obscure means little known                             | 11. D<br>cursed means to be the subject of misfortune, or to be unlucky, therefore lucky is the opposite | 18. B<br>fallacious means tending to deceive; truthful means disposed to tell the truth                         |
| 3. B<br>colossal means incredibly large, therefore tiny is the opposite                   | 12. D<br>candid means to be frank, or honest, therefore dishonest is the opposite                        | 19. B<br>gumption means initiative, or drive; apathy means a lack of interest or concern                        |
| 4. A<br>a fluid is a substance that flows; a solid does not flow                          | 13. C<br>to flaunt means to display showily, or to show off, therefore hide is the opposite              | 20. B<br>ecstasy means a state of rapturous delight; agony means intense pain of mind or body                   |
| 5. D<br>to continue means to act without interruption; to pause means to stop temporarily | 14. D<br>to heal means to restore to health; to maim means to injure                                     | 21. D<br>astute means shrewd or showing acute mental vision; gullible means easily duped or cheated             |
| 6. C<br>to labor means to work; to rest means to cease working                            | 15. A<br>to pacify means to soothe, or calm, therefore excite is the opposite                            | 22. A<br>winsome means cheerful and engaging; dour means gloomy or sullen                                       |
| 7. B<br>brawny means muscled or strong, therefore weak is the opposite                    | 16. B<br>sullen means showing a disagreeable mood, or lacking cheer, therefore cheerful is the opposite  | 23. C<br>droll means to have a humorous or odd quality; sedate means unruffled or serious                       |
| 8. A<br>fickle means to lack steadiness, therefore steady is the opposite                 |  |   |
| 9. C<br>inept means to lack competence, therefore competent is the opposite               |  |   |

24. D  
enigmatic means mysterious or obscure, therefore obvious is the opposite
25. B  
obtuse means insensitive or stupid; acute means marked by keen perception or shrewd
26. C  
obsequious means subservient or fawning; domineering means exercising overbearing control
27. D  
doleful means full of grief or cheerless; vivacious means full of life and spirit
28. A  
one meaning of wanton is malicious or merciless, therefore merciful is the opposite
29. C  
banal means trite or commonplace, therefore extraordinary is the opposite
30. B  
lugubrious means mournful, or dismal, therefore cheerful is the opposite
31. C  
perspicacious means keen or astute, therefore dull is the opposite
32. D  
elan means vigorous spirit or enthusiasm; despair means an utter loss of hope
33. A  
recondite means difficult for one of ordinary understanding to comprehend; manifest means easily understood or recognized
34. B  
to gainsay means to deny; one meaning of to own is to admit
35. C  
effluvium means an offensive smell; fragrance means a sweet or delicate odor
36. A  
parsimony means thrift or stinginess, therefore generosity is the opposite
37. B  
truculent means cruel or savage, therefore gentle is the opposite
38. D  
spurious means lacking genuine qualities, or false, therefore genuine is the opposite
39. A  
welter means a state of wild disorder, or turmoil, therefore order is the opposite
40. B  
eclat means a dazzling effect, or brilliance, therefore dullness is the opposite
41. C
42. C
43. B
44. D
45. B
46. D
47. C
48. D
49. B
50. C
51. A
52. D
53. D
54. D
55. B
56. A
57. D
58. B
59. A
60. A
61. D
62. B
63. B
64. A
65. C
66. D
67. D
68. B
69. B
70. D
71. B
72. D
73. D
74. D
75. D
76. A
77. C
78. B
79. B
80. C

# Answer Key

1. .1111

2. 2

3. 1

4. .12345

5. 126.5

6.  $\frac{7}{12}$

7. .0012

8.  $.125 + 0.1111\dots$   
 $= .236\bar{1}$

9. .1

10.  $196 + 2.8 + .01$   
 $= 198.81$

11. 0.1

12. 1.5

13.  $3.5 + 4.333\dots + 5.25 = 13.08\bar{3}$

14. 4

15. 20

16.  $12 + 2\sqrt{2}$

17. 5

18.  $180 \times (1 - \frac{2}{5}) = 108$

19. 10

20.  $\frac{3}{4}$

21. 0.5

22. 4, 12, 9

23. 16, -40, 25

24. 1, 4, 9, 4, 12, 6

25.  $\sqrt{10202-1} = 101$

$\sqrt{101-1} = 10$

$\sqrt{10-1} = 3$

$$\begin{array}{r} 3 \ . \ 1 \ 6 \ 2 \ 2 \ 7 \\ \hline 1 \ 0 \\ 9 \\ \hline 61 \quad 1 \ 0 \ 0 \\ \times 1 \quad 6 \ 1 \\ \hline 626 \quad 3 \ 9 \ 0 \ 0 \\ \times 6 \quad 3 \ 7 \ 5 \ 6 \\ \hline 6322 \quad 1 \ 4 \ 4 \ 0 \ 0 \\ \times 2 \quad 1 \ 2 \ 6 \ 4 \ 4 \\ \hline 63242 \quad 1 \ 7 \ 5 \ 6 \ 0 \ 0 \\ \times 2 \quad 1 \ 2 \ 6 \ 4 \ 8 \ 4 \\ \hline 632447 \quad 4 \ 9 \ 1 \ 1 \ 6 \ 0 \ 0 \\ \times 7 \quad 4 \ 4 \ 2 \ 7 \ 1 \ 2 \ 9 \end{array}$$

26. \_\_\_\_\_

$$\begin{array}{r} 4 \ . \ 1 \ 2 \ 3 \ 1 \ 0 \ 5 \\ \hline 1 \ 7 \\ \hline 1 \ 6 \\ \hline 81 \quad 1 \ 0 \ 0 \\ \times 1 \quad 8 \ 1 \\ \hline 822 \quad 1 \ 9 \ 0 \ 0 \\ \times 2 \quad 1 \ 6 \ 4 \ 4 \\ \hline 8243 \quad 2 \ 5 \ 6 \ 0 \ 0 \\ \times 3 \quad 2 \ 4 \ 7 \ 2 \ 9 \\ \hline 82461 \quad 8 \ 7 \ 1 \ 0 \ 0 \\ \times 1 \quad 8 \ 2 \ 4 \ 6 \ 1 \\ \hline 8246205 \quad 4 \ 6 \ 3 \ 9 \ 0 \ 0 \ 0 \ 0 \\ \times 5 \quad 4 \ 1 \ 2 \ 3 \ 1 \ 0 \ 2 \ 5 \end{array}$$

27. \_\_\_\_\_

28.  $\frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + 1}}}} = 0.625$

29.  $\frac{1}{1 + \frac{2}{1 + \frac{3}{1 + \frac{4}{1 + 1}}}} = 0.5$

30. 10, 35, 50, 24

31. 1, 4, 9, 4, 12, 6

32. 102.01

33.  $5 + 77 = 82$

34. 6

35. 0

36. 64

37.  $\frac{2}{5}$

38.  $\Delta = 25$

39.  $\frac{2}{3}$

40. 5

41. 13

42. 10

43. 39

44. 0.5

45.  $\frac{2}{3}$

46.  $\frac{2}{5}$

47.  $\frac{3}{8}$

48.  $\frac{4}{13}$

49.  $\frac{5}{13}$

50.  $\frac{5}{13}$

51.  $\frac{3}{5}$

52.  $\frac{4}{5}$

53.  $\frac{5}{4}$

54.  $\frac{4}{7}$

55.  $\frac{6}{5}$





## GTs (CogAT Quantitative Reasoning) (Fall, 2019) Issue 5

- |  |  |
|--|--|
| <p>56. 0.005</p> <p>57. 2.5</p> <p>58. 0.000027</p> <p>59. 78</p> <p>60. 0.15</p> <p>61. 200</p> <p>62. 7</p> <p>63. 25</p> <p>64. <math>\frac{3}{4}</math></p> <p>65. 12</p> <p>66. 206.9</p> <p>67. 9</p> <p>68. 14</p> <p>69. 20</p> <p>70. 27</p> <p>71. 35</p> <p>72. <math>180 \times (1 - \frac{2}{6}) = 120</math></p> <p>73. <math>180 \times (1 - \frac{2}{7}) = 128\frac{4}{7}</math></p> <p>74. <math>180 \times (1 - \frac{2}{8}) = 135</math></p> <p>75. <math>180 \times (1 - \frac{2}{9}) = 140</math></p> <p>76. <math>180 \times (1 - \frac{2}{10}) = 144</math></p> <p>77. 6</p> <p>78. 15</p> <p>79. 45</p> <p>80. 4</p> <p>81. 5, 2<br/><math>400 + (43 \times 3) = 529</math></p> <p>82. 5, 7<br/><math>400 + 44 \times 4 = 576</math></p> <p>83. 6, 2<br/><math>400 + 45 \times 5 = 625</math></p> <p>84. 6, 7<br/><math>400 + 46 \times 6 = 676</math></p> <p>85. 7, 2<br/><math>400 + 47 \times 7 = 729</math><br/><math>30 \times 24 + 9 = 729</math></p> <p>86. 7, 8<br/><math>400 + 48 \times 8 = 784</math><br/><math>30 \times 26 + 4 = 784</math></p> <p>87. 7, 8<br/><math>30 \times 28 + 1 = 841</math></p> <p>88. <math>1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + 1}}} = 1.6</math></p> <p>89. <math>1 - \frac{1}{1 - \frac{1}{1 - \frac{1}{1 - \frac{1}{1 - 2}}}} = 0.5</math></p> <p>90. <math>2^{16} = 64 \times 1024 = 65536</math></p> | <p>91. A<br/>23 Hint: <math>(3x - 1)/4</math></p> <p>92. D<br/>20 Hint: <math>(3x - 1)/4</math></p> <p>93. C<br/>38 Hint: <math>(3x - 1)/4</math></p> <p>94. D<br/>12 Hint: <math>(x+11)/3</math></p> <p>95. A<br/>9 Hint: <math>x/3 - 4</math></p> <p>96. B<br/>47 Hint: <math>6x - 31</math></p> <p>97. D<br/>42 Hint: <math>3(x+4)</math></p> <p>98. D<br/>19 Hint: <math>(x - 10)/3</math></p> <p>99. B<br/>11 Hint: <math>2x - 1</math></p> <p>100. A<br/>36 Hint: <math>2x - 2</math></p> <p>101. C<br/>31 Hint: <math>(2x+1)/3</math></p> <p>102. C<br/>19 Hint: <math>(x+31)/6</math></p> <p>103. A<br/>13 Hint: <math>4x - 3</math></p> <p>104. B<br/>52 Hint: <math>(3x-1)/2</math></p> <p>105. A<br/>84 Hint: <math>4x - 4</math></p> <p>106. B<br/>26 Hint: <math>x - 7</math></p> <p>107. B<br/>40 Hint: <math>3x + 10</math></p> <p>108. C<br/>5 Hint: <math>x - 7</math></p> <p>109. A<br/>60 Hint: <math>4x - 4</math></p> <p>110. B<br/>10 Hint: <math>2x/3</math></p> <p>111. B<br/><math>\underline{5}</math> (prime)</p> <p>112. B<br/><math>5 + 8 = \underline{13}</math></p> <p>113. A<br/><math>6 \times 120 = \underline{720}</math></p> <p>114. D<br/><math>33 - 11 = 22</math><br/><math>30 - 10 = \underline{20}</math></p> <p>115. D<br/><u>4289</u></p> |
|--|--|

GT8 (CogAT Quantitative Reasoning) (Fall, 2019) Issue 5

- |                                  |        |
|----------------------------------|--------|
| 116. A                           | 127. E |
| $4 \times 5 = 20$                | 128. B |
| $3 \times 20 = 60$               | 129. C |
| $2 \times 60 = 120$              | 130. C |
| $1 \times 120 = \underline{120}$ | 131. D |
| 117. B                           | 132. C |
| $2 \times 1 = 2$                 | 133. E |
| $2 \times 7 = 4$                 | 134. D |
| $2 \times 32 = \underline{64}$   | 135. C |
| 118. C                           | 136. B |
| $7 + 27 = \underline{34}$        | 137. A |
| 119. D                           | 138. E |
| 1101                             | 139. E |
| 120. A                           | 140. C |
| $4 + 5 = 9$                      | 141. B |
| $5 + 9 = 14$                     | 142. D |
| $4 + 14 = 18$                    | 143. A |
| $5 + 18 = 23$                    | 144. A |
| $4 + 23 = 27$                    | 145. D |
| $5 + 27 = 32$                    | 146. B |
| 121. A                           | 147. B |
| 122. D                           | 148. D |
| 123. E                           | 149. E |
| 124. C                           |        |
| 125. A                           |        |
| 126. D                           |        |

# Answer Key

- |  |  |  |
|--|--|--|
| 1. C<br>deplete means to reduce or deprive or something essential; exhaust means to empty completely | 11. A<br>to impel means to drive forward using strong moral pressure, or to force                      | 20. A<br>to warrant means to serve as adequate ground or reason, or to justify                       |
| 2. A<br>voluntary means done by one's own will, or willing   | 12. C<br>a throng is a large number of assembled people, or a mass                                     | 21. C<br>to protract means to prolong in time or space, or to delay                                  |
| 3. B<br>to refute means to prove wrong, or to deny the truth of                                      | 13. C<br>imperial means befitting or suggesting an emperor; regal means befitting or suggesting a king | 22. B<br>lax means in a relaxed state, or slack  |
| 4. D<br>to cheat means to influence by means of trickery, or to defraud                              | 14. B<br>to diffuse means to break up or spread out, or to scatter                                     | 23. A<br>rigor means severity of life, or austerity  |
| 5. C<br>miserable means in a state of distress or unhappiness  | 15. D<br>to hinder means to hold back; one meaning of to check means to slow or bring to a stop        | 24. D<br>discrete means individually distinct  |
| 6. A<br>vintage means of old and enduring interest, or classic                                       | 16. A<br>latent means capable of becoming but not currently visible, or dormant                        | 25. C<br>lissome means supple or flexible  |
| 7. B<br>tart means pleasantly sharp or acid to the taste   | 17. C<br>wretched means extremely distressed, or miserable   | 26. A<br>to misprize means to hold in contempt, or to despise  |
| 8. B<br>to corner means to drive into a corner, or to trap   | 18. D<br>irksome means tedious or annoying   | 27. C<br>to impugn means to attack verbally as false or lacking integrity; to assail means to attack |
| 9. A<br>one meaning of zest is keen enjoyment, or gusto  | 19. B<br>to regulate means to bring under the control of law; to police means to control or keep order | 28. D<br>to supervene means to follow as an unexpected development                                   |
| 10. D<br>to haggle means to negotiate over terms or price, or to bargain                             |  | 29. A<br>exigent means demanding immediate attention, or urgent                                      |
|  |  | 30. D<br>fervid means ardent or passionate   |

- |                          |                        |
|--------------------------|------------------------|
| 31. B                    | 60. B                  |
| ersatz means a usually   | 61. B                  |
| artificial or inferior   | 62. B                  |
| substitute               | 63. A                  |
| 32. B                    | 64. D                  |
| redolent means           | 65. B                  |
| aromatic or full of a    | 66. B                  |
| specific scent, or       | 67. D                  |
| odorous                  | 68. B                  |
| 33. D                    | 69. C                  |
| turpitude means          | 70. A                  |
| wickedness, or depravity | 71. C                  |
| 34. B                    | 72. D                  |
| propinquity means        | 73. C                  |
| nearness in place or     | 74. B                  |
| time                     | 75. B                  |
| 35. C                    | 76. syn key: D E B C A |
| vociferous means loud    | ant key: E A B C D     |
| and insistent, often in  | 77. syn key: B E C A D |
| presentation of          | ant key: D A B C E     |
| demands or requests;     | 78. syn key: A E B D C |
| strident also means loud | ant key: A E B D C     |
| and insistent            | 79. syn key: C E B D A |
| 36. B                    | ant key: C E D B A     |
| 37. B                    | 80. B                  |
| 38. C                    | 81. A                  |
| 39. C                    | 82. D                  |
| 40. D                    | 83. C                  |
| 41. A                    | 84. D                  |
| 42. C                    | 85. D                  |
| 43. C                    | 86. A                  |
| 44. B                    | 87. A                  |
| 45. D                    | 88. D                  |
| 46. C                    | 89. D                  |
| 47. D                    | 90. A                  |
| 48. A                    | 91. B                  |
| 49. B                    | 92. C                  |
| 50. B                    | 93. B                  |
| 51. C                    | 94. B                  |
| 52. A                    | 95. C                  |
| 53. B                    | 96. D                  |
| 54. D                    | 97. D                  |
| 55. B                    | 98. D                  |
| 56. B                    | 99. B                  |
| 57. C                    |                        |
| 58. C                    |                        |
| 59. B                    |                        |

# Answer Key

1. 2
2.  $9^6 = 3^{12}$
3. .1234
4. .54321
5. .54321
6.  $\frac{3}{19}$
7. -.0012
8. 
$$\begin{array}{r} 1.111,111 \\ +1.010,101 \\ +1.001,001 \\ \hline =3.122,213 \end{array}$$
9.  $0.\overline{037} + 0.25$   
 $= 0.28\overline{703}$
10. 1,111,111,101
11. 8,888,888,889
12. 111,111,111
13.  $0.\overline{012345679}$
14. 60
15. 9
16. 4
17.  $\frac{2}{3}$
18. -2
19. 9
20. 8
21. 0.1
22. 20
23. 25
24. 80
25. 0.3
26. 3
27. -1
28. 20
29. -3
30. -10
31. 0.2
32.  $\frac{4}{9}$
33.  $\frac{6}{11}$
34. 4
35. 5
36.  $\frac{2}{3}$
37.  $\frac{5}{4}$
38.  $\frac{5}{2}$
39.  $-\frac{1}{6}$
40. 55
41. 5050
42.  $60 \times 103 = 6180$
43. 110
44.  $51 \times 25 = 1275$
45.  $50 \times 81 = 4050$
46.  $50 \times 21 = 1050$
47.  $101 \times 67 = 6767$
48.  $21.5 \times 20 = 430$
49.  $1515 \div 15 = 101$   
 $101 + 2 \times 7 = 115$
50.  $\frac{19-5}{10-3} = 2$   
 $2 \times (20 - 10) + 19 = 39$
51. C
52. A
53. D  
Unknown time
54. C
55. A  
 $60 \times 60 > 60 \times 24$
56. B
57. A
58. C
59. C
60. B  
 $\frac{1001}{1002} = 1 - \frac{1}{1002}$   
 $\frac{1000}{1001} = 1 - \frac{1}{1001}$
61. C
62. A
63. D
64. B
65. C
66. D
67. C
68. A  
 $3\frac{1}{2}$  dozen =  $3 \times 12 + 6 = 42 > 40$
69. C
70. C
71. B  
 $\sqrt{(16 + 9)} = 5$

## GT8 (CogAT Quantitative Reasoning) (Fall, 2019) Issue 6

- |   |  |
|---|--|
| <p>72. C<br/><math>\sqrt{9 + 16 + 12^2} = 13</math></p> <p>73. B<br/><math>(4 \times 4 - 12) \div 4 = 1</math></p> <p>74. C<br/><math>(12 - 4) \div 4 \div 4 = 1</math></p> <p>75. C<br/><math>(2 + 4) \div 3 \times 1 = 2</math></p> <p>76. C<br/><math>6 + 8 \div (1 + 1 + 2) = 8</math></p> <p>77. D<br/><math>3 \times 9 - 15 = 12</math></p> <p>78. C<br/><math>5 \times (9 - 3) + 7 = 37</math></p> <p>79. C<br/><math>15 + 10 - (5 - 2) = 22</math></p> <p>80. E<br/><math>15 + 10 - (5 + 2) = 18</math></p> <p>81. A<br/><math>15 + 5 - (10 + 2) = 8</math></p> <p>82. D<br/><math>4 \times 6 - 5 = 19</math></p> <p>83. D</p> <p>84. A</p> <p>85. E</p> <p>86. C</p> <p>87. C</p> <p>88. D</p> <p>89. A</p> <p>90. D</p> <p>91. B</p> <p>92. C</p> <p>93. D</p> <p>94. E</p> <p>95. B or C</p> <p>96. B</p> <p>97. A</p> <p>98. C</p> <p>99. D</p> <p>100. D<br/>Difference in the dash lines</p> <p>101. A<br/>65 Hint: <math>6x - 31</math></p> <p>102. A<br/>15 Hint: <math>3x/2</math></p> <p>103. C<br/>40 Hint: <math>3x - 11</math></p> | <p>104. D<br/>15 Hint: <math>(2x+1)/3</math></p> <p>105. B<br/>32 Hint: <math>4x</math></p> <p>106. D<br/>10 Hint: <math>(x+4)/4</math></p> <p>107. D<br/>18 Hint: <math>(x+4)/4</math></p> <p>108. C<br/>3 Hint: <math>(x-1)/2</math></p> <p>109. C<br/>9 Hint: <math>(63-x)/2</math></p> <p>110. C<br/>56 Hint: <math>4x-4</math></p> <p>111. A<br/>71 Hint: <math>3x+2</math></p> <p>112. B<br/>5 Hint: <math>2x-1</math></p> <p>113. B<br/>36 Hint: <math>3x/2</math></p> <p>114. B<br/>76 Hint: <math>3x-11</math></p> <p>115. C<br/>51 Hint: <math>(4x+1)/3</math></p> <p>116. D<br/>31 Hint: <math>(x+11)/3</math></p> <p>117. D<br/>37 Hint: <math>2x-1</math></p> <p>118. B</p> <p>119. A</p> <p>120. A</p> <p>121. A</p> <p>122. D</p> <p>123. B</p> <p>124. E</p> <p>125. A</p> <p>126. E</p> <p>127. A</p> <p>128. A</p> <p>129. B</p> <p>130. C</p> <p>131. E</p> <p>132. B</p> <p>133. B</p> <p>134. A</p> <p>135. D</p> <p>136. A</p> |
|---|--|

# Answer Key

1. B  
gracious means to be pleasant in a social situation, or cordial; rude means to be unpleasant
2. A  
valor means strength of mind or spirit, or courage; cowardice means lack of courage
3. A  
one meaning of severe is strict; lenient means mild or indulgent
4. D  
imaginative means having imagination; dull means lacking imagination
5. B  
knowing means having information or knowledge; dense means dull or stupid
6. A  
animosity means resentment or hostility, therefore love is the opposite
7. C  
exact means in complete accord with fact, or correct, therefore incorrect is the opposite
8. D  
extravagant means lacking in restraint and moderation, therefore moderate is the opposite
9. A  
stamina means strength or endurance, therefore weakness is the opposite
10. B  
rough means having an uneven, coarse surface; sleek means having a smooth, bright surface
11. C  
to garner means to gather or to store; to squander means to cause to disperse or to scatter
12. A  
prodigal means wasteful or extravagant; thrifty means thriving by industry and frugality
13. B  
tacit means unspoken, or implied; dictated means spoken
14. D  
to repudiate means to reject or deny, therefore to admit is the opposite
15. B  
pristine means unspoiled or pure; sullied means spoiled or tarnished
16. B  
to concede means to yield; to withstand means to successfully resist
17. D  
to placate means to soothe or calm; to enrage means to anger
18. B  
popular means frequently encountered or accepted, or common, therefore uncommon is the opposite
19. C  
felicitous means very well-suited or apt; inopportune means inconvenient or not well-suited
20. A  
austere means simple and unadorned; lavish means produced or expended in abundance
21. C  
insipid means lacking in qualities that interest or excite, therefore exciting is the opposite
22. D  
a wastrel is someone who spends foolishly or self-indulgently; a miser is someone who hoards his or her wealth
23. B  
temperate means moderate; inordinate means excessive or immoderate
24. C  
nebulous means vague or indistinct, therefore distinct is the opposite
25. A  
adroit means skillful in

- the use of the hands,  
therefore clumsy is the  
opposite
26. C  
mite means a very small  
or insignificant part;  
bulk means the main or  
greater part
27. D  
supernal means coming  
from on high, or  
heavenly; infernal is a  
synonym for hellish
28. B  
reprobate means  
morally debased or  
depraved; one meaning  
of elevated is to be on a  
moral or intellectual  
high plane
29. A  
specious means having a  
false look of truth or  
genuineness, therefore  
genuine is the opposite
30. B  
effete means weak or  
decadent; one meaning  
of proper is virtuous or  
respectable
31. D  
a rabble is a disorderly  
or disorganized crowd  
of people; a union is a  
group of individuals  
joined in an organized  
manner
32. B  
protean means showing  
great diversity or  
variability, or versatile,  
therefore unchanging is  
the opposite
33. C  
vertiginous means  
inclined to frequent  
change, or inconstant,
- therefore constant is the  
opposite
34. A  
a parvenu is an upstart  
or a social climber; a  
wallflower is someone  
who refrains from  
socializing
35. D  
lapidarian means having  
elegance or precision  
and comes from the  
word lapidary, which  
means a cutter or  
engraver of precious  
stones, therefore  
inelegant is the opposite
36. B  
37. C  
38. D  
39. A  
40. A  
41. B  
42. A  
43. A  
44. D  
45. D  
46. B  
47. C  
48. B  
49. B  
50. D  
51. C  
52. B  
53. C  
54. B  
55. B  
56. A  
57. A  
58. D  
59. D  
60. A  
61. B  
62. B  
63. D  
64. A  
65. A
66. D  
67. D  
68. D  
69. C  
70. C  
71. B  
72. A  
73. B  
74. B  
75. A  
76. syn key: C E A D B  
ant key: E D A C B  
77. syn key: C B A E D  
ant key: D E B C A  
78. syn key: A D E B C  
ant key: A E C D B  
79. syn key: D A E C B  
ant key: E A B D C  
80. B  
81. A  
82. B  
83. D  
84. A  
85. D  
86. D  
87. B  
88. B  
89. D  
90. D  
91. B  
92. B  
93. A  
94. A  
95. A  
96. C  
97. A  
98. D  
99. C



# Answer Key

1.  $7\sqrt{5}$
2.  $9\sqrt{2}$
3.  $2\sqrt{2}$
4.  $7(2\sqrt{2}) - 5\sqrt{2} = (14 - 5)\sqrt{2} = 9\sqrt{2}$
5.  $25\sqrt{2}$
6. False
7. 4
8. 8
9. 3
10. -2
11.  $\frac{1}{2}$
12.  $\frac{1}{9}$
13. -3
14.  $-\frac{1}{3}$
15.  $\frac{1}{9}$
16.  $4+4+6-8 = 6$
17.  $27 + 3 - 9 = 21$
18.  $4\sqrt{3}$
19.  $2\sqrt{5}$
20.  $5\sqrt{5}$
21.  $3\sqrt{5}$
22.  $6\sqrt{5}$
23.  $4\sqrt{3}$
24.  $5\sqrt{3}$
25.  $22\sqrt{3}$
26.  $15\sqrt{3}$
27.  $11\sqrt{5}$
28.  $5y\sqrt{3y}$
29.  $x^9 = (x^3)^3 = 10^3 = 1000$
30.  $b^8 = (7^{25})^8 = 7^2 = 49$
31. 24
32. 1024000
33.  $(ab)^6 = a^6b^6 = (a^2)^3(b^3)^2 = 3^32^2 = 27 \times 4 = 108$
34.  $(ab)^6 = a^6b^6 = (a^2)^{30}(b^3)^{20} = 3^{30}2^{20}$
35.  $2^{3 \cdot 21} = 2^3 \times 2^{21} = 8a$
36.  $5^{3 \cdot 21} = 5^3 \times 2^{21} = 125a$
37.  $3^{-79} = 3^{21-1} = 3^{21}/3 = a/3$
38.  $6^{ab} = (2 \times 3)^{ab} = 2^{ab} \times 3^{ab} = (2^a)^b \times (3^b)^a = 3^b 2^a = 2 \times 3 = 6$
39.  $2^{32} = 2^2 + 30 = (2^2) \times (2^{10})^3 = 4K^3$
40.  $314 = 10^{2.497}$
41.  $0.0314 = 3.14/100 = 10^{-497}/10^2 = 10^{-1.503}$
42.  $\frac{1}{3140^5} = 3140^{-5} = (10^{3.497})^{-5} = 10^{-17.485}$
43.  $3140^{\frac{1}{3}} = (10^{3.497})^{\frac{1}{3}} = 10^{1.166}$
44.  $4.56 \times 10^{26} = 10^{-659} \times 10^{26} = 10^{26.659}$
45.  $4.56 \times 10^{-31} = 10^{-659} \times 10^{-31} = 10^{-30.404}$
46.  $45.6 \times 10^{-20} = 10^{1.659} \times 10^{-20} = 10^{-18.341}$
47.  $= 2(1+2+\dots+10) = \underline{110}$
48.  $= 4(1^2+2^2+\dots+10^2)$   
 $= 4\frac{10 \times 11 \times 21}{6} = 2 \times 10 \times 77 = \underline{1540}$
49.  $= 8(1^3+2^3+\dots+10^3)$   
 $= 8 \times 55^2$   
 $= 8 \times 3025$   
 $= \underline{24200}$
50. a) A = 1, B = 8, C = 27, D = 64  
b)  $1 + 8 + 27 + 64 = 100$   
c)  $(1 + 2 + 3 + 4)^2 = 10^2 = 100$   
d)  $1^3 + 2^3 + 3^3 + 4^3 = (1+2+3+4)^2$
51.  $6.1 \times 41 = 250.1$
52. 5, 9, 13, 17,  $d = 1$
53. 2, 5, 8, 11,  $d = 3$
54.  $2\frac{1}{3}, 5\frac{1}{3}, 8\frac{1}{3}, 11\frac{1}{3}, d = 3$
55. -1, -4, -7, -10,  $d = -3$
56.  $2 + 2(11) = 24$
57.  $-1 + 4(17) = 67$
58.  $a + 2b + 3b(13) = a + 41b$
59.  $a + (n-1)d$   
 $= 3 + (7-1)(-6)$   
 $= -33$
60.  $30 + (8)(2) = 46$
61.  $d = \frac{13-21}{21-17} = -2$
62.  $10 + (16-31)(-\frac{2}{3})$   
 $= 10 + 10$   
 $= 20$
63. C
64. A
65. A
66. A
67. D
68. A
69. E
70. E

## GT8 (CogAT Quantitative Reasoning) (Fall, 2019) Issue 7

- |       |       |
|-------|-------|
| 71. C | 85. B |
| 72. A | 86. E |
| 73. A | 87. B |
| 74. E | 88. E |
| 75. C | 89. C |
| 76. C | 90. D |
| 77. C | 91. B |
| 78. C | 92. E |
| 79. C | 93. D |
| 80. C | 94. A |
| 81. A | 95. B |
| 82. B | 96. E |
| 83. B | 97. A |
| 84. C | 98. B |

# Answer Key

- |   |   |  |
|---|---|--|
| 1. A<br>delirious means marked by frenzied excitement, or manic   | 12. D<br>resilient means capable of withstanding shock; flimsy means lacking in physical strength or substance              | hesitate among choices, or to waver; decide means to choose  |
| 2. B<br>infirm means feeble from age, or weak   | 13. A<br>mutiny means resistance to lawful authority, or rebellion  | 21. B<br>kinetic means relating to motion, or dynamic; static means at rest, or stationary               |
| 3. D<br>cautious means careful; reckless means lacking caution  | 14. C<br>naive means unaffectedly simple, or unsophisticated  | 22. C<br>to lambaste means to attack verbally, or to censure   |
| 4. B<br>a lure is used to attract animals into a trap, like a decoy   | 15. B<br>to entice means attract seductively, or to lure; to repulse means to cause aversion to, or to disgust              | 23. A<br>to kowtow means to show fawning deference; to snub means to treat with contempt                 |
| 5. C<br>perilous means dangerous, therefore safe is the opposite  | 16. B<br>solemnity means formal or ceremonious observance, or seriousness; gravity means dignity of bearing, or seriousness | 24. D<br>rudimentary means crude or primitive  |
| 6. C<br>isolation means the state of being alone or withdrawn, or solitude  | 17. D<br>one meaning of liberal is giving freely, or generous; stingy means lacking generosity                              | 25. C<br>pitched means intensely fought; one meaning of heated is marked by anger                        |
| 7. A<br>a lull is a temporary pause   | 18. C<br>to malign means to speak false or harmful things of, or to slander   | 26. B<br>tepid means lukewarm; scalding means boiling hot  |
| 8. D<br>to outfit means to supply or to furnish   | 19. D<br>impudent means contemptuously bold or cocky, or insolent   | 27. B<br>largesse means liberal giving or generosity   |
| 9. B<br>punctual means on time; tardy means late  | 20. A<br>vacillate means to   | 28. A<br>insidious means harmful but enticing or seductive; repellant means arousing aversion or disgust |
| 10. C<br>to delude means to mislead the judgment of someone, or to trick; to enlighten means to give knowledge to someone |   | 29. A<br>decorum means   |
| 11. B<br>to omit means to leave out, to fail to perform, or to neglect  |   |  |

- conduct required in social life, or etiquette
30. C  
to succor means go to the aid of, or relieve; to injure means to harm
31. C  
enjoin means to forbid or prohibit, therefore permit is the opposite
32. A  
tumid means puffy or swollen
33. B  
jejune means lacking in substance or interest; insipid means lacking in qualities to excite or interest
34. D  
ecumenical means of or relating to the whole body of churches, or universal; parochial means of or relating to a parish, or limited in scope or range
35. A  
a sinecure is a job for which little or no work is expected; a cakewalk is a one-sided competition
36. B  
to castigate means to subject to severe punishment
37. D  
reconnoiter means to gain information or to explore; disregard means to pay no attention to
38. A  
obloquy means abusive language; tirade means harshly censorious language
39. C  
recondite means hidden from sight or obscure; patent means readily visible or intelligible
40. B  
querulous means habitually complaining, or fretful
41. A
42. D
43. D
44. B
45. C
46. D
47. B
48. B
49. C
50. C
51. B
52. D
53. B
54. B
55. C
56. D
57. A
58. B
59. A
60. C
61. B
62. C
63. D
64. D
65. D
66. D
67. C
68. D
69. A  
Some related words with mnemonic joy.  
amalgam: an alloy of mercury with another metal or metals.  
magma: molten mixture from volcanic eruption
70. B
71. A
72. C  
prowess: exceptional power, valor, and bravery.
73. A
74. C
75. A
76. C  
reparation: fee for repairing some damages.
77. D  
“rather” necessitates two words in opposite meaning.  
obsequious: showing servile complaisance or deference.
78. B
79. C
80. A
81. syn key: E A B D C  
ant key: A D B E C
82. syn key: A C B D E  
ant key: C E A D B
83. syn key: C D B A E  
ant key: E D B A C
84. syn key: D A B E C  
ant key: D C E A B
85. A
86. D
87. D
88. C
89. D
90. B
91. B
92. C
93. D
94. A
95. D
96. D
97. A
98. A
99. A
100. B

- 101. D
- 102. D
- 103. D
- 104. C

# Answer Key

1. A  
23 Hint:  $(3x - 1)/4$
2. D  
20 Hint:  $(3x - 1)/4$
3. C  
38 Hint:  $(3x - 1)/4$
4. D  
12 Hint:  $(x+11)/3$
5. A  
9 Hint:  $x/3 - 4$
6. 11
7. 4  
largest 2-power
8. 5  
largest odd factor
9.  $2 \times 3 = 6$ ,  $6 \times 3 = 18$   
 $4 \times 3 = 12$ ,  $12 \times 3 = 36$   
 $6 \times 3 = \underline{18}$ ,  $18 \times 3 = \underline{54}$
10. 571428
11. 216
12. 84  
1, 4, 10, 20, 35, 56, \_\_\_\_\_  
3, 6, 10, 15, 21  
3, 4, 5, 6, 7
13. 5625
14.  $5 \times 6 = \underline{30}$
15. 8  
 $12 \times 6 = 72$ ,  $13 \times 7 = 91$
16.  $7 + 28 = \underline{35}$
17.  $160 - 10 = 150$   
 $150 - 9 = 141$   
 $141 - 8 = 133$   
 $133 - 7 = \underline{126}$
18.  $2 \times 2\frac{1}{4} = \underline{4\frac{1}{2}}$
19.  $1 + 4 = 5$   
 $5 + 7 = 12$   
 $12 + 10 = 22$   
 $22 + 13 = 35$   
 $35 + 16 = 51$   
 $51 + 19 = \underline{70}$
20.  $1 + 4 = 5$   
 $5 + 7 = 12$   
 $12 + 10 = 22$   
 $22 + 13 = 35$   
 $35 + 16 = 51$   
 $51 + 19 = \underline{70}$
21. 18, 20, **19**, 20, 10, **15**, 30, 10, \_\_\_\_\_  
 $\frac{1}{2}(18 + 20) = 19$   
 $\frac{1}{2}(20 + 10) = 15$   
 $\frac{1}{2}(30 + 10) = \underline{20}$
22.  $4 \times 256 = \underline{1024}$
23.  $5^2 = \underline{25}$
24. 4  
-1, -2, +3, -4, -5, +6, -7  
 $11 - 7 = 4$
25. 16, 32  
 $2 \times 4 = 8$   
 $2 \times 8 = 16$   
 $2 \times 12 = 24$   
 $2 \times \underline{16} = \underline{32}$
26. 0.00008192
27.  $2^2 = \underline{4}$
28.  $0.14 + 0.36 = \underline{0.5}$
29. 14641
30. 0.00032
31. 2430000
32. 0.42  
 $0.1 \times 0.2 = 0.02$   
 $0.2 \times 0.3 = 0.06$   
 $0.3 \times 0.4 = 0.12$   
 $0.4 \times 0.5 = 0.2$   
...  
 $0.6 \times 0.7 = 0.42$
33. 9  
 $7^1 = 7$   
 $7^2 = 7 \times 7 = 49$   
 $7^3 = 7 \times 49 = 243$   
 $7^4 = 7 \times 243 = 1701$   
 $7^5 = 7 \times 1701 = 11907$   
 $7^9 = 40353607$
34. 9 digits  
 $2.3765 \times 8.671 \times 10^7$   
 $= 1.6 \times 10^8$
35.  $16 \times 243 = 3888$
36. 37  
 $22 + 7 = 29$   
 $29 + 8 = 37$
37.  $21 + 34 = \underline{55}$  (Fibonacci)
38. 21

## GT8 (CogAT Quantitative Reasoning) (Fall, 2019) Issue 8

39.  $1 \times 11 = 11$   
 $12 \times 11 = 132$   
 $123 \times 11 = 1353$   
 $1234 \times 11 = 13574$   
 $12345 \times 11 = \underline{135795}$
40.  $18 + 9 = 27$   
 $27 + 11 = \underline{38}$
41.  $2 \times 48 = \underline{96}$
42.  $22 + 23 = \underline{45}$
43. ...  
 $27 + 11 = 38$   
 $38 + 13 = \underline{51}$
44. ...  
 $23 + 11 = 34$   
 $34 + 13 = \underline{47}$
45. ...  
 $50 + 22 = 72$   
 $72 + 26 = \underline{98}$
46.  $\frac{11}{21}$
47.  $3, 5, 7, \dots, 19$   
 $3 + 3 + 5 + \dots + 19$   
 $= 2 + 1 + 3 + \dots + 19$   
 $= 2 + 10 \times 10$   
 $= 102$
48.  $8 + 4 + 6 + 8 + \dots + 20$   
 $= 6 + 2 + 4 + \dots + 20$   
 $= 6 + 11 \times 10$   
 $= 116$
49.  $15 + 21 + 31 + 41 + \dots + 101$   
 $= 4 + 11 + 21 + \dots + 101$   
 $= 4 + 10 \times 56$   
 $= \underline{564}$
50.  $0 + 6 + 18 + 36 + 60$   
 $= 6(0 + 1 + 3 + 6 + 10 + 15 + 21 + 28 + 38 + 45)$   
 $= 6(20 + 60 + 87)$   
 $= 6 \times 167$   
 $= \underline{1002}$
51. ...  
 $100 + 44 = 144$   
 $144 + 52 = \underline{196}$
52. Fibonacci pattern  
 $1 + 1 = 2$   
 $1 + 2 = 3$   
...  
 $13 + 21 = \underline{34}$
53. Fibonacci pattern  
 $4 + 4 = 8, 8 - 3 = 5$   
 $4 + 5 = 9, 9 - 3 = 6$   
...  
 $16 + 24 = 40, 40 - 3 = \underline{37}$
54. Fibonacci pattern  
 $-1 - 1 = -2, -2 + 2 = 0$   
 $11 + 19 + 2 = \underline{32}$
55.  $1 + 1 = 2$   
 $2 + 3 = 5$   
 $5 + 9 = 14$   
 $14 + 27 = 41$   
 $41 + 81 = \underline{122}$
56. ...  
 $23 + 11 = 34$   
 $34 + 13 = \underline{47}$
57. ...  
 $31 + 15 = 46$   
 $46 + 18 = 64$   
 $64 + 21 = \underline{84}$
58.  $1 + 1^2 = 2$   
 $1 + 2^2 = 5$   
...  
 $1 + 20^2 = 401$
59. 40
60. 50
61. 101
62. 25
63. 41
64. 11
65. 14
66. 59
67. -1
68. 32
69. 52
70. -42
71.  $-5 - 18 = -23$
72.  $-5 - 18 = 23$
73.  $-2 + 2 + 4 + \dots + 18$   
 $= 8 \times 11$   
 $= \underline{88}$
74.  $4 + 9 \times 5 = \underline{49}$
75.  $3 + 9 \times 2 = \underline{+21}$
76.  $12 + 33 + 53 + 73 + 93 + \dots + 213$   
 $= 12 + 9 \times 123$   
 $= 12 + 1107$   
 $= 1119$
77.  $100 - 10 = \underline{90}$
78.  $6 = 2 \times 3$   
 $72 = 8 \times 9$   
 $462 = 21 \times \underline{22}$
79. 385  
 $\frac{1}{3}n(n+1)(n+2) - \frac{1}{2}n(n+1)$   
 $= n(n+1)\left(\frac{n+2}{3} - \frac{1}{2}\right)$   
 $= \frac{1}{6}n(n+1)(2n+1)$

## GT8 (CogAT Quantitative Reasoning) (Fall, 2019) Issue 8

80.  $= (1 + 2 + 3 + \dots + 10)^2$   
 $= 55^2$   
 $= \underline{3025}$
81. B  
 47 Hint:  $6x - 31$
82. D  
 42 Hint:  $3(x+4)$
83. D  
 19 Hint:  $(x - 10)/3$
84. B  
 11 Hint:  $2x - 1$
85. A  
 36 Hint:  $2x - 2$
86. C  
 31 Hint:  $(2x+1)/3$
87. C  
 19 Hint:  $(x+31)/6$
88. A  
 13 Hint:  $4x - 3$
89. B  
 52 Hint:  $(3x-1)/2$
90. A  
 84 Hint:  $4x - 4$
91. B  
 26 Hint:  $x - 7$
92. B  
 40 Hint:  $3x + 10$
93. D
94. B
95. C
96. B
97. B  
 Pattern of the first arrow in each box:  
 UUP UUD DDU  
 Pattern of the second arrow in each box:  
 DUD UDU UDU  
 So, the answer should be DD, so it is B.
98. C
99. C
100. C  
 B is repeated, so no good.
101. B  
 It got to be a pair of triangular ears.  
 The inner circle with the bar rotates  $90^\circ$  clockwise.
102. C
103. A  
 The first arrow UUP.  
 The second arrow: DUD
104. B
105. A
106. D
107. D  
 One more



# Answer Key

- |                   |  |  |
|-------------------|--|--|
| 1. lose           | 42. B                                  | 80. C  |
| 2. fewer          | 43. C                                  | 81. syn key: D B A E C<br>ant key: A E D B C |
| 3. Effect         | 44. A                                  | 82. syn key: B E D C A<br>ant key: A E D B C |
| 4. forbear        | 45. D                                  | 83. syn key: E D C B A<br>ant key: B C D A E |
| 5. new            | 46. C                                  | 84. syn key: E A B D C<br>ant key: D A C B E |
| 6. conscious      | 47. B                                  | 85. led                                      |
| 7. bated          | masticate: chew                        | 86. palate                                   |
| 8. accept         | 48. A                                  | 87. close                                    |
| 9. aisle          | 49. C                                  | 88. alter                                    |
| 10. than          | 50. B                                  | 89. Peace                                    |
| 11. All ready     | egocentric: boastful;<br>self-centered | 90. flout                                    |
| 12. elicit        | 51. A                                  | 91. quite                                    |
| 13. yolk          | 52. B                                  | 92. You're                                   |
| 14. to            | 53. A                                  | 93. to                                       |
| 15. Feel          | 54. D                                  | 94. Compliment                               |
| 16. there         | 55. C                                  | 95. Through                                  |
| 17. filled        | 56. B                                  | 96. Allowed                                  |
| 18. uninterested  | 57. D                                  | 97. allowed                                  |
| 19. story         | 58. D                                  | 98. militate                                 |
| 20. disinterested | 59. D                                  | 99. Loose                                    |
| 21. A             | 60. B                                  | 100. advise                                  |
| 22. B             | 61. D                                  | 101. its                                     |
| 23. D             | 62. C                                  | 102. apprise                                 |
| 24. A             | 63. D                                  | 103. dual                                    |
| 25. D             | 64. A                                  | 104. drawer                                  |
| 26. A             | 65. C                                  | 105. loathe                                  |
| 27. B             | 66. D                                  | 106. Lose                                    |
| 28. C             | 67. B                                  | 107. bear                                    |
| 29. B             | 68. D                                  | 108. principle                               |
| 30. C             | 69. D                                  | 109. principal                               |
| 31. C             | 70. D                                  | 110. oral                                    |
| 32. A             | 71. A                                  | 111. complement                              |
| 33. D             | 72. D                                  | 112. here                                    |
| 34. C             | 73. A                                  | 113. torturous                               |
| 35. A             | 74. C                                  | 114. hole                                    |
| 36. A             | 75. C                                  | 115. Breath                                  |
| 37. B             | 76. B                                  | 116. desert                                  |
| 38. A             | 77. B                                  |  |
| 39. A             | 78. D                                  |  |
| 40. D             | 79. B                                  |  |
| 41. C             |  |  |

- 117. breath
- 118. There
- 119. duel
- 120. brooch
- 121. mitigate
- 122. chose
- 123. kerb
- 124. peace

# Answer Key

- |       |                    |                 |                |
|-------|--------------------|-----------------|----------------|
| 1. C  | 36. D              | 59. feel        | 94. does       |
| 2. C  | 37. C              | 60. affect      | 95. imply      |
| 3. A  | 38. A              | 61. your        | 96. principal  |
| 4. C  | 39. A              | 62. heard       | 97. cue        |
| 5. C  | 40. D              | 63. Cloths      | 98. infer      |
| 6. A  | 41. syn key: C E A | 64. much        | 99. hear       |
| 7. D  | D B                | 65. dose        | 100. course    |
| 8. D  | ant key: C B D     | 66. threw       | 101. Whose     |
| 9. C  | A E                | 67. woman       | 102. Coarse    |
| 10. B | 42. syn key: E C D | 68. forward     | 103. pore      |
| 11. A | B A                | 69. horde       | 104. draft     |
| 12. D | ant key: C A D     | 70. besides     | 105. loathe    |
| 13. D | E B                | 71. Accept      | 106. Lose      |
| 14. C | 43. syn key: A D B | 72. proscribe   | 107. bear      |
| 15. D | E C                | 73. aloud       | 108. principle |
| 16. C | ant key: C A D     | 74. too         | 109. principal |
| 17. D | B E                | 75. coarse      | 110. oral      |
| 18. C | 44. syn key: C E A | 76. complaisant | 111. compleme  |
| 19. C | D B                | 77. all ready   | nt             |
| 20. D | ant key: D E B     | 78. averse      | 112. here      |
| 21. A | C A                | 79. then        | 113. torturous |
| 22. C | 45. discreet       | 80. already     | 114. hole      |
| 23. B | 46. all together   | 81. they're     | 115. Breath    |
| 24. D | 47. choose         | 82. complacent  | 116. desert    |
| 25. A | 48. two            | 83. except      | 117. breath    |
| 26. C | 49. lead           | 84. By          | 118. There     |
| 27. B | 50. envelop        | 85. wreathe     | 119. duel      |
| 28. A | 51. pour           | 86. too         | 120. brooch    |
| 29. D | 52. barmy          | 87. loose       | 121. mitigate  |
| 30. D | 53. council        | 88. allowed     | 122. chose     |
| 31. B | 54. wreath         | 89. break       | 123. kerb      |
| 32. D | 55. edition        | 90. effect      | 124. peace     |
| 33. A | 56. chord          | 91. baited      |                |
| 34. A | 57. advice         | 92. aural       |                |
| 35. C | 58. advice         | 93. lose        |                |

# Answer Key

- |  |  |
|--|--|
| 1. $343/64$  | 41. 110  |
| 2. $\frac{7}{12}$  | 42. 88.3   |
| 3. .00135  | 43. {1, 2, 4, 5, 7, 10, 14, 20, 28, 35, 70, 140} |
| 4. .001071   | 44. $\Delta = 6$                                 |
| 5. 15  | 45. D  |
| 6. 0.9   | 46. A  |
| 7. -5  | 47. A  |
| 8. $157.85 \div 3.5 = 45.1$                                    | 48. A  |
| 9. False $2.5 = 250\%$   | 49. D  |
| 10. 2  | 50. B  |
| 11. $25^2 \times 5^3 = 5^7$                                    | 51. B  |
| 12. 600  | 52. C  |
| 13. 211  | 53. C  |
| 14. 80%  | 54. D  |
| 15. 50   | 55. C  |
| 16. 5.88   | 56. B  |
| 17. 2600   | 57. B  |
| 18. $90 \times \boxed{0.8} = 72$<br>$0.8 = 80\%$               | 58. B  |
| 19. 4720000  | 59. D  |
| 20. 180,000  | 60. C  |
| 21. {1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 24, 30, 40, 60, 120} | 61. B  |
| 22. $\Delta = 7$   | 62. 21 Hint: $x/4$                               |
| 23. 8  | 63. 33 Hint: $4x-3$                              |
| 24. $-1/7$   | 64. 13 Hint: $(x+5)/2$                           |
| 25. .000005  | 65. 16 Hint: $(x+31)/6$                          |
| 26. .00006   | 66. 17 Hint: $63 - 2x$                           |
| 27. 21   | 67. 14 Hint: $3x+2$                              |
| 28. 0.0039   | 68. 52 Hint: $3x-11$                             |
| 29. $1\frac{2}{3}$   | 69. 4 Hint: $(x-2)/3$                            |
| 30. 800  | 70. 39 Hint: $3x/2$                              |
| 31. 3  | 71. 67 Hint: $3x + 10$                           |
| 32. 8000000  | 72. 19 Hint: $(x + 2)/2$                         |
| 33. $26 \div 20 = 1.30 = 130\%$                                | 73. 9 Hint: $63 - 2x$                            |
| 34. 6,000  | 74. 84 Hint: $4x$                                |
| 35. 70   | 75. 33 Hint: $3(x+4)$                            |
| 36. $\frac{2}{3}$  | 76. 49 Hint: $3x + 10$                           |
| 37. -5   | 77. A  |
| 38. 84   | 78. B  |
| 39. 13   | 79. A  |
| 40. 80%  | 80. D  |
|  | 81. A  |
|  | C, D, E, F                                       |

## GTs (CogAT Quantitative Reasoning) (Fall, 2019) Issue 9

82. A

83. A

84. A

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.

85. D

86. C

87. B

88. B

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.

89. D

90. D

91. A

92. C

93. B

94. D

95. B