

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. $.14 \times .7 = .098$
80. 80

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

- | | |
|---|---|
| 80. 0.003 | 89. 4500000 |
| 81. 23 | 90. 10,000 |
| 82. 700 | 91. 12,000 |
| 83. 0 | 92. 101 |
| 84. 4,000 | 93. 100 |
| 85. 27.2 | 94. 14.62 |
| 86. $\frac{3}{15} = \frac{1}{5} = 20\%$ | 95. $48 = 2^4 \times 3$ |
| 87. .04 | 96. $1 \times 2 \times 3 \times 4 \times 5 = 120$ |
| 88. 3.68 | |

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 |

GT8 (CogAT Quantitative Reasoning) (Fall, 2019) Issue 2

- 81. C
- 82. C
- 83. B
- 84. D
- 85. C
- 86. *B*
- 87. A
- 88. D
- 89. B
- 90. B

- 91. C
- 92. D
- 93. A
- 94. C
- 95. D
- 96. D
- 97. C
- 98. B
- 99. A

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. 100π |
| 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
6 Hint: $(x+1)/2$ | 32. $\square = 3, \Delta = 4$ | 61. 625 |
| 2. C
17 Hint: $(x - 10)/3$ | 33. $\square = 3, \Delta = 4$ | 62. 1209 |
| 3. D
23 Hint: $(63-x)/2$ | 34. $\square = 3, \Delta = 4$ | 63. 1216 |
| 4. B
21 Hint: $(x+1)/2$ | 35. 121 | 64. 1221 |
| 5. C
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 = 5×2^4 | 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 = 5×2^7 | 87. 10101 |
| 23. 1024 | 6: 25, 50, 100, ..., 800 = 25×2^5 | 88. 142857 |
| 24. .000975625 | 4: 125, 250, ..., 1000 = 125×2^3 | 89. 999999
= 9×111111
= $9 \times 11 \times 10101$
= $9 \times 11 \times 7 \times 1443$
= $9 \times 11 \times 7 \times 13 \times 111$
= $9 \times 11 \times 7 \times 13 \times 3 \times 37$
= $3^3 \times 7 \times 11 \times 13 \times 37$ |
| 25. 43.6 | 1: 625 = 625×2^0 | 90. {1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84}. |
| 26. $70 \div 2 \div 3 \div 5 \div 7 \times 4 \times 6 \times 8 = 64$ | total # = 29 | 91. {1, 2, 4, 5, 10, 20, 25, 50, 100} |
| 27. $70 \div 2 \div 3 \div 4 \div 7 \times 5 \times 6 \times 8 \times 9 = 900$ | 51. 12321 | 92. A
17 Hint: $(x+5)/2$ |
| 28. 2.8 | 52. 1367631 | 93. B
39 Hint: $(4x+1)/3$ |
| 29. 7 | 53. $1024 - 625 = 399$ | |
| 30. $243 - 125 = 118$ | 54. 2.1 | |
| 31. 27.1 | 55. $0.45 = \frac{9}{20}$ | |
| | 56. $1.6 - 0.625 = 0.975$ | |
| | 57. 609 | |
| | 58. 616 | |
| | 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 $5 + 8 = \underline{13}$	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
to detain means to hold or keep back; to release means to let go | 10. C
pivotal means very important, or crucial, therefore unimportant is the opposite | 17. A
to assure means to make sure by removing doubt or worry; alarm means to give warning or to arouse fear |
| 2. C
famous means widely known; obscure means little known | 11. D
cursed means to be the subject of misfortune, or to be unlucky, therefore lucky is the opposite | 18. B
fallacious means tending to deceive; truthful means disposed to tell the truth |
| 3. B
colossal means incredibly large, therefore tiny is the opposite | 12. D
candid means to be frank, or honest, therefore dishonest is the opposite | 19. B
gumption means initiative, or drive; apathy means a lack of interest or concern |
| 4. A
a fluid is a substance that flows; a solid does not flow | 13. C
to flaunt means to display showily, or to show off, therefore hide is the opposite | 20. B
ecstasy means a state of rapturous delight; agony means intense pain of mind or body |
| 5. D
to continue means to act without interruption; to pause means to stop temporarily | 14. D
to heal means to restore to health; to maim means to injure | 21. D
astute means shrewd or showing acute mental vision; gullible means easily duped or cheated |
| 6. C
to labor means to work; to rest means to cease working | 15. A
to pacify means to soothe, or calm, therefore excite is the opposite | 22. A
winsome means cheerful and engaging; dour means gloomy or sullen |
| 7. B
brawny means muscled or strong, therefore weak is the opposite | 16. B
sullen means showing a disagreeable mood, or lacking cheer, therefore cheerful is the opposite | 23. C
droll means to have a humorous or odd quality; sedate means unruffled or serious |
| 8. A
fickle means to lack steadiness, therefore steady is the opposite | | |
| 9. C
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

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

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 |
| $2 \times 7 = 14$ | 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
deplete means to reduce or deprive or something essential; exhaust means to empty completely | 11. A
to impel means to drive forward using strong moral pressure, or to force | 20. A
to warrant means to serve as adequate ground or reason, or to justify |
| 2. A
voluntary means done by one's own will, or willing | 12. C
a throng is a large number of assembled people, or a mass | 21. C
to protract means to prolong in time or space, or to delay |
| 3. B
to refute means to prove wrong, or to deny the truth of | 13. C
imperial means befitting or suggesting an emperor; regal means befitting or suggesting a king | 22. B
lax means in a relaxed state, or slack |
| 4. D
to cheat means to influence by means of trickery, or to defraud | 14. B
to diffuse means to break up or spread out, or to scatter | 23. A
rigor means severity of life, or austerity |
| 5. C
miserable means in a state of distress or unhappiness | 15. D
to hinder means to hold back; one meaning of to check means to slow or bring to a stop | 24. D
discrete means individually distinct |
| 6. A
vintage means of old and enduring interest, or classic | 16. A
latent means capable of becoming but not currently visible, or dormant | 25. C
lissome means supple or flexible |
| 7. B
tart means pleasantly sharp or acid to the taste | 17. C
wretched means extremely distressed, or miserable | 26. A
to misprize means to hold in contempt, or to despise |
| 8. B
to corner means to drive into a corner, or to trap | 18. D
irksome means tedious or annoying | 27. C
to impugn means to attack verbally as false or lacking integrity; to assail means to attack |
| 9. A
one meaning of zest is keen enjoyment, or gusto | 19. B
to regulate means to bring under the control of law; to police means to control or keep order | 28. D
to supervene means to follow as an unexpected development |
| 10. D
to haggle means to negotiate over terms or price, or to bargain | | 29. A
exigent means demanding immediate attention, or urgent |
| | | 30. D
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
$\sqrt{(9 + 16 + 12^2)} = 13$</p> <p>73. B
$(4 \times 4 - 12) \div 4 = 1$</p> <p>74. C
$(12 - 4) \div 4 \div 4 = 1$</p> <p>75. C
$(2 + 4) \div 3 \times 1 = 2$</p> <p>76. C
$6 + 8 \div (1 + 1 + 2) = 8$</p> <p>77. D
$3 \times 9 - 15 = 12$</p> <p>78. C
$5 \times (9 - 3) + 7 = 37$</p> <p>79. C
$15 + 10 - (5 - 2) = 22$</p> <p>80. E
$15 + 10 - (5 + 2) = 18$</p> <p>81. A
$15 + 5 - (10 + 2) = 8$</p> <p>82. D
$4 \times 6 - 5 = 19$</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
Difference in the dash lines</p> <p>101. A
65 Hint: $6x - 31$</p> <p>102. A
15 Hint: $3x/2$</p> <p>103. C
40 Hint: $3x - 11$</p> | <p>104. D
15 Hint: $(2x+1)/3$</p> <p>105. B
32 Hint: $4x$</p> <p>106. D
10 Hint: $(x+4)/4$</p> <p>107. D
18 Hint: $(x+4)/4$</p> <p>108. C
3 Hint: $(x-1)/2$</p> <p>109. C
9 Hint: $(63-x)/2$</p> <p>110. C
56 Hint: $4x-4$</p> <p>111. A
71 Hint: $3x+2$</p> <p>112. B
5 Hint: $2x-1$</p> <p>113. B
36 Hint: $3x/2$</p> <p>114. B
76 Hint: $3x-11$</p> <p>115. C
51 Hint: $(4x+1)/3$</p> <p>116. D
31 Hint: $(x+11)/3$</p> <p>117. D
37 Hint: $2x-1$</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