

# Answer Key

1.  $50 = 1 \times 50$   
 $= 2 \times 25$   
 $= 5 \times 10$   
 {1, 2, 5, 10, 25, and 50} are the factors.
2.  $60 = 1 \times 60$   
 $= 2 \times 30$   
 $= 3 \times 20$   
 $= 4 \times 15$   
 $= 5 \times 12$   
 $= 6 \times 10$   
 {1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, and 60} are the factors
3.  $100 = 1 \times 100$   
 $= 2 \times 50$   
 $= 4 \times 25$   
 $= 5 \times 20$   
 $= 10 \times 10$   
 {1, 2, 4, 5, 10, 20, 25, 50, and 100} are the factors.  
 Speedy Computation
4.  $16 = 1 \times 16 = 2 \times 8 = 4 \times 4$ . Thus, the factors are {1, 2, 4, 8, 16}.
5.  $20 = 1 \times 20 = 2 \times 10 = 4 \times 5$ . Thus, the factors are {1, 2, 4, 5, 10, 20}.
6.  $72 = 2^3 \times 3^2$
7.  $96 = 2^5 \times 3$
8.  $99 = 3^2 \times 11$
9.  $108 = 2^2 \times 3^3$
10.  $144 = 2^4 \times 3^2$
11. 18 has factors: {1, 2, 3, 6, 9, 18}.  
 24 has factors : {1, 2, 3, 4, 6, 12, 24}.  
 Therefore, the largest common factor of 18 and 24 is 6.  
 Alternative method:  
 Use common division as below. Both 2 and 3 are circled since they are common factors.

step 1.	step 2.
$2 \overline{) 18, 24}$ $\underline{9, 12}$	$2 \overline{) 18, 24}$ $\underline{9, 12}$ $3 \overline{) 9, 12}$ $\underline{3, 4}$

Therefore, the largest common factor is  $2 \times 3 = 6$ .  
 The above alternative method is recommended for tons of reasons.

12. 7
13. 12
14. 12
15. 9
16. 4
17. 11
18. 8
19. 9
20. 27
21.  $65 + 12 = 77$
22.  $59 + 61 = 120$
23.  $33 + 45 = 78$
24.  $27.6 + 40.2 = 67.8$
25.  $47 + 89 + 71 = 207$
26.  $42 + 6 + 65 = 113$
27.  $52 \times 3 = 156$
28.  $2.3 \times 1.1 = 2.53$
29.  $13.4 - 8.9 = 4.5$
30.  $40.2 + 36 = 76.2$
31.  $\square = 47.4$
32.  $\square = 30$
33.  $\square = 0.65$
34.  $\square = 45$
35.  $\square = 3.6$
36.  $\square = 10.6$
37.  $\square = 52.2$
38.  $\square = 2.4$
39.  $\square = 44.4$
40.  $\square = 0.57$
41.  $83 + 81 = 164$
42.  $51.6 + 47.4 = 99$
43.  $4.4 + 7.1 = 11.5$
44.  $52.8 + 14.4 = 67.2$
45.  $5.9 - 2.4 = 3.5$
46.  $14 - 10 = 4$
47.  $9.5 + 6 + 20 = 35.5$
48.  $19.1 - 4.2 - 5 = 9.9$
49.  $168.2 - 90 - 75 = 3.2$
50.  $67 \times 3 = 201$
51. 100
52. 0
53.  $5 \times 4 - 4 \times 3 + 3 \times 2 = 14$
54.  $60 \times 30 = 1800$
55.  $63 \div 70 = .9$
56.  $70 \times 800 = 56000$
57.  $.02 \times .02 = .0004$

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58.  $.02 \times 3 = .06$   
 59.  $.02$   
 60.  $.7 \times .5 = .35$   
 61.  $.06 \times .06 = .0036$   
 62.  $30$   
 63.  $50 \div 8 = 6 \text{ R } 2$   
 64.  $120 \div 4 = 30$   
 65.  $144 \div 4 = 36$   
 66.  $168 \div 2 = 84$   
 67.  $\square = 3$   
 68.  $\square = 8$   
 69.  $\square = 4$   
 70.  $\square = 14$   
 71.  $\square = 8$   
 72.  $\square = 8$   
 73.  $\square = 4$   
 74.  $\square = 11$   
 75.  $\square = 2$   
 76.  $\square = 11$   
 77.  $\square = 7.1$   
 78.  $\square = 10.1$   
 79.  $\square = 0.05$   
 80.  $\square = 0.22$   
 81.  $\square = 121$   
 82.  $\square = 12$   
 83.  $1.5 \times 42 = 63$   
 $14 \times 1.5 = 21$   
 $76 \times 2.5 = 190$   
 $1.5 \times 30 = 45$   
 $8 \times 6.5 = 52$   
 84.  $6.5 \times 8 = 52$   
 $3.5 \times 16 = 56$   
 $4.5 \times 4 = 18$   
 $22 \times 1.5 = 33$   
 $6 \times 3.5 = 21$   
 85.  $46 \times 1.5 = 69$   
 $16 \times 7.5 = 120$   
 $36 \times 1.5 = 54$   
 $22 \times 7.5 = 165$   
 $1.5 \times 34 = 51$   
 86.  $16 \times 4.5 = 72$   
 $4.5 \times 22 = 99$

- $2.5 \times 4 = 10$   
 $2.5 \times 40 = 100$   
 $3.5 \times 14 = 49$   
 87.  $2.5 \times 68 = 170$   
 $16 \times 5.5 = 88$   
 $2.5 \times 84 = 210$   
 $48 \times 2.5 = 120$   
 $88 \times 2.5 = 220$   
 88. 
$$\begin{array}{r} \frac{10}{15} \\ - \frac{1}{15} \\ \hline \frac{9}{15} = \frac{3}{5} \end{array}$$
  
 89. 
$$\begin{array}{r} 6\frac{15}{20} \\ - \frac{11}{20} \\ \hline 6\frac{4}{20} = 6\frac{1}{5} \end{array}$$
  
 90. 
$$\begin{array}{r} 3\frac{16}{30} \\ - \frac{25}{30} \\ \hline 2\frac{21}{30} = 2\frac{7}{10} \end{array}$$
  
 91. 
$$\begin{array}{r} \frac{20}{30} \\ - \frac{3}{30} \\ \hline \frac{17}{30} \end{array}$$
  
 92. 
$$\begin{array}{r} \frac{23}{24} \\ + \frac{16}{24} \\ \hline \frac{39}{24} = \frac{13}{8} = 1\frac{5}{8} \end{array}$$
  
 93. 
$$\begin{array}{r} \frac{28}{48} \\ - \frac{18}{48} \\ \hline \frac{10}{48} = \frac{5}{24} \end{array}$$
  
 94. 
$$\begin{array}{r} 3\frac{10}{12} \\ - \frac{9}{12} \\ \hline 3\frac{1}{12} \end{array}$$
  
 95. 
$$\begin{array}{r} \frac{22}{30} \\ + \frac{21}{30} \\ \hline 1\frac{13}{30} \end{array}$$
  
 96.  $2 \times (3\frac{3}{4} + 8) = 23\frac{1}{2}$  (inches)  
 97.  $35\frac{1}{2} + 20\frac{3}{4} + 15\frac{1}{8} = 70\frac{4+6+1}{8} = 71\frac{3}{8}$  (pounds)  
 98.  $\frac{4}{24} + \frac{5}{24} = \frac{9}{24} = \frac{3}{8}$   
 99. 
$$\begin{array}{r} 3\frac{62}{70} \\ + 2\frac{49}{70} \\ \hline 6\frac{41}{70} \end{array}$$
  
 100. 
$$\begin{array}{r} \frac{7}{16} \\ - \frac{6}{16} \\ \hline \frac{1}{16} \end{array}$$

# Answer Key

- |                       |                       |                    |
|-----------------------|-----------------------|--------------------|
| 1. (A) absolve        | 43. (C) liability     | 85. (C) liability  |
| 2. (D) cede           | 44. (B) lenient       | 86. (E) masterful  |
| 3. (C) burglary       | 45. (D) marine        | 87. (F) mettlesome |
| 4. (E) convenience    | 46. (A) jugglery      | 88. (H) precede    |
| 5. (B) augment        | 47. (B) lenient       | 89. (I) presuppose |
| 6. (C) burglaries     | 48. (E) masterful     | 90. (A) jugglery   |
| 7. (B) augment        | 49. (D) Marine        |                    |
| 8. (D) cede           | 50. (C) liability     | 1. B               |
| 9. (E) convenience    | 51. (E) quiver        | 2. C               |
| 10. (A) absolved      | 52. (D) presuppose    | 3. D               |
| 11. (E) disaffect     | 53. (A) mettlesome    | 4. C               |
| 12. (B) crimp         | 54. (B) momentous     | 5. A               |
| 13. (C) dauntless     | 55. (C) precede       | 6. D               |
| 14. (A) converge      | 56. (A) mettlesome    | 7. A               |
| 15. (D) dirge         | 57. (C) precedes      | 8. C               |
| 16. (B) crimped       | 58. (B) momentous     | 9. B               |
| 17. (C) dauntless     | 59. (D) presupposes   | 10. A              |
| 18. (A) converge      | 60. (E) quivered      | 11. A              |
| 19. (E) disaffected   | 61. (B) augment       | 12. B              |
| 20. (D) dirge         | 62. (C) burglary      | 13. A              |
| 21. (C) enunciate     | 63. (D) cede          | 14. B              |
| 22. (B) enterprise    | 64. (E) convenience   | 15. D              |
| 23. (A) endearment    | 65. (F) converge      | 16. D              |
| 24. (E) famish        | 66. (A) absolve       | 17. C              |
| 25. (D) excerpt       | 67. (I) dirge         | 18. C              |
| 26. (E) famished      | 68. (J) disaffect     | 19. C              |
| 27. (C) enunciate     | 69. (G) crimp         | 20. B              |
| 28. (A) endearments   | 70. (H) dauntless     | 21. A              |
| 29. (B) enterprise    | 71. (A) endearment    | 22. B              |
| 30. (D) excerpt       | 72. (G) genial        | 23. A              |
| 31. (C) gibe          | 73. (I) gymnastics    | 24. C              |
| 32. (D) gymnastics    | 74. (H) gibe          | 25. C              |
| 33. (E) impracticable | 75. (J) impracticable | 26. D              |
| 34. (A) gaffe         | 76. (B) enterprise    | 27. D              |
| 35. (B) genial        | 77. (D) excerpt       | 28. A              |
| 36. (C) gibe          | 78. (C) enunciate     | 29. B              |
| 37. (E) impracticable | 79. (E) famish        | 30. D              |
| 38. (D) gymnastics    | 80. (F) gaffe         | 31. D              |
| 39. (A) gaffe         | 81. (G) momentous     | 32. A              |
| 40. (B) genial        | 82. (J) quiver        | 33. A              |
| 41. (A) jugglery      | 83. (B) lenient       | 34. D              |
| 42. (E) masterful     | 84. (D) marine        | 35. D              |

- 36. D
- 37. B
- 38. B
- 39. C
- 40. B
- 41. C
- 42. B
- 43. C
- 44. D
- 45. C
- 46. B
- 47. B
- 48. D
- 49. D
- 50. D
- 51. A
- 52. D
- 53. B
- 54. B
- 55. A
- 56. D
- 57. C
- 58. B
- 59. C
- 60. C
- 61. C
- 62. B
- 63. A
- 64. C
- 65. C
- 66. D
- 67. A
- 68. D
- 69. D
- 70. C

# Answer Key

step 1. 2   18, 24 9, 12	step 2. 2   18, 24 3   9, 12 3, 4	step 3. 2   18, 24 3   9, 12 3, 4
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1.

GCF =  $2 \times 3 = 6$

LCM =  $2 \times 3 \times 3 \times 4 = 72$ .

6   120, 96 20, 16	6   120, 96 4   20, 16 5, 4	6   120, 96 4   20, 16 5, 4
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GCD =  $6 \times 4 = 24$

LCM =  $6 \times 4 \times 5 \times 4 = 480$

- 2.
3. GCF=5, LCM=100
4. GCF=15, LCM=90
5. GCF=12, LCM=144
6. GCF=12, LCM=240
7. GCF=5, LCM=420
8. GCF=24, LCM=720
9. GCF=32, LCM=960
10. GCF=11, LCM=1936
11. GCF=13, LCM=1001
12. GCF=100, LCM=600
13.  $98.4 - 58.8 = 39.6$
14.  $44.4 - 15.6 = 28.8$
15.  $\square = 5.8$
16.  $\square = 3.5$
17.  $\square = 0.31$
18.  $\square = 0.52$
19.  $\square = 136$
20.  $\square = 15$
21.  $\square = 69.6$
22.  $\square = 34.8$
23.  $306.3 - 246 - 6.3 = 54$
24.  $14.6 - 4.7 - 8.8 = 1.1$
25.  $98.4 - 37.2 - 21 = 40.2$
26.  $35.4 - 27 - 0.2 = 8.2$
27.  $166.1 - 91 - 68 = 7.1$
28.  $97 - 5.3 - 80 = 11.7$
29.  $169 - 160 - 1 = 8$
30.  $16.1 - 8.8 - 3.6 = 3.7$
31.  $101.97 - 93 - 0.77 = 8.2$
32.  $68.6 - 46.2 - 17 = 5.4$

33. 18 has factors: {1, 2, 3, 6, 9, 18}.
- 24 has factors : {1, 2, 3, 4, 6, 12, 24}.
- Therefore, the largest common factor of 18 and 24 is 6.

Alternative method:

Use common division as below. Both 2 and 3 are circled since they are common factors.

step 1. 2   18, 24 9, 12	step 2. 2   18, 24 3   9, 12 3, 4
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Therefore, the largest common factor is  $2 \times 3 = 6$ .  
The above alternative method is recommended for tons of reasons.

34. 30
35. 16
36. 12
37. 4
38. 25
39. 37.5  
Since  $\frac{3}{4} \times 50 = 37.5$
40.  $60 \times \frac{3}{4} = 45$
41. 40  
Since  $\frac{2}{3} \times 60 = 40$
42.  $\frac{2}{3} \times 90 = 60$
43.  $5.37 + 3.81 - 5.8 - 9.79 = -6.41$
44.  $5.16 + 3.52 - 5.65 - 4.52 = -1.49$
45.  $2^5 + 0.2 \times 3^2 - 2^3 = 25.8$
46.  $0.6 \div 0.2 = 3$
47.  $0.27 \div 90 = 0.003$
48.  $0.07 \times 90 \times 0.04 = 0.252$
49.  $0.03 \times 0.5 \times 8 = 0.12$
50.  $73.8 - 12.1 + 2 \times 72.6 = 206.9$
51.  $8.8 - 0.2 \times 4.7 + 7.4 = 15.26$
52.  $6.3 - 0.3 \times 8.8 + 1.8 = 5.46$
53. 18 has factors: {1, 2, 3, 6, 9, 18}.
- 24 has factors : {1, 2, 3, 4, 6, 12, 24}.
- Therefore, the largest common factor of 18 and 24 is 6.
- Alternative method:
- Use common division as below. Both 2 and 3 are circled since they are common factors.



# GT5 (CogAT Numbers) (Fall, 2019) Issue 2A

step 1.	step 2.
$\begin{array}{r} 2 \overline{) 18, 24} \\ \underline{9, 12} \end{array}$	$\begin{array}{r} 2 \overline{) 18, 24} \\ \underline{36, 12} \\ 3 \overline{) 9, 12} \\ \underline{3, 4} \end{array}$

Therefore, the largest common factor is  $2 \times 3 = 6$ .  
The above alternative method is recommended for tons of reasons.

54. 30  
55. 16  
56. 12  
57. 4  
58. 25  
59. (A)  $16 = 6 \times 8 \div 3$   
(B)  $56 = 2 \times 4 \times 7$   
(C)  $30 = 5 \times 2 \times 3$   
(D)  $162 = 6 \times 9 \times 3$   
(E)  $16 = 2 \times 2 \times 4$   
60. (A)  $48 = 2 \times 8 \times 3$   
(B)  $65 = 6.5 \times 10$   
(C)  $126 = 6 \times 7 \times 3$   
(D)  $72 = 2 \times 4 \times 9$   
(E)  $96 = 4 \times 8 \times 3$   
61. (A)  $99 = 5.5 \times 18$   
(B)  $6 = 6 \times 9 \div 9$   
(C)  $200 = 2.5 \times 80$   
(D)  $9 = 1.5 \times 6$   
(E)  $63 = 4.5 \times 14$   
62. (A)  $168 = 8 \times 7 \times 3$   
(B)  $24 = 2 \times 4 \times 3$   
(C)  $80 = 2.5 \times 32$   
(D)  $56 = 2 \times 7 \times 4$   
(E)  $72 = 1.5 \times 48$   
63. (A)  $36 = 2 \times 3 \times 6$   
(B)  $162 = 9 \times 6 \times 3$   
(C)  $105 = 7 \times 5 \times 3$   
(D)  $63 = 3 \times 7 \times 3$   
(E)  $20 = 2.5 \times 8$

64. 
$$\begin{array}{r} \frac{21}{35} - \frac{11}{35} \\ \underline{\quad} \end{array}$$

65. 
$$\begin{array}{r} \frac{1}{25} - \frac{8}{25} \\ \underline{\quad} \end{array}$$
  
66. 
$$\begin{array}{r} \frac{21}{30} - \frac{26}{30} = \frac{13}{15} \\ + \frac{5}{30} \\ \underline{\quad} \end{array}$$
  
67. 
$$\begin{array}{r} \frac{20}{30} - \frac{15}{30} = \frac{1}{2} \\ \underline{\quad} \end{array}$$
  
68. 
$$\begin{array}{r} 3\frac{8}{12} = 104\frac{1}{12} \\ + 100\frac{5}{12} \\ \underline{\quad} \end{array}$$
  
69. 
$$\begin{array}{r} \frac{12}{16} - \frac{17}{16} = 1\frac{1}{16} \\ + \frac{5}{16} \\ \underline{\quad} \end{array}$$
  
70. 
$$\begin{array}{r} \frac{20}{30} - \frac{23}{30} \\ + \frac{3}{30} \\ \underline{\quad} \end{array}$$
  
71. 
$$\begin{array}{r} \frac{10}{12} - \frac{19}{12} = 1\frac{7}{12} \\ + \frac{7}{12} \\ \underline{\quad} \end{array}$$
  
72. 
$$\begin{array}{r} \frac{21}{30} - \frac{16}{30} = \frac{8}{15} \\ \underline{\quad} \end{array}$$
  
73. 
$$\begin{array}{r} \frac{15}{24} - \frac{7}{24} \\ \underline{\quad} \end{array}$$
  
74. 
$$\begin{array}{r} \frac{9}{24} - \frac{5}{24} \\ \underline{\quad} \end{array}$$
  
75. 
$$\begin{array}{r} \frac{9}{12} - \frac{11}{12} \\ + \frac{2}{12} \\ \underline{\quad} \end{array}$$
  
76. 
$$\begin{array}{r} \frac{9}{15} - \frac{4}{15} \\ \underline{\quad} \end{array}$$
  
77. 
$$\begin{array}{r} \frac{9}{24} - \frac{13}{24} \\ + \frac{4}{24} \\ \underline{\quad} \end{array}$$
  
78. 
$$\begin{array}{r} \frac{54}{60} - \frac{4}{60} = \frac{1}{15} \\ \underline{\quad} \end{array}$$
  
79. 
$$\begin{array}{r} 10\frac{14}{24} - 10\frac{5}{24} \\ \underline{\quad} \end{array}$$
  
80. 
$$\begin{array}{r} \frac{16}{30} - \frac{11}{30} \\ \underline{\quad} \end{array}$$
  
81. 
$$\begin{array}{r} 200\frac{7}{20} = 199\frac{19}{20} \\ - \frac{8}{20} \\ \underline{\quad} \end{array}$$
  
82. 
$$\begin{array}{r} 2\frac{21}{48} = 1\frac{25}{48} \\ - \frac{44}{48} \\ \underline{\quad} \end{array}$$



# Answer Key

- |                       |                       |                    |
|-----------------------|-----------------------|--------------------|
| 1. (C) bough          | 43. (A) insular       | 85. (H) placard    |
| 2. (A) amenable       | 44. (E) lessor        | 86. (D) irritant   |
| 3. (B) bigot          | 45. (C) inundate      | 87. (C) inundate   |
| 4. (E) combustible    | 46. (B) intrigued     | 88. (I) reciprocal |
| 5. (D) canvass        | 47. (D) irritant      | 89. (B) intrigue   |
| 6. (B) bigot          | 48. (C) inundated     | 90. (J) remediable |
| 7. (A) amenable       | 49. (A) insular       | 91. D              |
| 8. (C) boughs         | 50. (E) lessor        | 92. B              |
| 9. (D) canvass        | 51. (B) perch         | 93. D              |
| 10. (E) combustible   | 52. (D) reciprocal    | 94. C              |
| 11. (C) decanter      | 53. (C) placard       | 95. B              |
| 12. (D) deducible     | 54. (E) remediable    | 96. A              |
| 13. (B) courier       | 55. (A) moniker       | 97. A              |
| 14. (A) condemn       | 56. (D) reciprocals   | 98. A              |
| 15. (E) degradation   | 57. (A) moniker       | 99. D              |
| 16. (B) courier       | 58. (B) perched       | 100. D             |
| 17. (E) degradation   | 59. (E) remediable    | 101. D             |
| 18. (C) decanter      | 60. (C) placard       | 102. C             |
| 19. (A) condemned     | 61. (J) degradation   | 103. B             |
| 20. (D) deducible     | 62. (B) bigot         | 104. A             |
| 21. (E) epic          | 63. (A) amenable      | 105. B             |
| 22. (A) descent       | 64. (D) canvass       | 106. A             |
| 23. (B) disproportion | 65. (C) bough         | 107. C             |
| 24. (D) egg           | 66. (E) combustible   | 108. D             |
| 25. (C) docile        | 67. (F) condemn       | 109. B             |
| 26. (D) egged         | 68. (G) courier       | 110. C             |
| 27. (C) docile        | 69. (H) decanter      | 111. D             |
| 28. (B) disproportion | 70. (I) deducible     | 112. A             |
| 29. (E) epic          | 71. (E) epic          | 113. C             |
| 30. (A) descent       | 72. (F) exert         | 114. B             |
| 31. (C) imperial      | 73. (D) egg           | 115. B             |
| 32. (A) exert         | 74. (G) frail         | 116. A             |
| 33. (B) frail         | 75. (C) docile        | 117. D             |
| 34. (E) inspect       | 76. (A) descent       | 118. C             |
| 35. (D) ingratiate    | 77. (H) imperial      | 119. D             |
| 36. (B) frail         | 78. (I) ingratiate    | 120. A             |
| 37. (A) exert         | 79. (J) inspect       | 121. B             |
| 38. (E) inspects      | 80. (B) disproportion | 122. A             |
| 39. (C) imperial      | 81. (G) perch         | 123. C             |
| 40. (D) ingratiate    | 82. (E) lessor        | 124. B             |
| 41. (D) irritant      | 83. (F) moniker       | 125. D             |
| 42. (B) intrigue      | 84. (A) insular       | 126. B             |

127. D

128. D

    piquant: agreeably

    pungent or sharp in

    taste or flavor; flabby:

    loose; bland: pleasantly

    gentle or agreeable.

129. C

130. D

131. C

132. B

133. B

134. B

135. B

136. B

137. A

138. C

139. C

140. C

141. D

142. D

143. A

144. A

145. A

146. D

147. D

148. A

149. B

150. D



# Answer Key

- |                   |   |
|-------------------|---|
| 1. 57             | 53. 5, 2  |
| 2. 144            | $400 + (43 \times 3) = 529$   |
| 3. 76             | 54. 5, 7  |
| 4. 69             | $400 + 44 \times 4 = 576$   |
| 5. 98             | 55. 6, 2  |
| 6. 56             | $400 + 45 \times 5 = 625$   |
| 7. 156            | 56. 6, 7  |
| 8. 154            | $400 + 46 \times 6 = 676$   |
| 9. 162            | 57. 7, 2  |
| 10. 126           | $400 + 47 \times 7 = 729$   |
| 11. 16            | $30 \times 24 + 9 = 729$  |
| 12. 256           | 58. 7, 8  |
| 13. 25            | $400 + 48 \times 8 = 784$   |
| 14. 125           | $30 \times 26 + 4 = 784$  |
| 15. 9             | 59. 7, 8  |
| 16. 0.512         | $30 \times 28 + 1 = 841$  |
| 17. 0.008         | 60. 72  |
| 18. 4096          | 61. 1.4   |
| 19. 0.09          | 62. .01   |
| 20. 0.64          | 63. .06   |
| 21. 609           | 64. 16  |
| 22. 4209          | 65. 1387  |
| 23. 1216          | 66. $1\frac{3}{4}$  |
| 24. 1225          | $105 \text{ min} = 1 \text{ hr and } 45 \text{ min} = 1\frac{3}{4} \text{ hr.}$ |
| 25. 1224          | 67. $16^2 \times 2^3$   |
| 26. 4224          | $= 2^8 \times 2^3$  |
| 27. 616           | $= 2^{11}$  |
| 28. 624           | 68. 400   |
| 29. 621           | 69. 15  |
| 30. 1221          | 70. 1   |
| 31. 2             | 71. $2^5 = 32$  |
| 32. 4             | 72. $(100 - 1) \times 998$  |
| 33. 6             | $= 99800 - 998$   |
| 34. 9             | $= 98802$   |
| 35. 2             | $99 \times (1000 - 2)$  |
| 36. 5             | $= 99000 - 200 + 2$   |
| 37. 8             | $= 98802$   |
| 38. 3, 2          | 73. 0.008   |
| 39. 0.000027      | 74. 0.125   |
| 40. 78            | 75. 3125  |
| 41. 0.15          | 76. 16  |
| 42. 200           | 77. 0.04  |
| 43. 7             | 78. 2500  |
| 44. 25            | 79. 39  |
| 45. $5 + 77 = 82$ | 80. $20 \div \frac{2}{5} = 50$  |
| 46. $\frac{3}{4}$ | 81. 0.875   |
| 47. 12            | 82. 0.3   |
| 48. 6             | 83. 55  |
| 49. 0             | 84. $\frac{1}{20}$  |
| 50. 206.9         | 85. $.4 \times 250 = 100$   |
| 51. 64            | 86. $5 \div 20 = 0.25 = 25\%$   |
| 52. 4             |   |

## GT5 (Non Verbal Reasoning) (Fall, 2019) Issue 3

- |  |                         |
|--|-------------------------|
| 87. $16^2(16 - 1) = 256 \times 15 = 128 \times 30 = 3840$          | 116. A                  |
| 88. 11   | 117. A                  |
| 89. .1111  | $\angle ADC = 50^\circ$ |
| 90. $12\frac{6+4+3}{12} = 13\frac{1}{12}$                          | $\angle CAD = 60^\circ$ |
| 91. $\frac{2}{3}$  | 118. B                  |
| 92. $\frac{3}{5}$  | 119. A                  |
| 93. $\frac{4}{5}$  | 120. B                  |
| 94. $\frac{5}{4}$  | 121. D                  |
| 95. $\frac{4}{7}$  | 122. C                  |
| 96. $\frac{6}{5}$  | 123. B                  |
| 97. 0.005  | 124. B                  |
| 98. 2.5  | 125. C                  |
| 99. 4  | 126. A                  |
| 100. D   | 127. A                  |
| With unknown length of time, we cannot<br>determine the distance   | 128. D                  |
| 101. B   | 129. D                  |
| 102. C   | 130. D                  |
| $8 \times 7.5 = 7\frac{1}{2} \times 8..$                           | 131. C                  |
| 103. A   | 132. D                  |
| 104. A   | 133. E                  |
| 105. A   | 134. B                  |
| $(-\frac{1}{2})^3 = -\frac{1}{8} < (-\frac{1}{3})^2 = \frac{1}{9}$ | 135. B                  |
| 106. C   | 136. C                  |
| 107. C   | 137. A                  |
| 108. B   | 138. A                  |
| $40 \times \frac{3}{4} = 30 > 42 \times \frac{2}{3} = 28$          | 139. D                  |
| 109. C   | 140. C                  |
| 110. B   | 141. B                  |
| 111. A   | 142. A                  |
| 112. A   | 143. E                  |
| $\frac{1}{3} - \frac{1}{4} > 0$                                    | 144. E                  |
| $\frac{1}{6} - \frac{1}{5} < 0$                                    | 145. C                  |
| So,  | 146. B                  |
| $\frac{1}{3} - \frac{1}{4} > \frac{1}{6} - \frac{1}{5}$            | 147. D                  |
| $\frac{1}{3} + \frac{1}{5} > \frac{1}{4} + \frac{1}{6}$            | 148. A                  |
| 113. C   | 149. A                  |
| 114. C   | 150. D                  |
| 115. A   | 151. B                  |
|  | 152. B                  |
|  | 153. D                  |

# Answer Key

- |                      |                       |                       |
|----------------------|-----------------------|-----------------------|
| 1. (B) armada        | 43. (A) infusion      | 85. (E) pageant       |
| 2. (C) assault       | 44. (B) lassie        | 86. (J) recrimination |
| 3. (A) apt           | 45. (D) macerate      | 87. (G) predetermine  |
| 4. (D) blase         | 46. (A) infusion      | 88. (B) lassie        |
| 5. (E) censure       | 47. (C) luxurious     | 89. (H) pungent       |
| 6. (A) apt           | 48. (D) macerate      | 90. (A) infusion      |
| 7. (E) censured      | 49. (E) pageant       | 91. A                 |
| 8. (C) assault       | 50. (B) lassie        | 92. A                 |
| 9. (B) Armada        | 51. (A) plead         | 93. D                 |
| 10. (D) blase        | 52. (B) predetermine  | 94. C                 |
| 11. (B) congruent    | 53. (E) recrimination | 95. C                 |
| 12. (D) desert       | 54. (C) pungent       | 96. C                 |
| 13. (A) clinch       | 55. (D) range         | 97. A                 |
| 14. (C) culvert      | 56. (E) recrimination | 98. A                 |
| 15. (E) dignity      | 57. (D) ranged        | 99. A                 |
| 16. (C) culverts     | 58. (B) predetermined | 100. D                |
| 17. (E) dignity      | 59. (C) pungent       | 101. D                |
| 18. (A) clinched     | 60. (A) pleaded       | 102. D                |
| 19. (D) desert       | 61. (E) censure       | 103. C                |
| 20. (B) congruent    | 62. (H) culvert       | 104. B                |
| 21. (A) entirety     | 63. (I) desert        | 105. C                |
| 22. (E) garish       | 64. (F) clinch        | 106. B                |
| 23. (B) excessive    | 65. (J) dignity       | 107. D                |
| 24. (D) forum        | 66. (A) apt           | 108. D                |
| 25. (C) flinch       | 67. (G) congruent     | 109. A                |
| 26. (A) entirety     | 68. (B) armada        | 110. A                |
| 27. (E) garish       | 69. (D) blase         | 111. D                |
| 28. (D) forum        | 70. (C) assault       | 112. A                |
| 29. (B) Excessive    | 71. (J) infrequent    | 113. D                |
| 30. (C) flinching    | 72. (A) entirety      | 114. A                |
| 31. (C) inaccessible | 73. (D) forum         | 115. D                |
| 32. (A) genocide     | 74. (I) inalienable   | 116. D                |
| 33. (D) inalienable  | 75. (F) genocide      | 117. C                |
| 34. (E) infrequent   | 76. (E) garish        | 118. C                |
| 35. (B) huddle       | 77. (G) huddle        | 119. B                |
| 36. (D) inalienable  | 78. (B) excessive     | 120. C                |
| 37. (A) genocide     | 79. (C) flinch        | 121. D                |
| 38. (E) infrequent   | 80. (H) inaccessible  | 122. C                |
| 39. (C) inaccessible | 81. (I) range         | 123. D                |
| 40. (B) huddle       | 82. (F) plead         | 124. B                |
| 41. (E) pageant      | 83. (C) luxurious     | 125. C                |
| 42. (C) luxurious    | 84. (D) macerate      | 126. B                |

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

# Answer Key

1. C  
 $3\frac{1}{2} \times 24 = 84 = 1\frac{2}{5} \times 60$
2. A  
 $50 \times \frac{4}{5} = 40 > 60 \times \frac{3}{5} = 36$
3. A  
 $\frac{7}{9} = 0.7777\dots$   
(A) 0.78  
(B) 0.778
4. D
5. B
6. C  
 $\frac{2}{3} \times \frac{3}{4} = \frac{1}{2}$
7. A  
(A)  $60^\circ$   
(B)  $55^\circ$
8. A
9. A
10. A
11. B  
 $2 \times 80 = 160 > 2\frac{1}{2} \times 60 = 150$
12. C
13. C
14. C
15. B
16. B
17. C
18. B
19. A
20. A
21. B  
A palm tree is to a pine tree as a bathing suit is to a parka. This relationship shows an opposite—warm to cold. Palm trees grow in warm climates and pine trees grow in cold climates. Bathing suits are worn in warm weather; parkas are worn in cold weather.
22. C  
A trapeze performer is to a clown as swings are to a sliding board. This relationship shows a classification. Trapeze performers and clowns are found at circuses; swings and sliding boards are found on playgrounds.
23. C  
House is to tent as truck is to wagon. The house is a more sophisticated form of shelter than the tent; the truck is a more sophisticated mode of transportation than the wagon.
24. A  
A snow-capped mountain is to a crocodile as a cactus is to a starfish. This relationship shows an opposition. The crocodile does NOT belong on the mountain; the starfish does NOT belong in the desert.
25. D  
Hose is to firefighter as needle is to nurse. This relationship shows the tools of the trade. A hose is a tool used by a firefighter; a needle is a tool used by a nurse.
26. B  
Dishes are to kitchen sink as car is to hose. Dishes are cleaned in the sink; the car is cleaned with the hose.
27. A  
Knitting needles are to sweater as a computer is to a report. This relationship shows the tool needed to make a product. The knitting needles are used to create the sweater; the computer is used to write a report.
28. B  
Bread is to knife as log is to ax. This relationship shows function. The knife cuts the bread; the ax chops the log.
29. A  
Cup is to bowl as vacuum cleaner is to broom. This is another relationship about function. The cup and bowl are both used for eating. The vacuum cleaner and broom are both used for cleaning.
30. D  
A bookshelf is to a book as a refrigerator is to a carton of milk. The book is placed on a bookshelf; the milk is placed in a refrigerator.
31. B
32. A
33. A
34. A
35. D
36. B
37. E
38. A
39. E
40. A
41. A

**GT5 (CogAT Non Verbal Reasoning) (Fall, 2019) Issue 4**

- |       |       |
|-------|-------|
| 42. B | 64. E |
| 43. C | 65. A |
| 44. E | 66. B |
| 45. B | 67. D |
| 46. B | 68. A |
| 47. A | 69. A |
| 48. D | 70. C |
| 49. A | 71. B |
| 50. B | 72. D |
| 51. B | 73. C |
| 52. C | 74. C |
| 53. B | 75. A |
| 54. E | 76. A |
| 55. B | 77. A |
| 56. E | 78. B |
| 57. C | 79. A |
| 58. D | 80. B |
| 59. B | 81. C |
| 60. E | 82. B |
| 61. D | 83. C |
| 62. A | 84. C |
| 63. B | 85. C |

# Answer Key

- |                  |       |
|------------------|-------|
| 1. B             | 43. B |
| 2. C             | 44. A |
| 3. B             | 45. C |
| 4. C             | 46. D |
| 5. C             | 47. A |
| 6. D             | 48. B |
| 7. C             | 49. D |
| 8. A             | 50. B |
| 9. B             | 51. B |
| 10. A            | 52. D |
| 11. A            | 53. D |
| 12. A            | 54. C |
| 13. D            | 55. D |
| 14. C            | 56. A |
| 15. C            | 57. A |
| 16. C            | 58. B |
| 17. A            | 59. A |
| 18. A            | 60. D |
| 19. A            | 61. A |
| 20. D            | 62. C |
| 21. D            | 63. B |
| 22. D            | 64. D |
| 23. D            | 65. D |
| 24. D            | 66. D |
| 25. D            | 67. C |
| 26. D            | 68. D |
| 27. C            | 69. C |
| 28. C            | 70. D |
| 29. D            | 71. B |
| 30. B            | 72. B |
| 31. B            | 73. A |
| 32. B            | 74. A |
| 33. B            | 75. B |
| 34. B same class | 76. A |
| 35. C part/whole | 77. B |
| 36. C same class | 78. C |
| 37. B same class | 79. D |
| 38. A part/whole | 80. A |
| 39. B part/whole |       |
| 40. C same class |       |
| 41. A            |       |
| 42. C            |       |

# Answer Key

- |  |   |
|--|---|
| 1. D   | 13. B   |
| Sheep are to sweater as pine trees are to log cabin. Wool comes from the sheep to make a sweater; wood comes from the trees to make the log cabin.   | 14. C   |
| 2. C   | 15. A   |
| A penny is to a dollar as a small house is to a skyscraper. This relationship shows smaller to larger. A penny is much smaller than a dollar; a house is much smaller than a skyscraper.   | 16. B   |
| 3. C   | 17. B   |
| Leather boots are to cow as pearl necklace is to oyster. The leather to make the boots comes from a cow; the pearls to make the necklace come from oysters.  | 18. B   |
| 4. C   | 19. B   |
| Camera is to photograph as teakettle is to a cup of tea. The camera is used to make the photo; the teakettle is used to make the tea.  | 20. A   |
| 5. B   | 21. A   |
| A T-shirt is to a pair of shoes as a chest of drawers is to a couch. The relationship shows to which group something belongs. The T-shirt and shoes are both articles of clothing; the chest and couch are both pieces of furniture. | 22. E   |
| 6. B   | 23. E   |
| Guitar is to horn as hammer is to saw. This relationship is about grouping. The guitar and horn are musical instruments. The hammer and saw are carpentry tools.   | 24. E   |
| 7. A   | 25. D   |
| Grapes are to a pear as cheese is to butter. This relationship shows the grouping or category to which something belongs. Grapes and pears are fruit; cheese and butter are both dairy products.                                     | 26. D   |
| 8. A   | 27. D   |
| The United States is to the world as a brick is to a brick house. This relationship shows part to whole. The United States is one part of the world; the brick is one part of the house.   | 28. D   |
| 9. D   | 29. C   |
| An oar is to a canoe as a steering wheel is to a car. This is a functional relationship. The oar helps steer the canoe in the way that the steering wheel steers the car.  | 30. C   |
| 10. C  | $\frac{1}{4} \times 3 = \frac{3}{4} = \frac{3}{8} \times 2$ |
| Toothbrush is to toothpaste as butter knife is to butter. This relationship shows function. The toothbrush is used to apply the toothpaste to teeth; the knife is used to apply butter to bread.                                     | 31. B   |
| 11. B  | $25 \div 2\frac{1}{2} = 10 > 8 = 44 \div 5\frac{1}{2}$      |
| 12. B  | 32. C   |
|  | 33. C   |
|  | 34. C   |
|  | 35. A   |
|  | 36. C   |
|  | 37. A   |
|  | $y = 16/3 > x = 4.5$  |
|  | ..  |
|  | 38. A   |
|  | 39. B   |
|  | 40. B   |
|  | $\sqrt{.16} = 0.4, \frac{1}{3} = 0.33\dots$                 |
|  | 41. B   |
|  | $-0.2 > -0.25.$   |
|  | 42. B   |
|  | $\frac{98}{99} = 1 - \frac{1}{99}$                          |
|  | $\frac{100}{101} = 1 - \frac{1}{101}$                       |
|  | 43. C   |
|  | 44. A   |
|  | The perimeter = $2 \times (15 + 10) = 50$ (in)              |
|  | >   |
|  | The number of 1 by 1 squares = $50 - 4 = 46$                |
|  | 45. B   |



**GT5 (CogAT Non Verbal Reasoning) (Fall, 2019) Issue 5**

- |   |       |
|---|-------|
| 46. B   | 66. C |
| $40 \times 5.6 = 224 > 19.2 = 30 \times 6.4.$ | 67. C |
| 47. B   | 68. B |
| 48. C   | 69. C |
| 49. C   | 70. A |
| 50. D   | 71. A |
| 51. E   | 72. C |
| 52. C   | 73. A |
| 53. C   | 74. B |
| 54. D   | 75. D |
| 55. C   | 76. C |
| 56. E   | 77. D |
| 57. E   | 78. C |
| 58. D   | 79. D |
| 59. B   | 80. D |
| 60. A   | 81. B |
| 61. C   | 82. B |
| 62. C   | 83. A |
| 63. E   | 84. A |
| 64. A   | 85. C |
| 65. B   |       |

# Answer Key

- |                  |       |
|------------------|-------|
| 1. B             | 43. B |
| 2. B             | 44. B |
| 3. A             | 45. A |
| 4. A             | 46. D |
| 5. C             | 47. C |
| 6. D             | 48. C |
| 7. C             | 49. C |
| 8. D             | 50. B |
| 9. B             | 51. B |
| 10. B            | 52. D |
| 11. B            | 53. D |
| 12. A            | 54. C |
| 13. C            | 55. C |
| 14. D            | 56. D |
| 15. D            | 57. A |
| 16. B            | 58. C |
| 17. A            | 59. B |
| 18. B            | 60. A |
| 19. C            | 61. A |
| 20. B            | 62. B |
| 21. C part/whole | 63. D |
| 22. D            | 64. A |
| 23. D            | 65. B |
| 24. C            | 66. A |
| 25. B            | 67. A |
| 26. D            | 68. D |
| 27. B            | 69. D |
| 28. C            | 70. C |
| 29. C            | 71. C |
| 30. D            | 72. B |
| 31. D            | 73. D |
| 32. B            | 74. B |
| 33. B            | 75. D |
| 34. B            | 76. C |
| 35. C            | 77. C |
| 36. D            | 78. A |
| 37. D            | 79. A |
| 38. B            | 80. B |
| 39. D            |       |
| 40. C            |       |
| 41. D            |       |
| 42. B            |       |

# Answer Key

1. C
2. A
3. D
4. B
5. B
6. B
7. B
8. D  
Insufficient information
9. A  
 $20 \div 5 = 4 > 10 \div 3 = 3\frac{1}{3}$
10. A  
 $\frac{1}{3} + \frac{1}{4} = 0.33... + 0.25 = 0.58...$   
 $\frac{1}{2} + \frac{1}{6} = 0.5 + 0.16... = 0.66...$
11. C
12. B
13. C
14. D
15. C  
 $\frac{30}{2.5} = 12 = \frac{60}{5}$
16. C
17. B
18. A  
 $2^{3^2} = 2^9$   
 $2^{2^3} = 2^8$
19. B
20. A  
 $8000 > 900$
21. C  
Scissors is to knife as pitcher is to watering can. This relationship is about function. The scissors and knife are both used for cutting. The pitcher and watering can are both used for watering.
22. D  
A squirrel is to an acorn as a bird is to a worm. A squirrel eats acorns; a bird eats worms.
23. B  
An eye is to a pair of binoculars as a mouth is to a microphone. This relationship shows magnification. The binoculars help one see farther. The microphone helps one speak louder.
24. C  
A U.S. flag is to a fireworks display as a Halloween mask is to a pumpkin. This relationship shows symbols. The flag and fireworks are symbols of the Fourth of July. The mask and pumpkin are symbols of Halloween.
25. D  
A can of paint is to a paintbrush as a spool of thread is to a sewing needle. This is a relationship of function. Both show the tool needed to perform a task.
26. A  
A telephone is to a stamped letter as an airplane is to a bus. A telephone and letter are both forms of communication. An airplane and bus are both forms of transportation.
27. D  
Batteries are to a flashlight as telephone wires are to a telephone. The batteries provide power to the flashlight; the wires send power to the telephone.
28. D  
Tree is to leaf as bird is to feather. This relationship shows part to whole. The leaf is a part of the tree; the feather is a part of the bird.  
C is a gas light, which does not run on electricity.
29. A  
Hand is to ring as head is to cap. A ring is worn on a person's hand; a cap is worn on a person's head.
30. D  
Car is to horse and buggy as computer is to pen and ink. This relationship shows the difference between modern times and times past.
31. C
32. E
33. D
34. D
35. C
36. B
37. B
38. B
39. D
40. D
41. B
42. B
43. C
44. C
45. D
46. B
47. C
48. D
49. A

**GT5 (CogAT Non Verbal Reasoning) (Fall, 2019) Issue 6**

- |       |       |
|-------|-------|
| 50. C | 68. C |
| 51. C | 69. C |
| 52. A | 70. B |
| 53. D | 71. C |
| 54. C | 72. C |
| 55. A | 73. D |
| 56. C | 74. A |
| 57. C | 75. D |
| 58. E | 76. C |
| 59. C | 77. A |
| 60. E | 78. B |
| 61. E | 79. C |
| 62. D | 80. C |
| 63. C | 81. B |
| 64. B | 82. B |
| 65. E | 83. A |
| 66. D | 84. B |
| 67. B | 85. C |

# Answer Key

- |                  |       |
|------------------|-------|
| 1. D             | 43. D |
| 2. A             | 44. D |
| 3. D             | 45. A |
| 4. C             | 46. B |
| 5. C             | 47. C |
| 6. B             | 48. C |
| 7. C             | 49. B |
| 8. B             | 50. C |
| 9. D             | 51. C |
| 10. A            | 52. B |
| 11. D            | 53. A |
| 12. D            | 54. B |
| 13. C            | 55. B |
| 14. C            | 56. B |
| 15. B            | 57. B |
| 16. A            | 58. B |
| 17. A            | 59. A |
| 18. A            | 60. D |
| 19. D            | 61. A |
| 20. C            | 62. D |
| 21. C            | 63. D |
| 22. B            | 64. A |
| 23. D            | 65. D |
| 24. D            | 66. A |
| 25. B            | 67. C |
| 26. D            | 68. B |
| 27. C            | 69. D |
| 28. B synonyms   | 70. C |
| 29. A same class | 71. D |
| 30. B part/whole | 72. C |
| 31. C synonyms   | 73. A |
| 32. C part/whole | 74. C |
| 33. B same class | 75. D |
| 34. A synonyms   | 76. B |
| 35. C part/whole | 77. A |
| 36. B            | 78. A |
| 37. C            | 79. A |
| 38. D            | 80. D |
| 39. D            |       |
| 40. C            |       |
| 41. D            |       |
| 42. B            |       |

# Answer Key

1. C
2. C
3. C
4. B
5. C
6. C
7. C  
Both are 1.
8. A
9. A
10. A
11. B
12. C  
 $66\frac{2}{3}\% = \frac{2}{3}$
13. A
14. A
15. B
16. B
17. C
18. C
19. B  
A)  $3 \times 12 = 36$   
B)  $3 \text{ yd} = 9 \text{ ft} = \boxed{108}$  inches
20. D
21. D  
A fish is to a dragonfly as a chicken is to corn. Fish eat insects; chickens eat corn.
22. A  
Pyramid is to triangle as cube is to square. This relationship shows dimension. The triangle shows one dimension of the pyramid; the square is one dimension of the cube.
23. B  
Closet is to shirt as kitchen cabinets are to cans of food. The shirt is stored in the closet; the food is stored in the cabinets.
24. B  
Hat and mittens are to desert as snorkel and flippers are to snow. This relationship shows an opposition. The hat and mittens are NOT worn in the desert; the snorkel and flippers are NOT worn in the snow.
25. B  
Towel is to bathtub as chest of drawers is to bed. The towel and bathtub are both found in a bathroom; the chest and the bed are both found in a bedroom.
26. A  
Sail is to sailboat as pedal is to bicycle. The sail makes the sailboat move; the pedal makes the bicycle move.
27. C  
A shirt is to a button as a belt is to a belt buckle. A button is used to close a shirt; a belt buckle is used to close a belt.
28. B  
A toddler is to an adult as a caterpillar is to a butterfly. This relationship shows the young and the adult. The caterpillar is an early stage of the adult butterfly.
29. D  
Newspaper is to book as trumpet is to banjo. The newspaper and book are to read; the trumpet and banjo are musical instruments to play.
30. A
31. E
32. C
33. C
34. D
35. D
36. C
37. B
38. A
39. A
40. B
41. B
42. E
43. C
44. E
45. B
46. B
47. D
48. C
49. D
50. E
51. E
52. B
53. C
54. D
55. D
56. F
57. D

**GT5 (CogAT Non Verbal Reasoning) (Fall, 2019) Issue 7**

- |       |       |
|-------|-------|
| 58. E | 72. D |
| 59. C | 73. A |
| 60. E | 74. C |
| 61. A | 75. A |
| 62. D | 76. A |
| 63. C | 77. A |
| 64. C | 78. D |
| 65. B | 79. C |
| 66. A | 80. B |
| 67. A | 81. C |
| 68. A | 82. C |
| 69. A | 83. C |
| 70. A | 84. D |
| 71. B | 85. C |

# Answer Key

- |                  |       |
|------------------|-------|
| 1. C             | 43. A |
| 2. B             | 44. C |
| 3. B             | 45. C |
| 4. C             | 46. A |
| 5. A             | 47. D |
| 6. A             | 48. D |
| 7. A             | 49. A |
| 8. D             | 50. D |
| 9. D             | 51. D |
| 10. C            | 52. C |
| 11. B            | 53. D |
| 12. C            | 54. C |
| 13. C            | 55. B |
| 14. A            | 56. D |
| 15. D            | 57. D |
| 16. B            | 58. B |
| 17. C            | 59. D |
| 18. B            | 60. B |
| 19. A            | 61. D |
| 20. B            | 62. B |
| 21. B            | 63. A |
| 22. C            | 64. B |
| 23. B            | 65. A |
| 24. B            | 66. A |
| 25. C            | 67. C |
| 26. D            | 68. D |
| 27. D            | 69. C |
| 28. D            | 70. A |
| 29. D            | 71. B |
| 30. B            | 72. A |
| 31. D            | 73. B |
| 32. D            | 74. C |
| 33. D            | 75. B |
| 34. D            | 76. C |
| 35. A            | 77. B |
| 36. A            | 78. C |
| 37. A            | 79. B |
| 38. B            | 80. B |
| 39. B            |       |
| 40. B part/whole |       |
| 41. C            |       |
| 42. C            |       |



# Answer Key

1. B
2. B
3. C
4. C  
 $90.25 = 90\frac{1}{4}$
5. B
6. B
7. C
8. B
9. A  
 $\frac{1}{2} + \frac{2}{3} = \frac{7}{6} > \frac{1}{3} + \frac{3}{5} = \frac{14}{15}$   
 $\frac{1}{\frac{1}{2} + \frac{2}{3}} < \frac{1}{\frac{1}{3} + \frac{3}{5}}$
10. A
11. C
12. C
13. A
14. B  
(B)  $2 \times 4 \times 8 \times 5 \times 25 \times 125 = 2 \times 5 \times 4 \times 25 \times 8 \times 125 = 10 \times 100 \times 1000 = 1,000,000$
15. C
16. C  
 $30 = 1 \times 2 \times 3 \times \boxed{5}$
17. A
18. C
19. C
20. C
21. C  
In this series, the shaded part inside the circle gets larger and then smaller.
22. C  
Study the pattern carefully. In the first segment, two letters face right and the next two face left. The first letter in the second segment repeats the last letter of the previous segment. The same is true for the third segment. But the fourth segment changes again; it is the opposite of the first segment, so the last two letters must face right.
23. A  
Look carefully at the number of dots in each domino. The first segment goes from five to three to one. The second segment goes from one to three to five. The third segment repeats the first segment.
24. C  
All four segments use the same figures: two squares, one circle, and one triangle. In the first segment, the squares are on the outside of the circle and triangle. In the second segment, the squares are below the other two. In the third segment, the squares are on the inside. In the fourth segment, the squares are above the triangle and circle.
25. B  
Look at each segment. In the first segment, the arrows are both pointing to the right. In the second segment, the first arrow is up and the second is down. The third segment repeats the first segment. In the fourth segment, the arrows are up and then down. Because this is an alternating series, the two arrows pointing right will be repeated, so option b is the only possible choice.
26. B  
Each arrow in this continuing series moves a few degrees in a clockwise direction. Think of these arrows as the big hand on a clock. The first arrow is at noon. The last arrow before the blank would be 12:40. Choice b, the correct answer, is at 12:45.
27. D  
This sequence concerns the number of sides on each figure. In the first segment, the three figures have one side, and then two sides, and then three sides. In the second segment, the number of sides increases and then decreases. In the third segment, the number of sides continues to decrease.
28. D  
This is an alternating series. The first and third segments are repeated. The second segment is simply upside down.
29. A  
In this series, the figures increase the amount of shading by one-fourth and, once a square is completely shaded, starts over with an unshaded square. In the second segment, you will notice that the figure goes from completely shaded to completely unshaded. This is why choice a is the correct choice.
30. D  
Look for opposites in this series of figures. The first and second segments are opposites of each other. The same is true for the third and fourth segments.
31. B
32. D

## GT5 (CogAT Non Verbal Reasoning) (Fall, 2019) Issue 8

- |       |       |
|-------|-------|
| 33. B | 60. A |
| 34. A | 61. B |
| 35. C | 62. D |
| 36. C | 63. C |
| 37. B | 64. D |
| 38. E | 65. D |
| 39. A | 66. A |
| 40. B | 67. D |
| 41. D | 68. B |
| 42. B | 69. C |
| 43. A | 70. A |
| 44. D | 71. B |
| 45. E | 72. D |
| 46. E | 73. A |
| 47. D | 74. B |
| 48. A | 75. A |
| 49. D | 76. B |
| 50. D | 77. B |
| 51. D | 78. A |
| 52. C | 79. C |
| 53. D | 80. B |
| 54. B | 81. D |
| 55. E | 82. B |
| 56. D | 83. D |
| 57. B | 84. B |
| 58. D | 85. D |
| 59. D |       |

# Answer Key

- |                  |       |
|------------------|-------|
| 1. A             | 43. A |
| 2. C             | 44. C |
| 3. B             | 45. B |
| 4. B             | 46. D |
| 5. D             | 47. A |
| 6. D             | 48. A |
| 7. A             | 49. B |
| 8. C             | 50. C |
| 9. A             | 51. A |
| 10. C            | 52. C |
| 11. C            | 53. A |
| 12. B            | 54. B |
| 13. D            | 55. D |
| 14. D            | 56. C |
| 15. D            | 57. B |
| 16. A            | 58. B |
| 17. B            | 59. A |
| 18. C            | 60. C |
| 19. D            | 61. C |
| 20. B            | 62. B |
| 21. A synonyms   | 63. B |
| 22. A antonyms   | 64. B |
| 23. C same class | 65. B |
| 24. B synonyms   | 66. B |
| 25. B antonyms   | 67. A |
| 26. A part/whole | 68. C |
| 27. C antonyms   | 69. C |
| 28. D            | 70. C |
| 29. A            | 71. D |
| 30. B            | 72. D |
| 31. D            | 73. A |
| 32. B            | 74. A |
| 33. A            | 75. A |
| 34. D            | 76. D |
| 35. B            | 77. D |
| 36. D            | 78. A |
| 37. A            | 79. B |
| 38. A            | 80. D |
| 39. D            |       |
| 40. B            |       |
| 41. A            |       |
| 42. A            |       |