

Answer Key

1. B
 $\underline{5}$ (prime)
2. B
 $5 + 8 = \underline{13}$
3. A
 $6 \times 120 = \underline{720}$
4. D
 $33 - 11 = 22$
 $30 - 10 = \underline{20}$
5. D
 $\underline{4289}$
6. D
 $4 \times 5 = 20$
 $3 \times 20 = 60$
 $2 \times 60 = 120$
 $1 \times 120 = \underline{120}$
7. B
 $2 \times 1 = 2$
 $2 \times 2 = 4$
 $2 \times 32 = \underline{64}$
8. C
 $7 + 27 = \underline{34}$
9. D
1101
10. D
 $4 + 5 = 9$
 $5 + 9 = 14$
 $4 + 14 = 18$
 $5 + 18 = 23$
 $4 + 23 = 27$
 $5 + 27 = 32$
11. C
 $3 \times 27 = \underline{81}$
12. A
 $11 + 78 = \underline{89}$
13. A
0.729
0.1³, 0.2³, ...
14. B
 $6^2 = \underline{36}$
15. B
 $9 \div 3 = \underline{3}$
16. D
 $1/2$
17. B
 $85 + 17 = \underline{102}$
18. C
 $2 \times 24 = \underline{48}$
19. A
19
 $2 \times 1\text{st} + 1 = 2\text{nd}$
20. C
123 32 1
21. B
Coffee goes into a cup and soup goes into a bowl. Choices a and c are incorrect because they are other utensils. The answer is not choice d because the word food is too general.
22. D
A gym is a place where people exercise. A restaurant is a place where people eat. Food (choice a) is not the answer because it is something people eat, not a place or location where they eat. The answer is not choice b or c because neither represents a place where people eat.
23. C
An oar puts a rowboat into motion. A foot puts a skateboard into motion. The answer is not choice a because running is not an object that is put into motion by a foot. Sneaker (choice b) is incorrect because it is something worn on a foot. Jumping (choice d) is incorrect because although you do need feet to jump, jumping is not an object that is put into motion by means of a foot.
24. D
A window is made up of panes, and a book is made up of pages. The answer is not choice a because a novel is a type of book. The answer is not choice b because glass has no relationship to a book. Choice c is incorrect because a cover is only one part of a book; a book is not made up of covers.
25. C
Secretly is the opposite of openly, and silently is the opposite of noisily. Choices a and b are clearly not the opposites of silently. Choice d means the same thing as silently.
26. B
An artist makes paintings; a senator makes laws. The answer is not choice a because an attorney does not make laws and a senator is not an attorney. Choice c is incorrect because a senator is a politician. Constituents (choice d) is also incorrect because a senator serves his or her constituents.
27. B
An actor performs in a play. A musician performs at a concert. Choices a, c, and d are incorrect because none is people who perform.

GT8 (Fall, 2018) Mock Exam 1

28. A
Careful and cautious are synonyms (they mean the same thing). Boastful and arrogant are also synonyms. The answer is not choice b because humble means the opposite of boastful. The answer is not choice c or d because neither means the same as boastful.
29. D
A group of lions is called a pride. A group of fish swim in a school. Teacher (choice a) and student (choice b) refer to another meaning of the word school. The answer is not choice c because self-respect has no obvious relationship to this particular meaning of school.
30. A
Guide and direct are synonyms, and reduce and decrease are synonyms. The answer is not choice b or d because neither means the same as reduce. Choice c is incorrect because increase is the opposite of reduce.
31. B
A yard is a larger measure than an inch (a yard contains 36 inches). A quart is a larger measure than an ounce (a quart contains 32 ounces). Gallon (choice a) is incorrect because it is larger than a quart. Choices c and d are incorrect because they are not units of measurement.
32. C
A lizard is a type of reptile; a daisy is a type of flower. Choices a and b are incorrect because a petal and a stem are parts of a flower, not types of flowers. Choice d is incorrect because an alligator is another type of reptile, not a type of flower.
33. B
Elated is the opposite of despondent; enlightened is the opposite of ignorant.
34. D
A marathon is a long race and hibernation is a lengthy period of sleep. The answer is not choice a or b because even though a bear and winter are related to hibernation, neither completes the analogy. Choice c is incorrect because sleep and dream are not synonymous.
35. A
If someone has been humiliated, they have been greatly embarrassed. If someone is terrified, they are extremely frightened. The answer is not choice b because an agitated person is not necessarily frightened. Choices c and d are incorrect because neither word expresses a state of being frightened.
36. D
An odometer is an instrument used to measure mileage. A compass is an instrument used to determine direction. Choices a, b, and c are incorrect because none is an instrument.
37. A
An optimist is a person whose outlook is cheerful. A pessimist is a person whose outlook is gloomy. The answer is not choice b because a pessimist does not have to be mean. Choices c and d are incorrect because neither adjective describes the outlook of a pessimist.
38. C
A sponge is a porous material. Rubber is an elastic material. Choice a is incorrect because rubber would not generally be referred to as massive. The answer is not choice b because even though rubber is a solid, its most noticeable characteristic is its elasticity. Choice d is incorrect because rubber has flexibility.
39. D
Candid and indirect refer to opposing traits. Honest and untruthful refer to opposing traits. The answer is not choice a because frank means the same thing as candid. Wicked (choice b) is incorrect because even though it refers to a negative trait, it does not mean the opposite of honest. Choice c is incorrect because truthful and honest mean the same thing.
40. D
A pen is a tool used by a poet. A needle is a tool used by a tailor. The answer is not choice a, b, or c because none is a person and therefore cannot complete the analogy.
41. A
 $10 - 20 - 30 = -40$
42. D
 $(4 - 12) \div 1 = -8$
43. B
 $30 - (10 - 20) = 40$
44. D
 $12 - 1 \div 4 = 11.75$
45. C
 $5 \times 7 - 3 = 32$
46. B
 $7 \times (3 - 5) = -14$
47. D
 $1 - 12 \div 4 = -2$
48. D
 $(1 - 4) \div 12 = -0.25$
49. C
 $11 + 4 + 7 - 2 = 20$
50. B
 $2 + 5 - 4 - 8 = -5$
51. D
 $10 \times 8 \times 2 \div 4 = 40$
52. A
 $3 + 10 - 2 \times 4 = 5$

GTs (Fall, 2018) Mock Exam 1

- | | |
|---|---|
| <p>53. C
$10 \times 8 \div 2 \div 4 = 10$</p> <p>54. D
$2 \times 4 \times 2 + 1 = 17$</p> <p>55. D
$0.001 + 1 \div 0.1 \div 0.01 = 1000.001$</p> <p>56. B
$1 + 8 \times 4 \div 2 = 17$</p> <p>57. B
$8 + 2 \times 2 \div 1 = 12$</p> <p>58. B
$1 + 0.1 \div 0.01 \div 0.001 = 10001$</p> <p>59. D
$(8 + 2) \times 4 \div 1 = 40$</p> <p>60. D
$(8 - 2 \div 2) \times 2 = 14$</p> <p>61. A
$4 + 6 \div (3 \div 4) = 12$</p> <p>62. C
$(1 + 4 \div 2) \times 8 = 24$</p> <p>63. B
$(2 + 4) \times 1 \div 8 = 0.75$</p> <p>64. C
$\sqrt{169} - \sqrt{144} = 1$
$\sqrt{\sqrt{169} - 144} = \sqrt{5}$</p> <p>65. C
$\sqrt{\sqrt{81} + 91} = 10$</p> <p>66. A</p> <p>67. B</p> <p>68. A
C, D, E, F</p> <p>69. D</p> <p>70. A</p> <p>71. A</p> <p>72. A</p> <p>73. 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.</p> <p>74. D</p> <p>75. C</p> <p>76. B</p> <p>77. 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.</p> <p>78. D</p> <p>79. D</p> | <p>80. A</p> <p>81. C</p> <p>82. B</p> <p>83. D</p> <p>84. B</p> <p>85. B</p> <p>86. C</p> <p>87. A</p> <p>88. D</p> <p>89. B</p> <p>90. B</p> <p>91. B</p> <p>92. B</p> <p>93. D
Insufficient information</p> <p>94. A
$20 \div 5 = 4 > 10 \div 3 = 3\frac{1}{3}$</p> <p>95. A
$\frac{1}{3} + \frac{1}{4} = 0.33\dots + 0.25 = 0.58\dots$
$\frac{1}{2} + \frac{1}{6} = 0.5 + 0.16\dots = 0.66\dots$</p> <p>96. C</p> <p>97. B</p> <p>98. C</p> <p>99. D</p> <p>100. C
$\frac{30}{2.5} = 12 = \frac{60}{5}$</p> <p>101. C</p> <p>102. B</p> <p>103. A
$2^{3^2} = 2^9$
$2^{2^3} = 2^8$</p> <p>104. B</p> <p>105. A
$8000 > 900$</p> <p>106. A</p> <p>107. A</p> <p>108. C</p> <p>109. C</p> <p>110. B</p> <p>111. A</p> <p>112. D</p> <p>113. B</p> <p>114. A</p> <p>115. A</p> <p>116. A</p> <p>117. D</p> <p>118. A</p> |
|---|---|

GTs (Fall, 2018) Mock Exam 1

- | | |
|-----------------------|---|
| 119. B | 149. D |
| 120. C | 150. D |
| 121. C | 151. A |
| 122. C | 152. D |
| 123. A | 153. B |
| 124. C | 154. D |
| 125. A | 155. A |
| 126. A | 156. D |
| 23 Hint: $(3x - 1)/4$ | 157. A |
| 127. D | 158. B |
| 20 Hint: $(3x - 1)/4$ | 159. D |
| 128. C | 160. B |
| 38 Hint: $(3x - 1)/4$ | 161. C |
| 129. D | 162. C |
| 12 Hint: $(x+11)/3$ | 163. A |
| 130. A | 164. D |
| 9 Hint: $x/3 - 4$ | 165. C |
| 131. B | 166. A |
| 47 Hint: $6x - 31$ | $? = 25, \square = 9$ |
| 132. D | 167. A |
| 42 Hint: $3(x+4)$ | $? = 4, \square = 7, \odot = 5$ |
| 133. D | 168. A |
| 19 Hint: $(x - 10)/3$ | $? = 5, \square = 6, \odot = 9$ |
| 134. B | 169. C |
| 11 Hint: $2x - 1$ | $? = 14, \square = 27$ |
| 135. A | 170. D |
| 36 Hint: $2x - 2$ | $? = 9, \square = 6$ |
| 136. C | 171. C |
| 31 Hint: $(2x+1)/3$ | $? = 15, \square = 5$ |
| 137. C | 172. D |
| 19 Hint: $(x+31)/6$ | $? = 33, \square = 11$ |
| 138. A | 173. B |
| 13 Hint: $4x - 3$ | $? = 10$ |
| 139. B | $\square = 30$ |
| 52 Hint: $(3x-1)/2$ | 174. A |
| 140. A | $? = 21, \square = 5$ |
| 84 Hint: $4x - 4$ | $? = \square + 16$ |
| 141. B | $100 + \square = (\square + 16)\square$ |
| 26 Hint: $x - 7$ | $\square^2 + 15\square - 100 = 0$ |
| 142. B | $(\square + 20)(\square - 5) = 0$ |
| 40 Hint: $3x + 10$ | $\square = 5 \text{ or } -20$ |
| 143. C | $? = 21 \text{ or } -4$ |
| 5 Hint: $x - 7$ | 175. C |
| 144. A | $? = 5, \square = 4$ |
| 60 Hint: $4x - 4$ | 176. B |
| 145. B | $? = 7, \square = 9$ |
| 10 Hint: $2x/3$ | 177. B |
| 146. A | $? = 13, \square = 21$ |
| 147. B | |
| 148. A | |

GT8 (Fall, 2018) Mock Exam 1

178. D

$$? = 30, \square = 15$$

179. D

$$? = 5, \square = 7, \odot = 42$$

180. A

$$? = 7, \square = 44, \odot = 4$$