# Sample Test #1

Answers

1. 17th and 18th Centuries (1600s and 1700s)

2. help the king of France win at cards **OR** predict the weather **OR** find out why people were dying of cholera

3. help factories produce high quality goods cheaply **OR** help insurance industry assess risks **OR** public opinion polls **OR** forensic science **OR** accountability

4. unlikely to happen by chance

5. B (normal)

6. A (bimodal)

7. D (skewed)

8. C (uniform)

9. E (outlier)

10. J (sample)

11. A (descriptive statistics)

12. F (parameter)

13. K (statistics)

14. C (inferential statistics)

15. D (ogive)

16. H (population)

17. I (relative frequency)

18. G (placebo)

19. L (variance)

20. B (frequency)

21. H (quantitative data)

22. C (mean)

23. K (trimmed mean)

24. A (coefficient of variation)

25. J (standard deviation)

26. D (median)

27. F (mode)

28. G (qualitative data)

29. I (range)

30. E (midrange)

31. A

32. D

33. B

34. A

35. C

36. B

37. D

38. B

39. C

40. A

41. B

42. A

43. E

44. C

45. D

46. B

47. A

48. D

49. B

50. A

51. C

52. Population of Iowa Cities ( 1|5 = 15,000 )

|  |  |
| --- | --- |
| 1 | 5579 |
| 2 | 25567779 |
| 3 | 359 |
| 4 | 0 |
| 5 | 789 |
| 6 | 289 |
| 7 |  |
| 8 | 2 |
| 9 |  |
| 10 | 1 |
| 11 |  |
| 12 |  |
| 13 |  |
| 14 |  |
| 15 |  |
| 16 |  |
| 17 |  |
| 18 |  |
| 19 |  |
| 20 | 2 |

53. Skewed is probably the best answer, because there are more small cities than big ones.

54. The main cluster is in the 20,000s.

55. The biggest gap is between 101,000 and 202,000. Des Moines (202,000) is an outlier.

56. 50.19230769

57. 27

58. 34

59. 108.5

60. 187

61. 41.66535177

62. about 83%

63. 236.2857143

64. 247

65. 418

66. 135.6278171

67. 18394.90477 (will vary with rounding)

68. about 57%

69. because nothing repeats

70. 10.5

71. mean

72. mode

73. mean

74. E (random)

75. B (normal)

76. The **main** problem is that the doctor pictures change both their height and width, instead of just getting taller. (There are numerous other problems, too—such as the doctors not being lined up straight or giving three different sets of information on the same graph.)

77. scale does not count evenly

78. scale doesn’t start at 0

79. graph has 3-D appearance, which makes U.S. look too big

80. overlap—doesn’t add to 100%

81. 18 ÷ 20 = .9, so **90**

82. Remember to ignore ties; just count the states that are LESS.

 7 ÷ 20 = .35, so **35**

83. **0**

84. 19 ÷ 20 = .95, so **90**

85. .55 \* 20 = 11, so get rid of bottom 11 … next one up is **Tennessee**

86. .30 \* 20 = 6, so get rid of bottom 6 … next one up is **Ohio**

87. 8 ÷ 12 = .666…, so **67**

88. .40 \* 12 = 4.8, so get rid of bottom 5 … next one up is **Gigi**

89. .10 \* 12 = 1.2, so get rid of bottom 1 … next one up is **Katrina**

900. The most that could be less than you is 7, so 7 ÷ 8 = .875 … so **88**

91. **Group 3** (look at center of box)

92. **Group 1** (look at right end of whisker)

93. **Group 2**

94. **Group 2** (length from left whisker to right whisker)

95. **Group 3** (look at width of box)

96. **Appx. 98**

97. **Appx 39**

98. **Appx 77** (middle of box)

99. **Appx 14** (This is 84 – 70, the distance from the left to right ends of the box.)

100. Minimum = 18, Qa = 19, Median = 52, Q3 = 88.5, Maximum = 100

101. 88.5 – 19 = **69.5**