A Conceptual Guide to Statistics Using SPSS
Berkman & Reise

Test Bank for Chapter 2: Descriptive Statistics

1. _____ variables are made up of distinct groups that differ qualitatively rather than quantitatively.
   A) Continuous
   B) Categorical
   C) Independent
   D) Dependent

2. _____ variables are those with a natural underlying metric or those that vary along a continuum.
   A) Continuous
   B) Categorical
   C) Independent
   D) Dependent

3. If you are working with continuous data, you might want to transform the data into _____, which have a mean of 0 and a standard deviation of 1.
   A) covariances
   B) residuals
   C) standard units
   D) standard deviations

4. In hypothesis testing, the _____ is the value that your observed test statistic must exceed in order to be called "significant."
   A) correlation
   B) critical value
   C) minimum value
   D) covariance

5. The critical value in hypothesis testing depends on two things: sample size and _____.
   A) Type II error rate
   B) covariance
   C) sum of squares
   D) Type I error rate

6. Any value greater or less than 2 times the _____ from the mean of a variable will be called "significantly different" from that mean.
   A) standard error
   B) standard deviation
   C) z-score

D) mean squared error

7. One of the key assumptions that all of the statistics that researchers use is that their dependent measures are _____ distributed.
A) positively
B) normally
C) significantly
D) chi-square

8. If your data are perfectly normally distributed, then the P-P plot will be _____.
A) a curved line
B) a bimodal line
C) a straight, 30-degree line
D) a straight, 45-degree line

9. A _____ distribution has fat tails and is more flat in the middle than a normal distribution.
A) mesokurtic
B) leptokurtic
C) platykurtic
D) skewed

10. When the data points on a P-P plot are above the straight line, it means that there are _____ observations by that percentile.
A) fewer than expected
B) more than expect
C) an equal amount of
D) zero

11. In the "detrended" P-P plot, the *y*-axis represents the _____ at each percentile.
A) sum of squares
B) deviation from normality
C) error variance
D) correlation

12. In the "detrended" P-P plot, positive values indicate that there are _____ observations at that point.
A) too few
B) standardized
C) zero
D) too many

13. Positive skew values mean the distribution has a _____.
A) high peak
B) long tail to the left

C) long tail to the right
D) flat peak

14. Negative skew values mean the distribution has a _____.
A) high peak
B) long tail to the left
C) long tail to the right
D) flat peak

15. Positive kurtosis values mean the distribution has a _____.
A) high peak
B) long tail to the left
C) long tail to the right
D) flat peak

16. Negative kurtosis values mean the distribution has a _____.
A) high peak
B) long tail to the left
C) long tail to the right
D) flat peak

17. A perfectly normal distribution has a skewness of ____ and a kurtosis of ____.
A) 1, 0
B) 0, 1
C) 0, 0
D) 1, 1

18. What type of variable are you concerned with when analyzing Frequencies in SPSS?

19. What is the mean and standard deviation of a *z*-score?

20. A math teacher hypothesized that the mean score on an algebra exam would be 75. After grading the exam, she found that the mean score was 88 and the standard error around that mean was 2.5. Should the teacher accept or reject her hypothesis?

Answers:

1. B
2. A
3. C
4. B
5. D
6. A

7. B
8. D
9. C
10. A
11. B
12. D
13. C
14. B
15. A
16. D
17. C
18. A categorical variable
19. Mean = 0, SD = 1
20. She should reject her hypothesis. 88 – 2*2.5 = 83 and 88 + 2*2.5 = 93. A score of 75 is clearly outside the critical range of 83 to 93.