

Name: _____

How Ready Are You For This Class?

1. The distribution of the amount of money given to charity by a random sample of adults would probably be:
 - a. Skewed positively
 - b. Skewed negatively
 - c. Normal
 - d. Rectangular

2. Adding a constant to each score in a set of scores will **not** change the
 - a. mean.
 - b. median.
 - c. mode.
 - d. standard deviation.

3. A z-score of $+1.0$, will have the greatest percentile rank in which of these distributions?
 - a. Normal
 - b. positively skewed
 - c. negatively skewed
 - d. rectangular
 - e. No single best answer

4. Which factor has the largest impact on statistical power?
 - a. the sample size
 - b. the population mean
 - c. the alpha level
 - d. the effect size
 - e. No single best answer

5. A researcher gathers some data concerning the speed of cars driving down the highway. Because the researcher is concerned the data may be highly positively skewed (it is driving speed after all) he/she using a z-transformation on the scores. The researcher then computes the from the Pearson product moment correlation between the actual speed of the cars and the new z transformed speed. That correlation would likely have a value of:
 - a. 0
 - b. +1
 - c. -1
 - d. .5
 - e. No way to know given the information

6. In #5 above, what impact would the z transformation have on the degree of positive skew in the data?
 - a. no influence
 - b. reduce it
 - c. increase it
 - d. no way to tell.

Open Book Example

1. DeCasper and Spence (1986) assigned expectant mothers to read one of two stories every night during the last trimester of their pregnancy. After the birth of their child, mothers read that story (the old story) and a different story (the new story) into a tape recorder. The tapes were then played on stereo headphones one story to each ear to their newborns. Newborns could control which side played (i.e., which story they heard) by modifying their sucking rate on a pacifier. Their results showed that infants listened to the old story for an average of 3.2 minutes and the new story for an average of 2.8 minutes. The results are below

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 new - old	-.26810	.48654	.08224	?????	-.10097	-3.260	34	.003

A. Identify the independent (predictor) variable and dependent variable and their level of measurement
B. Is the study a within or between group study? Is it correlational or experimental? Why?
C. What statistical test was performed here and was it the proper test given the study described?
D. What should the value be for the lower bound of the confidence interval (where the ??????? is)?
E. What conclusion can you reach about given the data analysis above? Is it significant?
F. Why is the t value (-3.260) negative? What does that tell you?