

## Psychology 311 QUIZ 2 Review: Chapters 4, 5, & 6

Quiz contains: True/False, Multiple Choice, Short Answer, and Computations

To perform well, you need to understand the concepts we have discussed in class, as well as be able to apply the concepts to computations.

Here are some sample computations you should be able to perform:

1. What happens to the value of the standard deviation if you ...?
  - a) add a constant to every score?
  - b) multiply every score by a constant?
  - c) add several scores to the distribution with values all equal to the mean?
2. Using sample data, be able to find SS,  $s^2$ , and s.
3. A population of scores has  $\mu = 29$ . Within this population, an X value of 43 corresponds to a  $z = 1.50$ . Find the population standard deviation.
4. Given z,  $\mu$  and  $\sigma$ , be able to find the corresponding X values. Given X,  $\mu$  and  $\sigma$ , be able to find the corresponding z scores.
5. A random door prize giveaway has 9 Snickers bars, 15 Mars bars, 8 chocolate chip cookies, and 12 peanut butter cookies as prizes to be given away. What is the probability that you will get a cookie as your door prize?
6. A normal distribution has a mean of  $\mu = 50$  with  $\sigma = 5$ . Find the following probabilities.
  - a)  $p(X > 46)$
  - b)  $p(X < 52)$
  - c)  $p(51 < X < 53)$

You should also be able to...

- C Identify proportions within a normal distribution.
- C Locate percentiles using the normal distribution.
- C Use the normal distribution table to calculate probabilities.

Finally, you should be very familiar with:

- C The formula and components for calculating variance.
- C Properties of z-scores
- C Properties of a normal distribution
- C Requirements for random sampling

Remember: This study guide gives you an idea of what to expect on the quiz. It is not an exact replica, and all material covered in the chapters and in class is fair game.