

EXS 201 Statistics in Exercise Science

Practice Problems

Name _____

Directions: **Diagram each** of the problems below on a normal curve. Then show *all* the calculations used to arrive at the answers and be sure to **circle** them. Please express your answers out to two decimal places.

1. What percent of the scores fall between z-scores of -2.03 and 1.47?
2. What z-score is equivalent to the 15th percentile (P_{15})?
3. *Above* what T-score do 9% of the scores lie?
4. What percent of the scores lie less than (within) .75 standard deviations of the mean?
5. You would like to award special fitness awards to all clients who do well on your physical fitness assessment. “Ironman/woman” awards will be given to those whose cumulative fitness T-score is above 70. “Superman/woman” awards will go to those with T-scores between 55 and 70. And “I am Fit” awards will go to everyone with T-scores between 45 and 55. Illustrate and label these areas on your normal curve. If Lucy’s combined total is a *raw score* of 73, what award will she get if the mean for X was 68 with the standard deviation was 6.