# Intro to Statistics - HW 4

## Z Scores

If is a data point in a normal distribution with mean and standard deviation , then the **z-score** of , given by

measures the number of standard deviations the number is away from the mean. The mean of a normal distribution has z-score of . In a distribution with and , the value would have a -score of 3 and a -score of -2.8 would correspond to the value 78.

## Exercises

These problems may proceed more quickly if you are able to type the answers.

1. Consult today’s notes, and rewrite questions 1-8 to use -scores instead of raw scores. The answers to your new questions should remain the same as the original answers.
2. Now rewrite your answers to questions 9-14 in terms of -scores instead of raw scores.