Math 101 - Worksheet for Section 12.3-4

Name: _____

The ages of 10 most powerful women in U.S. are given below.

43,58,35,43,48,51,43,51,58,50

1. Find the mean, median and mode.

2. Find the range.

3. Find the variance and standard deviation.

x	f	$x-\bar{x}$	$(x-\bar{x})^2$	$(x-\bar{x})^2 f$
$\sum$				

4. Find the coefficient of variation.

5. In a survey conducted by the national center for health statistics, the sample mean height of women in United States (ages 20-29) was 64.2 inches, with a sample standard deviation of 2.9 inches. Estimate the percent of women whose heights are between 58.4 inches and 70 inches if

   (a) the distribution of women's heights is normal.

   (b) the distribution of women's heights is not known.

6. For Problem 5, find the values of $\bar{x} \pm s$, $\bar{x} \pm 2s$, and $\bar{x} \pm 3s$.

7. For problem 5, find the z-score for 55.5, 58.4, 61.3, 64.2, 67.1, 70, and 72.9. Show them on a graph of standard normal distribution.