Statistics S4: Normal Distributions

1. For a normally distributed data set with $\mu = 100$ and $\sigma = 5$, what percent of the data falls between 95 and 105?

2. For a normally distributed data set with $\mu = 84$ and $\sigma = 8$, what percent of the data is greater than 92?

3. For a normally distributed data set with $\mu = 50$ and $\sigma = 10$, what percent of the data falls between 30 and 60?

4. For a normally distributed data set with $\mu = 77$ and $\sigma = 5$, what percent of the data is less than 62?

5. Given the following normally distributed data set:

98, 99, 99, 95, 98, 94, 102, 101, 93, 114, 117, 94, 96, 112, 103

Find:

a. The mean_____ b. median _____

c. mode _____ d. lowest value _____

e. highest value _____ f. range _____

g. Lower Quartile _____ h. Upper Quartile _____

i. standard deviation

x	$x-\mu$	$(x-\mu)^2$

the percent of data that is

a. 1 standard deviation away from the mean: _____

b. 2 standard deviations away from the mean: _____

c. 3 standard deviations away from the mean: _____