Practice Problem #2:

For the following sets of data, calculate the mean and standard deviation of the data. Describe the mean and standard deviation in words after calculating it.

a. The data set below gives the prices (in dollars) of cordless phones at an electronics store.

35, 50, 60, 60, 75, 65, 80

2/3 of the phones cost between $46.7 and $74.7

$\bar{x} = 60.7$

$\sigma = 14$

$\bar{x} + \sigma = 74.7$

$\bar{x} - \sigma = 46.7$

b. The data set below gives the numbers of home runs for the 10 batters who hit the most home runs during the 2005 Major League Baseball regular season.

51, 48, 47, 46, 45, 43, 41, 40, 40, 39

2/3 of # of home runs is between 40.2 and 47.8

$\bar{x} = 44$

$\sigma = 3.8$

$\bar{x} + \sigma = 47.8$

$\bar{x} - \sigma = 40.2$

c. The data set below gives the waiting times (in minutes) of several people at a department of motor vehicles service center.

11, 7, 14, 2, 8, 13, 3, 6, 10, 3, 8, 4, 8, 4, 7

2/3 of the waiting time lines were between 3.7 and 10.7 minutes

$\bar{x} = 7.2$

$\sigma = 3.5$

$\bar{x} + \sigma = 10.7$

$\bar{x} - \sigma = 3.7$

d. The data set below gives the calories in a 1-ounce serving of several breakfast cereals.

135, 115 ,120, 110, 110, 100, 105, 110, 125

2/3 of the calories are between 124.5 and 104.3

$\bar{x} = 114.4$

$\sigma = 10.1$

$\bar{x} + \sigma = 124.5$

$\bar{x} - \sigma = 104.3$