

## §3.2: Numerical Measures for Symmetric Data

1.] Suppose a sample yields the following numerical data:

$$x_1 = 5, \quad x_2 = -3, \quad x_3 = 2, \quad x_4 = -5, \quad x_5 = 6.$$

a.) Determine the value of  $\Sigma x$ .

b.) Determine the value of  $\Sigma x^2$ . Is this value the same as  $(\Sigma x)^2$ .

c.) Determine the value of  $\Sigma(3x + 2)$

d.) Find the sample mean,  $\bar{x}$ .

2.] Consider the two sets of sample data below:

	$x_1$	$x_2$	$x_3$	$x_4$	$x_5$
Sample 1	1	2	3	4	5
Sample 2	1	3	3	3	5

a.) Find  $\bar{x}$  for each sample.

b.) Find the deviations from the mean for each sample.

c.) Find the variance of each sample.

d.) Find the standard deviation of each sample.

3.] Compute  $s^2$  and  $s$  for the following data set and be sure to specify the units:

$$x_1 = 8 \text{ feet}, \quad x_2 = 10 \text{ feet}, \quad x_3 = 25 \text{ feet}, \quad x_4 = 5 \text{ feet}.$$