## **Scientific Computing**

## Mean, Variance, and Standard Deviation Worksheet

Assume set X contains these numbers: {3, 9, 0, 2, 17, 8}

Question 1: How many elements are in set X?

$$n =$$

Question 2: What is the mean  $(\mu)$  of set X?

$$\mu = \frac{1}{n} \sum_{i=1}^{n} x_i$$

$$\mu =$$

Question 3: What is the <u>variance</u> ( $\sigma^2$ ) of set X?

$$\sigma^2 = \frac{1}{n} \sum_{i=1}^{n} (x_i - \mu)^2$$

$$\sigma^2 =$$

Question 4: What is the standard deviation ( $\sigma$ ) of set X?

$$\sigma = \sqrt{\sigma^2}$$