

Name: \_\_\_\_\_ Per: \_\_\_\_\_ Date: \_\_\_\_\_

Calculate Standard Deviation and Variance of the sample set below

x	$x - \mu$	$(x - \mu)^2$
22		
15		
29		
33		
19		
26		
31		
24		
$\mu =$		$\Sigma =$

$$\mu = \underline{\hspace{2cm}}$$

$$\sigma^2 = \underline{\hspace{2cm}}$$

$$\sigma = \underline{\hspace{2cm}}$$

x	$x - \mu$	$(x - \mu)^2$
88		
73		
52		
97		
82		
39		
77		
$\mu =$		$\Sigma =$

$$\mu = \underline{\hspace{2cm}}$$

$$\sigma^2 = \underline{\hspace{2cm}}$$

$$\sigma = \underline{\hspace{2cm}}$$

Determining a Z-Value.

$$Z = \frac{x - \mu}{\sigma}$$

Given the following information – determine the z-value.

<p>1. Scores on a history test have average of 80 with standard deviation of 6. What is the z-score for a student who earned a 75 on the test?</p>	<p>2. The weight of chocolate bars from a particular chocolate factory has a mean of 8 ounces with standard deviation of .1 ounce. What is the z-score corresponding to a weight of 8.17 ounces?</p>
<p>3. Books in the library are found to have average length of 350 pages with standard deviation of 100 pages. What is the z-score corresponding to a book of length 80 pages?</p>	<p>4. The temperature is recorded at 60 airports in a region. The average temperature is 67 degrees Fahrenheit with standard deviation of 5 degrees. What is the z-score for a temperature of 68 degrees?</p>