$\qquad$
$\qquad$

## Worksheet 6-8

Step 1: Find the mean $\bar{x}$
Step 2: Find the difference between the mean and each data value $(x-\bar{x})$
Step 3: Square each of the differences $(x-\bar{x})^{2}$
Step 4: Find the variance by adding all the $(x-\bar{x})^{2}$ and dividing by $n-1$.
Step 5: Find the standard deviation by taking the square root of the variance

1. Find the standard deviation for the following test scores. Use the table below to record the steps. (round all answers to the tenths place)

85, 100, 90, 96, 87, 94
A. Mean:
B.

| Data value (x) | 85 | 100 | 90 | 96 | 87 | 94 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $x-\bar{x}$ |  |  |  |  |  |  |
| $(x-\bar{x})^{2}$ |  |  |  |  |  |  |

C. n-1: $\qquad$
D. Variance: $\qquad$

## E. Standard deviation:

$\qquad$
$\qquad$
$\qquad$

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Step 1: Find the mean $\bar{x}$
Step 2: Find the difference between the mean and each data value $(x-\bar{x})$
Step 3: Square each of the differences $(x-\bar{x})^{2}$
Step 4: Find the variance by adding all the $(x-\bar{x})^{2}$ and dividing by $\mathrm{n}-1$.
Step 5: Find the standard deviation by taking the square root of the variance
2. Find the standard deviation for the following test scores. Use the table below to record the steps. (round all answers to the tenths place)

$$
20,34,86,92,56,84
$$

A. Mean: $\qquad$
B.

| Data value (x) | $\mathbf{2 0}$ | 34 | $\mathbf{8 6}$ | 92 | 56 | 84 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $x-\bar{x}$ |  |  |  |  |  |  |
| $(x-\bar{x})^{2}$ |  |  |  |  |  |  |

C. n-1: $\qquad$

## D. Variance:

$\qquad$
E. Standard deviation: $\qquad$

