Name: **Statistics**

Date: **Practice Quiz 2-B**

1. Find the following for the data set { 4, 5, 6, 8, 1, 18 }.

a) median

the middle number

b) $\sum x$

the sum of the numbers

c) $\bar{x}$

the average of the numbers

d) 20% trimmed mean

the average of most of the numbers

e) $\sum(x - \bar{x})$

the sum of each number minus the mean

f) $\sum(x - \bar{x})^2$

the sum of the square of each number minus the mean

2. Make a chart like in the classwork to find the sample coefficient of variation for the data set { 4, 6, 10, 12, 13 }. Show all work, and label each calculated value with the appropriate symbol.

x	$x - \bar{x}$	$(x - \bar{x})^2$
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

$\bar{x} =$ _____ $= 9$

$s^2 =$ _____ $= 15$

$s = \sqrt{\text{_____}} =$ _____

$\sum x =$ _____ $\sum(x - \bar{x})^2 =$ _____ sample CV $=$ _____ $=$ _____

3. Write the symbol representing the summation notation shown.

a) $\frac{\sum x}{n}$

b) $\sum(x - \mu)^2$

c) $\sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$

4. Melina weighs nine newborn kittens from different litters (in grams): 88, 109, 145, 140, 122, 113, 99, 109, 97.

a) What is the best estimate of the standard deviation of the weights of all newborn kittens?

This is using sample data to estimate the populatin standard deviation.

b) What is the standard deviation of these nine kittens' weights?

This is treating the nine kittens as if they are the whole population.

c) Which answer above (a or b) is the one that she actually cares about?