Lab 1

Direction: Submit the typed source code.

5-Point Statistics

For this lab, you will calculate and the display the mean, standard deviation, and z-scores of five (5) values. The formula are

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

$$\sigma = \sqrt{\sigma^2} \qquad Z = \frac{x_i - \mu}{\sigma}$$

where x_i are the values, μ is the mean, σ^2 is the variance, σ is the standard deviation, and Z is the z-score.
your group will have to complete the following code.

I.

Name:	`mean()`
Parameter(s):	*double*: `x` *double*: `y` *double*: `z` *double*: `w` *double*: `v`
Return:	double
Description:	returns the average of the parameters.

II.

Name:	`variance()`
Parameter(s):	*double*: `x` *double*: `y` *double*: `z` *double*: `w` *double*: `v`
Return:	double
Description:	returns the variance of the parameters.

III.

Name:	`zscores()`
Parameter(s):	*double reference*: `x` *double reference*: `y` *double reference*: `z` *double reference*: `w` *double reference*: `v`
Return:	nothing
Description:	converts the parameters to their corresponding z-scores.

IV.

Name:	`stats()`
Parameter(s):	*double*: `x` *double*: `y` *double*: `z` *double*: `w` *double*: `v`
Return:	string

Description:	returns a string of the format:
	`For values`
	`[`*x*`,`*y*`,`*z*`,`*w*`,`*v*`]`
	`Mean`
	mu
	`Standard Deviation`
	sigma
	`Z-scores`
	`[`*zsx*`,`*zsy*`,`*zsz*`,`*zsw*`,`*zsv*`]`

Task	Problem Set
A	{I, III}
B	{II, IV}