Class A Grades(hypothetical) **Practice Problem** 10/9/2003 16:57
Dr. A. A. Walsh

STD-DEV-PRACTICE2.xls

		X		**X-Mean**			**(X-Mean)^2**
		18		1.111			1.235
		13		-3.889			15.123
		11		-5.889			34.679
		11		-5.889			34.679
		15		-1.889			3.568
		32		15.111			228.346
		24		7.111			50.568
		16		-0.889			0.790
		12		-4.889			23.901
SUMS		152		0.000		Variation(SS)	392.889
MEAN		16.889			**A**	SamDesMS	43.654
COUNT		9			**B**	SamDesSTD	6.607
					C	Infer~MS	49.111
					D	Infer~STD	7.008

Definitional Formula, Descriptive Statistic, Sample Variance

A

$$S^2 = \frac{\sum(X-\overline{X})^2}{n}$$

Definitional Formula, Descriptive Statistic, Sample Standard Deviation

B

$$S = \sqrt{\frac{\sum(X-\overline{X})^2}{n}}$$

C

$$s^2 = \frac{\sum(X-\overline{X})^2}{n-1}$$

Definitional formula, Inferential Statistic, estimate of Population Variance from Sample Data.

D

$$s = \sqrt{\frac{\sum(X-\overline{X})^2}{n-1}}$$

Definitional formula, Inferential Statistic, estimate of Population Standard Deviation from Sample Data.