Class A Grades(hypothetical) Practice Problem ##############

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STD-DEV-PRACTICE5.xls

	X	X-Mean	(X-Mean)^2
	74	-4.333	18.778
	93	14.667	215.111
	86	7.667	58.778
	88	9.667	93.444
	92	13.667	186.778
	51	-27.333	747.111
	81	2.667	7.111
	69	-9.333	87.111
	97	18.667	348.444
	92	13.667	186.778
	48	-30.333	920.111
	69	-9.333	87.111

SUMS		940	0.000		Variation(SS)	2956.667
MEAN		78.333		A	SamDesMS	246.389
COUNT		12		B	SamDesSTD	15.697
				C	Infer~MS	268.788
				D	Infer~STD	16.395

Definitional Formula, Descriptive Statistic, Sample Variance

A

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

Definitional Formula, Descriptive Statistic, Sample Standard Deviation

B

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

C

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

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

D

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

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