

Table 3.4 Summary of Five Steps to Computing a Population's Standard Deviation

<i>Population Standard Deviation</i>			
<i>Step</i>	<i>Verbal Label</i>	<i>Symbolic Equivalent</i>	<i>Equation</i>
1	Deviation score		$(X - \mu)$
2	Square the deviation scores		$(X - \mu)^2$
3	Sum of squared deviation scores	SS	Definitional: $SS = \sum (X - \mu)^2$ Computational: $SS = \sum X^2 - \frac{(\sum X)^2}{N}$
4	Population variance	σ^2	$\sigma^2 = \frac{SS}{N}$
5	Population standard deviation	σ	$\sigma = \sqrt{\frac{SS}{N}}$