

STAT 308 - Handout #15

KEY FACT 8.1 When to use the z-interval procedure? (σ is known).

1. For small samples, say, of size less than 15, the z-interval procedure should be used only when the variable under consideration is normally dist'ed or very close to being so.
2. For moderate size samples, say, between 15 and 30, the z-interval procedure can be used unless the data is "very badly behaved".
3. For large samples, say, of size 30 or more, the z-interval procedure can be used essentially without restriction.

8.4 CI for one popul'n mean when σ is unknown

Example:

Measurements of the acidity (pH) of rain samples were recorded at 13 sites in an industrial region. The sample mean and standard deviation were 4.546 and 0.391 respectively.

- a. determine a 95% CI for the mean acidity of rain in that region.
- b. What assumption must be made in order to answer (a)?