QUICK HELP

MAT 109 Statistics

Confidence Interval for a Mean (σ unknown)

Purpose: To use a sample mean to estimate the range in which the population mean will fall.

Required Information:

$$a =$$
level of confidence
 $x =$ sample mean
 $n =$ sample size
d (degrees of freedom) = n -1
 $s =$ sample standard deviation
 $t_{\frac{1-a}{2}}(d) =$ t

Calculation of Bounds:

$$\bar{x} \pm t \frac{s}{\sqrt{n}}$$

* Add to obtain the upper bound on the confidence interval and subtract to obtain the lower bound on the confidence