2002 Multiple Choice #37 Homework Problem
Friday 05/01

37. A simple random sample produces a sample mean, $\bar{x}$, of 15. A 95 percent confidence interval for the corresponding population mean is 15 ± 3. Which of the following statements must be true?

(A) Ninety-five percent of the population measurements fall between 12 and 18.

(B) Ninety-five percent of the sample measurements fall between 12 and 18.

(C) If 100 samples were taken, 95 of the sample means would fall between 12 and 18.

(D) $P(12 \leq \bar{x} \leq 18) = 0.95$

(E) If $\mu = 19$, this $\bar{x}$ of 15 would be unlikely to occur.