Quiz 8 MATH 1550 Fall 2018

Find confidence interval for population mean μ when $\bar{x}=4.3$, $\sigma=0.34$, $n=14$, and given t-distribution critical value $t_c=2.650$.

Soln: Margin of error:

$$E = t_c \frac{\sigma}{\sqrt{n}}$$

$$= (2.650)\left(\frac{0.34}{\sqrt{14}}\right)$$

$$= 0.2408$$

$$\bar{x} - E = 4.3 - 0.2408 = 4.0592$$

$$\bar{x} + E = 4.3 + 0.2408 = 4.5408$$