Quiz Problem 6

Due Mar. 18th, 11:59 pm EST

Problem.

Let $x > 0$ and $\sigma^2 > 0$ be known constants. Assume $Y_n \overset{iid}{\sim} N(x\beta, \sigma^2)$ for and unknown β. Find the CRLB for β and use it to show that

$$\hat{\beta} = \bar{Y}/x$$

is the UMVUE.

$\square$