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Question 7.15 c and 7.42 b

Does anyone know how to go about either of these question? I don't quite understand what I am supposed to do with these question because we haven't done this in class yet but HW is due tomorrow so any help is highly appreciated.

hw3

Edit

undo good question | 1

Updated 5 years ago by Chloe Henderson

S

the students' answer, where students collectively construct a single answer

Actions ▾

For 7.15(c), the equation for the sample size is $n = \left(\frac{z_{score}}{\epsilon}\right)^2 (\sigma_1^2 + \sigma_2^2)$ (see note at bottom). The variable z_{score} is ~ 1.96 (derived from the .95 probability with a table of z-scores or a calculator) and ϵ is the error (in this case 1).

For 7.42(b), the formula for a confidence interval is $\bar{x} \pm z_{score} \frac{\sigma}{\sqrt{n}}$. The variable z_{score} is again ~ 1.96 because it is asking for a .95 probability.

After these steps, both problems are almost all plugging in variables and solving.

(note: this is derived via algebra from the fact that $\epsilon = z_{score} \sqrt{\frac{\sigma_1^2 + \sigma_2^2}{n}}$)

Edit

thanks! | 0

Updated 5 years ago by Charles Hwang

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