

Q3 (Ex 12 pg 399)

STAT 3093, Ass#4

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$$CI = \bar{X} \pm z_{\alpha/2} \frac{s}{\sqrt{n}}, \quad \bar{X} = 0.81 \quad \alpha = 0.01 \Rightarrow z_{\alpha/2} = -2.58$$
$$s = 0.34 \quad n = 110$$

$$0.81 - \frac{2.58(0.34)}{\sqrt{110}} = 0.61$$

$$0.81 + \frac{2.58(0.34)}{\sqrt{110}} = 1.01$$

The 99% CI (two-sided) is

$$\underline{(0.61, 1.01)}$$