

Question #8

a) If $n=60$ the sampling distribution of sample mean $\bar{x}$ is

$$\mu_{\bar{x}} = 9.8\% \text{ and } \sigma_{\bar{x}} = \frac{\sigma}{\sqrt{n}} = \frac{15}{\sqrt{60}} = 1.9365$$

$$b) P(\bar{x} < 10.2) = P\left(z < \left(\frac{10.2 - 9.8}{1.9365}\right)\right)$$

$$= P(Z < 0.21)$$

$$= \underline{\underline{0.5818}}$$