Quiz 9: Friday, November 12, 2004

*Use notation properly.*

Let $X$ be the continuous random variable representing the height, in inches, of an American woman aged 18 to 30 years. Then \( \mu_X = 65.5 \) and \( \sigma_X = 2.5 \).

Let $\bar{x}$ be the random variable representing the sample mean for random samples of size 10 from the population of American women aged 18 to 30 years.

Evaluate each of the following, showing your reasoning.

1. $\mu_{\bar{x}}$

2. $V(\bar{x})$

3. $\sigma_{\bar{x}}$