

$$ES = E(X_1) + \cdots + E(X_{100}) = 100EX_1 = 550,$$

$$\text{var}(S) = \text{var}(X_1) + \cdots + \text{var}(X_{100}) = 100\text{var}(X_1) = 825,$$

$$E\bar{X} = E\left(\frac{S}{100}\right) = \frac{ES}{100} = 5.5,$$

$$\text{var}(\bar{X}) = \text{var}\left(\frac{S}{100}\right) = \frac{\text{var}(S)}{100^2} = 0.0825.$$