

Homework Solutions

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Exercise 18

- (a) The population is normal, so \bar{x} is normal even though $n = 9$ is a small sample. The mean of \bar{x} is 69 and the standard deviation is $\frac{2.5}{\sqrt{9}} = 0.8333$.
- (b) The distribution of \bar{x} is normal with mean 69 and standard deviation $\frac{2.5}{\sqrt{100}} = 0.25$.
- (c) In the second case, the standard deviation is much smaller. That is the only difference.