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## Congratulations! You passed!

The standard deviation of a sample statistic

A standard error is the standard deviation of a sample statistic.

✓ Correct

Grade received 100% To pass 80% or higher

1. A data professional is analyzing data about a population of aspen trees. They take repeated random samples of 10 1/1 point trees from the population and compute the mean height for each sample. Which of the following statements best describes the sampling distribution of the mean?  $\bigcirc \hspace{0.1in} \textbf{The probability distribution of all the sample means} \\$ O The sampling distribution of the mean is the sum of all the sample means. O The sampling distribution of the mean is the maximum value of all the sample means. O The average value of all the sample means. **⊘** Correct The sampling distribution of the mean is the probability distribution of all the sample means. A probability distribution represents the possible outcomes of a random variable. 2. The central limit theorem implies which of the following statements? Select all that apply. 1/1 point If you take a large enough sample of the population, the sample mean will be roughly equal to the population mean. **⊘** Correct The central limit theorem states that the sampling distribution of the mean approaches a normal  $distribution\ as\ the\ sample\ size\ increases.\ If\ a\ large\ enough\ sample\ of\ the\ population\ is\ taken,\ the\ sample$ mean will be roughly equal to the population mean. The sampling distribution of the mean approaches a normal distribution as the sample size increases. The central limit theorem states that the sampling distribution of the mean approaches a normal distribution as the sample size increases. If a large enough sample of the population is taken, the sample mean will be roughly equal to the population mean. ☐ The sampling distribution of the mean approaches a normal distribution as the sample size decreases. If you take a small enough sample of the population, the sample mean will be roughly equal to the population mean. 3. What is a standard error? 1/1 point An estimate of a population parameter O The probability distribution of a sample statistic A list of all the items in the target population.