3.3 review

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Provide an appropriate response.

1) Where should the bootstrap distribution be centered? 1) _____

A) The standard error
B) The sample statistic
C) The bootstrap statistic
D) The population parameter

2) What value should be recorded for each bootstrap sample? 2) _____

A) The bootstrap statistic
B) The number of samples
C) The population parameter
D) The population statistic

3) How do you estimate the standard error from the bootstrap distribution? 3) _____

A) Cannot determine the standard error
B) Use the standard deviation from the bootstrap distribution
C) Use the standard deviation from the sample
D) Use the population standard deviation

Identify whether each of the following samples in the next three problems are possible bootstrap samples from this original sample: 84, 70, 79, 91, 87.

4) 79, 87, 70, 84, 79, 91 4) _____

A) Possible
B) Not Possible

5) 87, 84, 79, 70,79 5) _____

A) Not Possible
B) Possible

6) 79, 87, 91, 84, 69 6) _____

A) Possible
B) Not Possible

Use the bootstrap distributions in Figure 1 to estimate the value of the sample statistic and standard error, and then use this information to give a 95% confidence interval. In addition, give notation for the parameter being estimated.
The bootstrap distribution in Figure 1, generated for a sample correlation

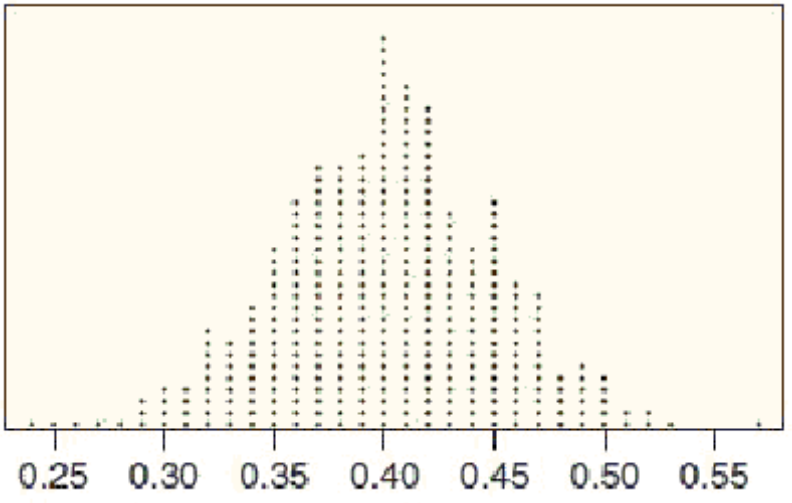

Figure 1 Bootstrap distribution

Answer the following questions

7) What does one dot on the bootstrap distribution represent? 7) _____

A) Parameter B) bootstrap Statistic C) sample Statistic

8) What shape do you expect thebootstrap distribution to have? 8) _____

A) skew to right
B) Symmetric and bell shaped
C) Skew to left

9) Where should the bootstrap distribution be centered? 9) _____

A) The population parameter B) The bootstrap statistic
C) The standard error D) The sample statistic

10) Estimate the sample statistic from the dot plot 10) _____

A) 0.45 B) 0.35 C) 0.40

11) Estimate the standard error of the bootstrap distribution 11) _____

A) 0.10 B) 0.05 C) 0.40

12) Give the 95% confidence interval. 12) _____

A) 0.35 to 0.50 B) 0.35 to 0.45 C) 0.25 to 0.55 D) 0.30 to 0.50