3.4 review

Name_____

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

Select the most appropriate answer.

1) Percentiles of the bootstrap distribution are provided. Use the percentiles to report a 95% confidence interval for the parameter. 1) _____

1%	2.5%	5%	10%	90%	95%	97.5%	99%
6.174	6.322	6.438	6.593	7.78	7.947	8.082	8.230

A) 6.438 to 7.947 B) 6.322 to 8.082 C) 6.593 to 7.78 D) 6.174 to 8.230

2) Percentiles of the bootstrap distribution are provided. Use the percentiles to report a 80% confidence interval for the parameter. 2) _____

1%	2.5%	5%	10%	90%	95%	97.5%	99%
6.174	6.322	6.438	6.593	7.78	7.947	8.082	8.230

A) 6.174 to 8.230 B) 6.438 to 7.947 C) 6.322 to 8.082 D) 6.593 to 7.78

Suppose that a 95% confidence interval for the slope of a regression line based on a sample of size $n = 100$ and the percentiles of the slopes for 1,000 bootstrap samples goes from 2.50 to 2.80. For each change described (with all else staying the same), indicate which of the three confidence intervals would be the most likely result

3) Decrease the sample size to $n = 40$ 3) _____

A) 2.46 to 2.84 (wider) B) 2.50 to 2.80 (the same) C) 2.53 to 2.77 (narrower)

4) Increase the confidence level to 99% 4) _____

A) 2.53 to 2.77 (narrower) B) 2.50 to 2.80 (the same) C) 2.46 to 2.84 (wider))

5) Decrease the confidence level to 90% 5) _____

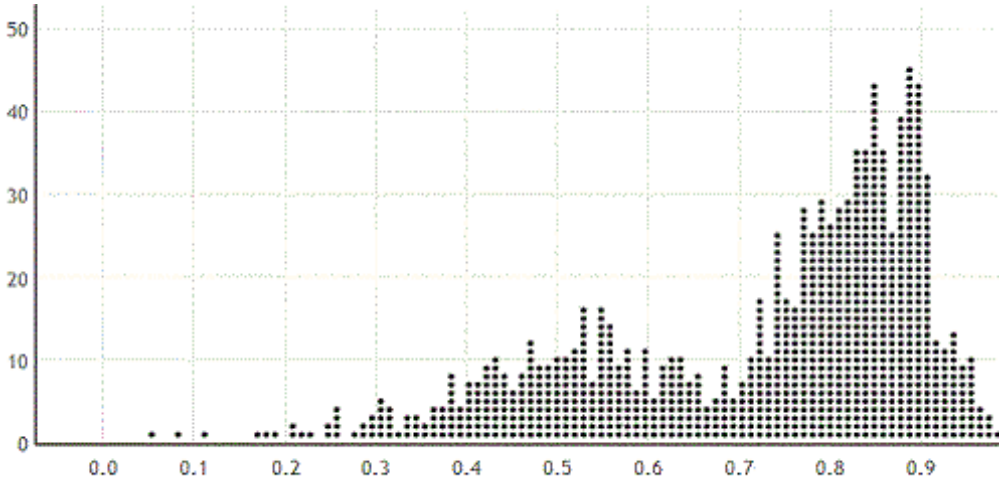
A) 2.50 to 2.80 (the same) B) 2.53 to 2.77 (narrower) C) 2.46 to 2.84 (wider)

6) Increase the number of bootstrap samples to 4,000 6) _____

A) 2.50 to 2.80 (the same) B) 2.53 to 2.77 (narrower) C) 2.46 to 2.84 (wider)

Provide an appropriate response.

7) A bootstrap distribution for the correlation between body mass and length (based on 1,000 samples) is provided. Would it be appropriate to use this bootstrap distribution to estimate a 95% confidence interval for the correlation between body mass and length of porcupines? 7) _____



A) Yes B) No