

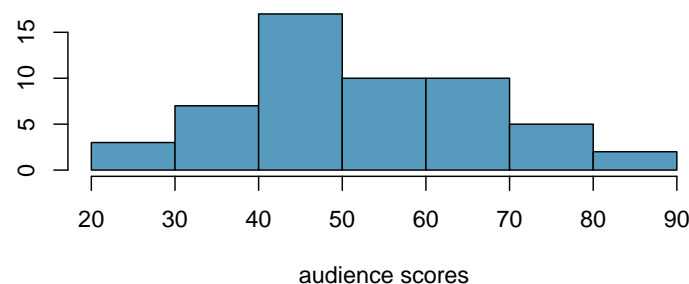
Application exercise 4.2: Estimating average movie ratings

Team name: _____

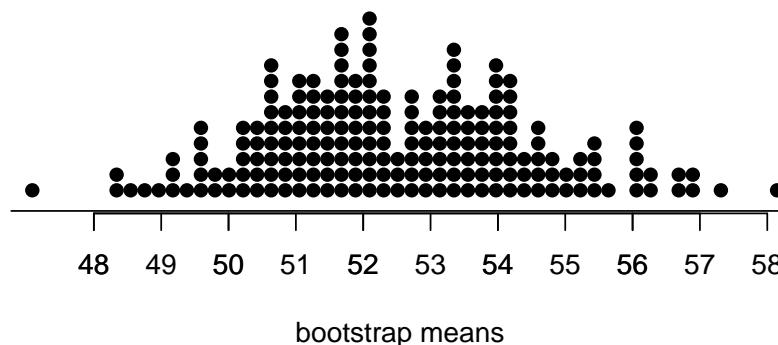
Lab section: 8:30 10:05 11:45 1:25 3:05 4:40

Write your responses in the spaces provided below. WRITE LEGIBLY and SHOW ALL WORK! Only one submission per team is required. One team will be randomly selected and their responses will be discussed and graded. Concise and coherent are best!

The following histogram shows the distribution of RottenTomatoes scores of a random sample of 54 comedies. The average score is 52.52 (out of 100).



The dot plot below shows the distribution of 200 bootstrap means calculated based on this sample. The bootstrap standard error is 1.98.



1. Describe in detail how this bootstrap distribution is constructed, outlining each step.

2. Construct a 95% bootstrap interval for the average RottenTomatoes score of comedies, using both methods and interpret them.
3. Describe the differences and similarities between bootstrap and sampling distributions.