

Question 1. Simulate a sample of 10 movies drawn at random with replacement from the 200 movies. Outputs True if Paramount appears more often than Warner Brothers among studios that released the sampled movies, and False otherwise. **(4 points)**

Example Answer: (i) studios_of_all_movies, (iii) top, (v)

Note: Do not explain your answer for any of the options you've chosen; please follow the structure of the example answer provided.

Type your answer here, replacing this text.

SOLUTION: (i) top, (ii) studios_of_all_movies, (iii) studio_proportions_only

Question 2. Simulate a sample of 10 movies drawn at random with replacement from the 200 movies. Outputs True if the first sampled movie was released by the same studio as the last sampled movie. (4 points)

Example Answer: (i) studios_of_all_movies, (iii) top, (v)

Note: Do not explain your answer for any of the options you've chosen; please follow the structure of the example answer provided.

Type your answer here, replacing this text.

SOLUTION: (i) top, (ii) studios_of_all_movies, (vi)

Question 5. Given your observed value, do you believe that Jade's model is reasonable, or is our alternative (that our deck is rigged) more likely? Explain your answer using the histogram produced above. **(5 Points)**

Type your answer here, replacing this text.

SOLUTION:

No; given Jade's model, drawing 8 or more face cards happens around 2% of the time under simulation. This points us to think that our alternative, that the probability of drawing a face card is more than $4/13$, is more likely.

