

## HW 05 Written Work

● Graded

Student

Sangwon Ji

Total Points

5 / 10 pts

Question 1

4.1

1 / 3 pts

✓ + 1 pt Correctly choosing `top` with (i)

+ 1 pt Correctly choosing `studios_of_all_movies` with (ii)

+ 1 pt Correctly choosing `studio_proportions_only` with (iii)

+ 0 pts Blank or Incorrect

Question 2

4.2

2 / 3 pts

✓ + 1 pt Correctly using `top` with (i)

+ 1 pt Correctly choosing `studios_of_all_movies` with (ii)

✓ + 1 pt Correctly choosing (vi)

+ 0 pts Blank or Incorrect

Question 3

5.5

2 / 4 pts

✓ + 2 pts Correct Answer: The alternative is more likely

+ 2 pts Correct analysis of histogram (seeing Jade's result in the far tail end)

+ 0 pts Blank or Incorrect

**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. **(3 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.

(i) top, (v), (vi)



**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. **(3 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.

(i) top, (ii) top, (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. **(4 Points)**

I don't think that Jade's model is reasonable and the alternative idea is more likely. The graph seems to have a spiked number around 3 to 6, numbers centralized. Therefore the chance of getting numbers are not equal, making Jade with more chance of winning.

