

Names of Group Members:

In Class Activity - Review - Submission

After you are done answering the questions in your groups. Write combined solutions to this sheet. Note that will **not** receive points merely by writing down the answer. Show your work. If you have used R to solve these questions then make sure to write down your R code and the output you received from R.

Q1. Is the function on the handout a pdf? Why/not?

Q2. a. A lottery game requires players to guess six numbers from 1 to 49. If a player guessed all the six numbers then they win the lottery of the week. What is the probability that a player will win the lottery?

b. What is the expected number of weeks until the first win for a player?

c. What is the variance?

Q3. A customer service agent receives on average 2 calls every 5 minutes.

- a. What is the probability that they will receive 0 calls in the next 5 minutes?

- b. What is the probability that they will receive more than 2 calls in the next 5 minutes?