

[1.1] Discuss Demand [5 pts]

[1.1] Model demand as a Poisson process that depends on both area and time. [5 pts]

[1.1] Poisson processes can be split into subprocesses [5 pts]

[1.2] Include in your submission the map with the areas divided into cells to form a grid. [8 pts]

[1.2] Number the cells in your grid as 1,2,...etc. [2 pts]

[1.2] Give the time and hours when observations were made. [5 pts]

[1.3] Provide grid table indicating how many scooters you saw in each grid. In one column, the grid number, in the other the number of scooters. [5 pts]

[1.3] Could this have been a uniform random scatter? [2 pts]
Could you proceed as if this could be a Poisson process? [3 pts]

[1.3] draw distribution with well labeled axes [5 pts]

[1.4] Provide table that tallies the number of scooters seen per cell in one column, and how many cells had that number of scooters. [5 pts]

[1.4] Plot a distribution that has on the horizontal axis the number of scooters observed per cell and the vertical axis has the proportion of cells with that number of scooters. [5 pts]

[1.4] Use chi-square goodness of fit test.

[1.4] Show lambda [1 pts]

[1.4] Show theoretical probabilities [1 pts]

[1.4] Show expected number and $(O-E)^2 / E$ [1 pts]

[1.4] Show Chi-square statistic = $\sum((O-E)^2 / E)$ [1 pts]

[1.4] State conclusion [1 pts]

[1.5] Discuss whether you modeled the random supply or the random demand of scooters with this experiment. [3 pts]

[1.5] Relate what you find to the article [3 pts]

[1.5] Add the pros and cons of this experiment. [3 pts]

[1.5] How you could improve it. [3 pts]

[1.5] What variables would you include to explain lambda at UCLA? [3 pts]

[1.6] Discuss what these authors' experiment has in common with your group's experiment. [5 pts]

[1.6] Provide an example for each member of the group where you think your brain was using a probability distribution. [3 pts for each]