

1. Choose a place where "customers" arrive relatively frequently. Examples:
 - Cars arriving at a traffic light
 - Students entering the University library
 - Customers arriving at a shop (Please do not be a nuisance!)
2. Measure the inter-arrival times of the customers. Hints:
 - You should gather at least 50 measurements.
 - Make sure that the arrival rate of customers is fairly constant.
 - Do not choose a location where customers arrive in groups (for example students arriving at the Mensa after a lecture or entering a building for a lecture or cars arriving after a traffic light turns green.)

Answer the following questions:

1. Draw a histogram of the inter-arrival times you measured.
2. Guess the type of distribution of these times from the histogram.
3. Draw a quantile-quantile plot to test your guess.
4. Determine values for the parameters of the distribution function.
5. Use the chi-square test to confirm (or reject) the validity of the distribution function.