**Question 1: 5 points**

1. Download data from https://data.world/fivethirtyeight/hate-crimes. Then read the CSV file original/hate\_crimes.csv in to a data frame.
2. Create a new column 'non\_white\_white\_poverty\_ratio' by finding  
   the ratio between the columns: 'share\_non\_white' and 'share\_white\_poverty'
3. Draw a scatter plot between 'share\_population\_in\_metro\_areas' on the x-axis and 'non\_white\_white\_poverty\_ratio' on the y-axis.
4. Draw a scatter plot between 'median\_household\_income' on the x-axis and 'non\_white\_white\_poverty\_ratio' on the y-axis.
5. Read about Pearson correlation coefficient and then find the correlation between the columns: 'share\_population\_in\_metro\_areas', 'median\_household\_income', and 'non\_white\_white\_poverty\_ratio'

**Question 2: 5 points**

**Calculating the value of pi using the monte carlo method.**

Read the document in the link: https://academo.org/demos/estimating-pi-monte-carlo/ and calculate the value of pi.