1. Security guard Hasini has a log book of the CMI-Shuttle. In the log book she keeps track of the kilometer reading before each time driver Sakshi fills petrol. The last 10 readings are:

   65311, 65624, 65908, 66219, 66499, 66821, 67145, 67447, 67786, 68103

   (a) Enter these numbers into R as a variable `kreading`. Use the function `diff` on the data. What does it give?

   ```
   > kreading = c(65311, 65624, 65908, 66219, 66499, 66821, 67145, 67447)
   > differences = diff(kreading)
   ```

   Write down,x, the number of kilometers between each time Sakshi fills up pertrol.

   (b) Use the `max` to find the maximum number of kilometers, the `mean` function to find the average number of kilometers and the `min` to get the minimum number of kilometers Sakshi has driven between two fill-ups.

2. Super Mani's quiz scores in Data science are given below

   7, 6, 10, 8, 7, 9, 9, 6, 4, 10, 8, 6, 9, 10

   (a) Enter this into R as a variable `scoreMani`. Use the function `max` to find the highest score, the function `mean` to find the average and the function `min` to find the minimum.

   (b) When confronted by Looser Siva, Mani realises that entry 4 was a mistake. It should have been 5. How can you fix this? Do so, and then find the new average.

   (c) What does the below command provide in R ?

   ```
   > sum( scoreMani >= 9)
   ```

   (d) What do you get? What percent of your scores are less than 17 ? How can you answer this with R?

3. Naina's cell phone bill varies from month to month. Suppose in her first year of Super DATA (hons.) program, under the Drop-atmost 10-calls monthly plan, the following monthly amounts were incurred:

   460, 330, 390, 370, 460, 300, 480, 320, 490, 350, 300, 480

   (a) Enter this data into a variable called `Nainabill`. Use the `sum` command to find the amount spent by Naina that year on the cell phone.

   (b) Using R find out what is the smallest amount she spent in a month and the largest amount she spent in a month ?

   (c) How many months was the amount greater than Rs 400? What percentage was this?

   (d) If her monthly loan from NOmoney Bank was Rs 3000. Using R store her balance(after paying her phone bill) in a variable called `freemoney`. Find the average amount available each month for her other expenses.