**Exercise 2**

In the racing car X, the relationship between the engine’s Revolutions Per Minute (RPM) and its Power (hp) is given in the following table:

|  |  |  |
| --- | --- | --- |
|  | **RPM** | **Power**  **(hp)** |
| 1 | 1000 | 48 |
| 2 | 2000 | 200 |
| 3 | 3000 | 289 |
| 4 | 4000 | 451 |
| 5 | 5000 | 589 |
| 6 | 6000 | 609 |
| 7 | 7000 | 598 |
| 8 | 8000 | 572 |

a. Sketch using Graph Paper the RPM vs. Power (hp) Scatterplot and comment on the result.

b. Calculate the Correlation coefficient between RPM and Power for the above data set. Provide the analytic solution and comment on the result.

c. Sketch the Scatterplot and calculate the Correlation coefficient for questions 1a. and 1b. above using Matlab and compare the results.