ME644: Machine learning for engineers

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Due on or before: 25.08.2024

The quench bath temperature, during heat treatment, affects the Rockwell hardness of certain spring, as shown below:

Test	Temperature (°C)	Hardness
1	30	55.8
2	30	59.1
3	30	54.8
4	30	54.6
5	40	43.1
6	40	42.2
7	40	45.2
8	50	31.6
9	50	30.9
10	50	30.8
11	60	17.5
12	60	20.5
13	60	17.2
14	60	16.9

Write a computer program (preferably in python) to compute and plot a linear hypothesis over the above data. Also find the coefficient of determination.