

Course Name: STA-201

Assignment 2

Question:1

Price	Demand
Your Id (last 3 digit)	20
Id + 2	21
Id + 3	22
Id + 6	24
Id + 5	26
Id + 3	27
Id + 7	25
Id + 8	25
Id + 6	29
Id + 9	30
Id + 10	32
Id + 12	33
Id + 10	33
Id + 13	34
Id + 10	35
Id + 11	37

- Draw a scatter diagram and explain.
- Calculate Pearson's correlation coefficient and explain.
- Fit a regression line when – i) Demand depends on price ii) Price depends on Demand
- Let us consider, $R^2 = .65$ (Demand on price)
 $R^2 = .75$ (Price on Demand) Explain.
- Estimate the demand for the price of 72.
- Estimate the price for the demand of 52.

Question: 2

We have regressed mpg (miles per gallon) of cars of different companies over weight and qsec (The vehicle's quarter-mile race time).

Here is the result:

Coefficients:

(Intercept)	weight	qsec
30.290	-4.783	1.442

$R^2 = .67$

Write down the regression line and interpret the result.