

EXERCISE SIMPLE LINEAR REGRESSION

Given the data in the following table,

Online Store	Advertising Dollars	Monthly Sales
1	1.7	368
2	1.5	340
3	2.8	665
4	5.0	954
5	1.3	331
6	2.2	556
7	1.3	376
8	1.9	412
9	4.5	846
10	2.0	392
11	3.4	603
12	2.9	355
13	3.8	538
14	4.6	709
15	3.9	461

Calculate:

- b_0 and b_1 values of the regression line,
- estimated values for the monthly sales,
- residual errors,
- Pearson's correlation coefficient,
- R^2 , and
- MSE.

Represent the regression plot and the residual plot.

How can we interpret the regression line?