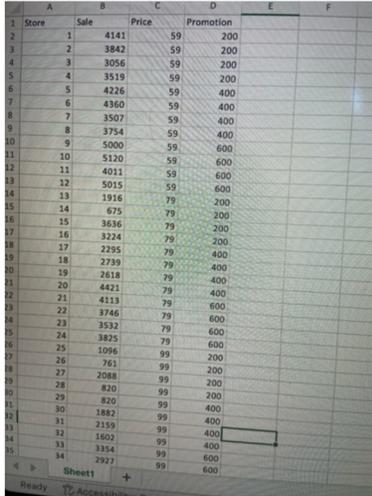


## Module Assignment 5

### 1- Screenshot



Store	Sale	Price	Promotion
1	4141	59	200
2	3842	59	200
3	3056	59	200
4	3519	59	200
5	4226	59	400
6	4360	59	400
7	3507	59	400
8	3754	59	400
9	5000	59	600
10	5120	59	600
11	4011	59	600
12	5015	59	600
13	1916	79	200
14	675	79	200
15	3636	79	200
16	3224	79	200
17	2295	79	400
18	2739	79	400
19	2618	79	400
20	4421	79	400
21	4113	79	400
22	3746	79	600
23	3532	79	600
24	3823	79	600
25	1096	99	200
26	761	99	200
27	2088	99	200
28	820	99	200
29	820	99	400
30	1882	99	400
31	2159	99	400
32	1602	99	400
33	1354	99	400
34	2927	99	600

2- Independent variables would be the price and promotion. While the dependent variable would be sales.

### 3- Screenshot

4- The R-Squared value,  $r\text{-sq}=0.7580$ , 75.8%. that's the percentage of change in sales goes with the price and promotion.

5- P-valued for the overall model would be,  $p=2.81998\text{E}-10$ . Also 0.0, which means the model has the predictive power, as a result it is significant.

6- The prices and promotion are both significant which its variable have a effect on the sales.

7- Predicted Sales=  $-52.63(\text{price})+3.62(\text{promotion})=5783.46$

8- Predicted Sales=  $-52.63(59) + 3.62(400) + 5783= 4216.29$

9- Yes, it is a good regression equation for these annual sales. Because the model is significant with the p-value as well as the independent variables.