R STUDIO – EXERCISE 4

QUESTION 1

Find the Karl-Pearson's coefficient of Correlation between X and Y for

X=23,27,28,28,29,30,31,33,35,36 y=18,20,22,27,21,29,27,29,28,29

```
> x=c(23,27,28,28,29,30,31,33,35,36)
> y=c(18,20,22,27,21,29,27,29,28,29)
> cor(x,y)
[1] 0.8176052
```

QUESTION 2

Twelve recruits were subjected to selection test to ascertain their suitability for a certain course of training. At the end of training they were given a proficiency test. The marks scored by the recruits are recorded below:

Recruit	1	2	3	4	5	6	7	8	9	10	11	12
Selection Test Score	44	49	52	54	47	76	65	60	63	58	50	67
Proficiency Test Scrore	48	55	45	60	43	80	58	50	77	46	47	65

Fit a simple regression model of Proficiency test on selection test score.

```
> x=c(44,49,52,54,47,76,65,60,63,58,50,67)
> y=c(48,55,45,60,43,80,58,50,77,46,47,65)
> cor(x,y)
[1] 0.7804552
> lm(y~x)

Call:
lm(formula = y ~ x)

Coefficients:
(Intercept)            x
     -2.126        1.021
```