a)



b)

From the scatterplot (a) we seen that there isa strong negative linear relationship between the class size (x)

And the achievement score (Y),because all points are somewhere scattered in downhill direction in a narrow band i.e.

There is a negative linear correlation (relationship) between x & y.

c)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Class Size ,X | Score,Y | X^2 | Y^2 | XY |
|  | 15 | 85 | 225 | 7225 | 1275 |
|  | 17 | 86 | 289 | 7396 | 1462 |
|  | 18 | 84 | 324 | 7056 | 1512 |
|  | 20 | 82 | 400 | 6724 | 1640 |
|  | 21 | 80 | 441 | 6400 | 1680 |
|  | 24 | 78 | 576 | 6084 | 1872 |
|  | 26 | 75 | 676 | 5625 | 1950 |
|  | 29 | 71 | 841 | 5041 | 2059 |
|  | 10 | 92 | 100 | 8464 | 920 |
|  | 12 | 88 | 144 | 7744 | 1056 |
|  | 30 | 65 | 900 | 4225 | 1950 |
|  | 25 | 76 | 625 | 5776 | 1900 |
|  | 16 | 88 | 256 | 7744 | 1408 |
|  | 14 | 89 | 196 | 7921 | 1246 |
|  | 19 | 82 | 361 | 6724 | 1558 |
| Total | 296 | 1221 | 6354 | 100149 | 23488 |

x=scan("clipboard")

y=scan("clipboard")

plot(x,y,main="Scatterplot",xlab="Class size",ylab="Achievement score")