

LAB QUESTION B

Team ASIC

Q7. The following shows the number of police officers on patrol vs. # of crimes reported in the city of Duluth in the last 10 days.

Day	officers	crime	Day	officers	crime
1	10	5	6	6	8
2	15	2	7	18	1
3	16	1	8	12	5
4	1	9	9	14	3
5	4	7	10	7	6

- Obtain the linear regression model, where the number of officers is independent variable, and the crime is dependent.
- How many crimes are predicted if 30 officers are to patrol?

#1.

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9990 error = 0.451 W = -0.493 b = 9.780
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9999 error = 0.451 W = -0.493 b = 9.780

officers = 30 crime = -5.015

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<Result>

A. In linear regression, relation between x and y can describes like this equation.

$$= x + b$$

So, when the independent variable officers equal 30, predicted dependent variable crime is around 1 or 0. But, tensorflow program compute its result as -5.015. The value of error is not reduced to 0.0 everytime when I test. So, W and b value cannot compute to suitable number. I cannot understand why did the program derived that result, and I don't know how can I fix it. I've search it on google. But there's no suitable answer for my problem.

I have to ask professor about it.