Homework 3

Question 1

1.

a)

We can’t draw the conclusion from just one observation, or we could but we could not be very sure that this was the cause. It could for example very well been that group A were more experienced with this problem.

b)

We want the students to be as closely matched in terms of experience so we could maybe choose them based on earlier grades. We want to do more than one test to make sure that it wasn’t chance that made this result happened.

2.

a)

No, we can’t because it’s not sure that the programming language was the cause. We don’t know this with similar reasoning to question 1.

b)

The code from group C could have been implemented in a much worse way in terms of time. To fix this the code would need to be as optimized as possible for both programs. Also, more than one trial would be good. It is also important that the programs are executed on equally performing hardware.

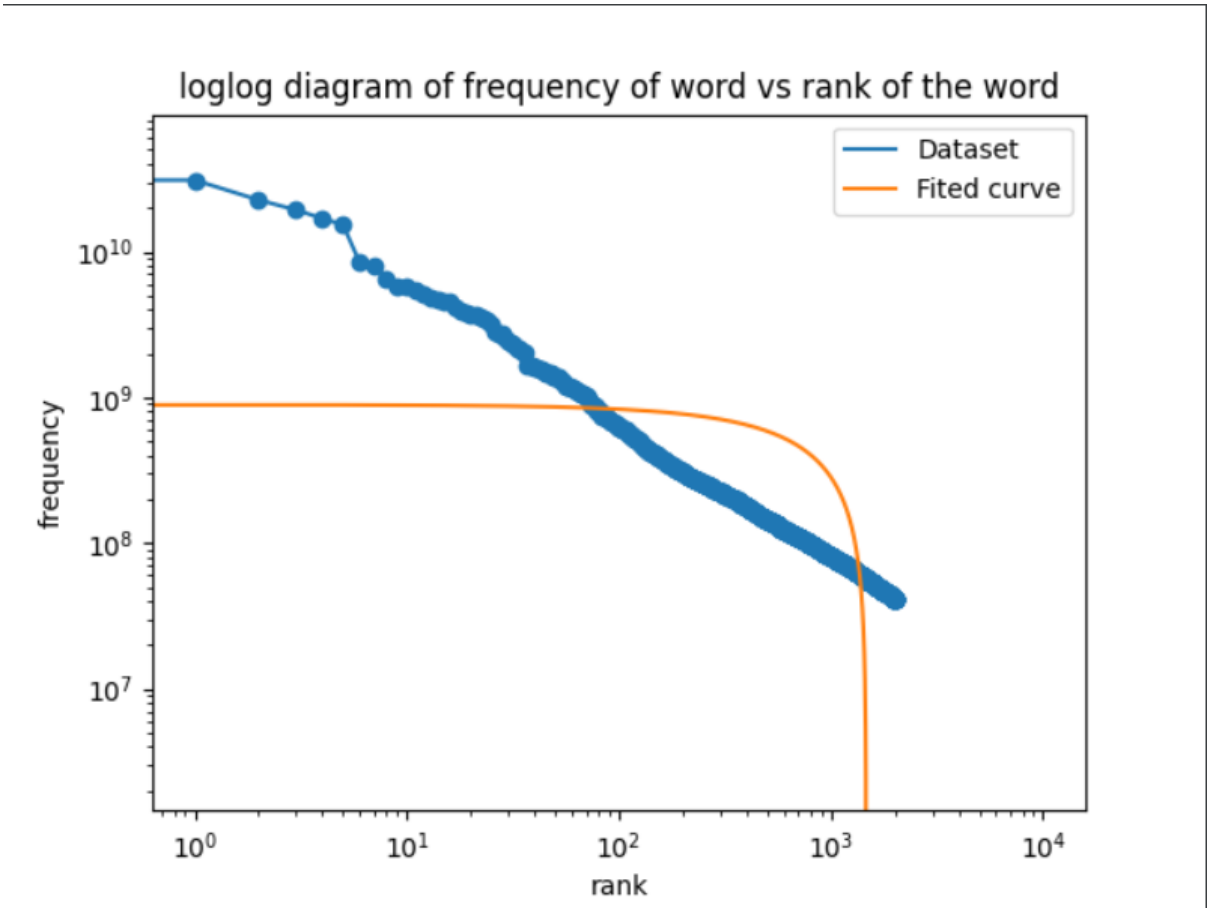
Question 2

a)

I used Peter Norvig’s frequencies of words¨

b)

c)



I expected the curve to actually fit the dataset curve, I must have made some mistake but didn't find it. But if the curve actually fit I would guess that the law is true for at least some cases.

D)

I would say that it's a conjecture because it relies on the data set not having to many dispersed data points, so depending on the data the accuracy will probably differ.