Assignment 4.3

Problem Statement 1:
In a class on 100 students, 80 students passed in all subjects, 10 failed in one subject, 7 failed in two subjects and 3 failed in three subjects. Find the probability distribution of the variable for number of subjects a student from the given class has failed in.

Note: Solution submitted via github must contain all the detailed steps.

Solution

No of Subject	Students Failed
0	80
1	10
2	7
3	3

For a random student;

The probability of failing in 0 subjects, P(X=0) = 80/100 = 0.8

The probability of failing in 1 subjects, P(X=1) = 10/100 = 0.1

The probability of failing in 2 subjects, P(X=2) = 7/100 = 0.07

The probability of failing in 3 subjects, P(X=3) = 3/100 = 0.03

Probability distribution is mentioned in below tables for given data

No of Subject (X)	Probability P(X)
0	0.8
1	0.1
2	0.07
3	0.03