

Problem Statement

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.

Solution

For a random student

The probability of failing in 0 subjects is = 0.8

The probability of failing in 1 subjects is = 0.10

The probability of failing in 2 subjects is = 0.07

The probability of failing in 3 subjects is = 0.03

The probability distribution of the variable for no of subjects a student from the given class has failed in is given in below table

X	0	1	2	3
P(X)	0.8	0.1	0.07	0.03