**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.

**Solution:**

Total number of students: 100

Number of passed: 80

Probability of number of students not failing in any subject is

P(0) = 80/100 = 0.8

Probability of number of students failing in 1 subject is

P(1) = 10/100 = 0.1

Probability of number of students failing in 2 subjects is

P(2) = 7/100 = 0.07

Probability of number of students failing in 3 subjects in

P(3) = 3/100 = 0.03

The total probability is summed up to 100% = 0.8 + 0.1 + 0.07 + 0.03 = 1