Statistics assignment 1

3.

For a random student,  in a class of 100 students  
  
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  
  
The probability distribution can be shown as:

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