For a random student,   
  
The probability of failing in 0 subjects, P(X=0) = 0.8  
  
The probability of failing in 1 subjects, P(X=1) = 0.1  
  
The probability of failing in 2 subjects, P(X=2) = 0.07  
  
The probability of failing in 3 subjects, P(X=3) = 0.03  
  
The probability distribution can be shown as:

X 0 1 2 3

P(X) 0.8 0.1 0.07 0.03