Binomial distribution – probability mass function

A student has decided to use the train 10 times without buying a ticket. The probability to get caught is estimated to 0.05 for each trip. Let random variable X = number of times the student gets caught.

Find the probability for the student to get caught exactly 2 times.

Solution:

Probability of getting caught: p = 0.05

Number of trips: n=10

The probability of getting caught exactly 2 times is 7.5%.