**Problem Statement:17.2**

A die marked A to E is rolled 50 times. Find the probability of getting a “D” exactly 5

times.

Note: Solution submitted via github must contain all the detailed steps.

**Solution**

Here, n = 50, k = 5, n - k = 45.

The probability of success = probability of getting a “D”= s =1/5

Hence, the probability of failure = probability of not getting a “D” = 1 - s = 1-(1/5) =4/5

P (‘k’ successes in ‘n’ trials) = C(n,k)s^k(1−s)^(n−k)

P(‘5’ successes in 50 trials)= 0.0295312