datascience_assignment_17.2

July 18, 2018

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

0.2 Solution Steps:

- Import scipy
- Number of times dice is rolled, n
- Define probability (p) of getting D
- Define Binomial Distribution by calling binom method of scipy
- Define Number of times "D" is expected
- Get probability by calling pmf method on hh and by passing Number of times "D" is expected
- Print probability

```
In [3]: import scipy.stats as ss
        # Number of times dice is rolled
        n = 50

        # Define probability (p) of getting D
        p = 1./5

        # Define Binomial Distribution by calling binom method of scipy
        hh = ss.binom(n, p)

        # Number of times "D" is expected
        no_times_d_expected = 5

        # Get probability by calling pmf method on hh and by passing
        # Number of failed answers as input
        probability = hh.pmf(no_times_d_expected)

        # Print the probability
        print("probability of 'D' exactly 5 times = " + str(probability))

probability of 'D' exactly 5 times = 0.029531204310523224
```