

ASSIGNMENT 1

CS21BTECH11053

Abstract—From ICSE 2018 Class 12 Mathematics Examination

Problem (15.11). *Eleven bags of wheat flour, each marked 5 kg, actually contained the following weights of flour (in kg):*

S No	1	2	3	4	5	6	7	8	9	10	11
Weight	4.975	5.055	5.085	5.035	5.005	5.065	5.084	4.985	5.045	5.075	5.00

TABLE I

WEIGHTS OF BAGS

Solution:

We will define random variable X such that $X \in \mathbb{R}$ and X represents the weight of the bag.

We are required to find the probability when random variable exercise $X > 5$. Note that the number of bags with $X > 5$ is given by

$$n(X > 5) = 7 \quad (1)$$

The sample space S consists of 11 bags. Hence

$$n(S) = 11 \quad (2)$$

Hence the probability where $X > 5$ from (1) and (2) is given by

$$P(X > 5) = \frac{n(X > 5)}{n(S)} \quad (3)$$

$$= \frac{7}{11} \quad (4)$$

$$= 0.636 \quad (5)$$