

Assignment I (ICSE Class 10 2019)

Kola Akshitha

5 a) There are 25 discs numbered 1 to 25. They are put in a closed box and shaken thoroughly. A disc is drawn at random from the box. Find the probability that the number on the disc is:

- (i) an odd number
- (ii) divisible by 2 and 3 both.
- (iii) a number less than 16.

Solution:

Probability of event $Pr(E) = \frac{n(E)}{n(S)}$

Total number of discs $n(S) = 25$

- (i) an odd number

Number of odd numbered discs from 1 to 25
= 13

$$n(E) = 13$$

$$Pr(E) = \frac{13}{25} = 0.52$$

- (ii) divisible by 2 and 3 both.

Number of discs numbered that are divisible
by 2 and 3 = 4

$$n(E) = 4$$

$$Pr(E) = \frac{4}{25} = 0.16$$

- (iii) a number less than 16.

Number of discs numbered less than 16 = 15

$$n(E) = 15$$

$$Pr(E) = \frac{15}{25} = 0.6$$