**CLASS X** **ASSIGNMENT 2** **PROBABILITY**

**1.** A child has a die whose six faces show the letters as given below:
A, B, C, D, E, A. The die is thrown once. What is the probability of getting
(i) A (ii) D

**2.**A lot consists of 144 ball pens of which 20 are defective and the others are good. Nuri will buy a pen if it is good, but will not buy if it is defective. The shopkeeper draws one pen at random and gives it to her. What is the probability that (i) She will buy it (ii) She will not buy it.

**3.** A game consists of tossing a one rupee coin 3 times and noting its outcome each time. Hanif wins if all the tosses give the same result i.e., three heads or three tails, and loses otherwise. Calculate the probability that Hanif will lose the game.

**4.** A die is thrown twice. What is the probability that
(i) 5 will not come up either time
(ii) 5 will come up at least once [Hint : Throwing a die twice and throwing two dice simultaneously are treated as the same experiment]**.**

**5.** Which of the following arguments are correct and which are not correct? Give reasons for your answer.
(i) If two coins are tossed simultaneously,there are three possible outcomes—two heads, two tails or one of each. Therefore, for each of these outcomes, the probability is 1 / 3 .
(ii) If a die is thrown, there are two possible outcomes—an odd number or an even number. The probability of getting an odd number is 1 / 2 .

**6.** Two customers Shyam and Ekta are visiting a particular shop in the same week (Tuesday to Saturday). Each is equally likely to visit the shop on any day as on another day. What is the probability that both will visit the shop on (i) the same day (ii) consecutive days (iii) different days

**7.** A bag contains 5 red balls and some blue balls. If the probability of drawing a blue ball is double that of a red ball, determine the number of blue balls in the bag.

**8.** A box contains 12 balls out of which x are black. If one ball is drawn at random from the box, what is the probability that it will be a black ball?

If 6 more black balls are put in the box, the probability of drawing a black ball is now double of what it was before. Find x.