

# PROBABILITY

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1. If the probability of an event  $E$  happening is 0.023, then  $P(\bar{E}) = \underline{\hspace{2cm}}$ .
2. Read the following passage and answer the questions given at the end:

## **Diwali Fair**

A game in booth Diwali Fair involves using a spinner first. Then, if the spinner stops on an even member, the player is allowed to pick a marble from a bag. The spinner and the marbles in the bag are represented in Figure 1. Prizes are given, when a black marble is picked. Shooter plays the game once.

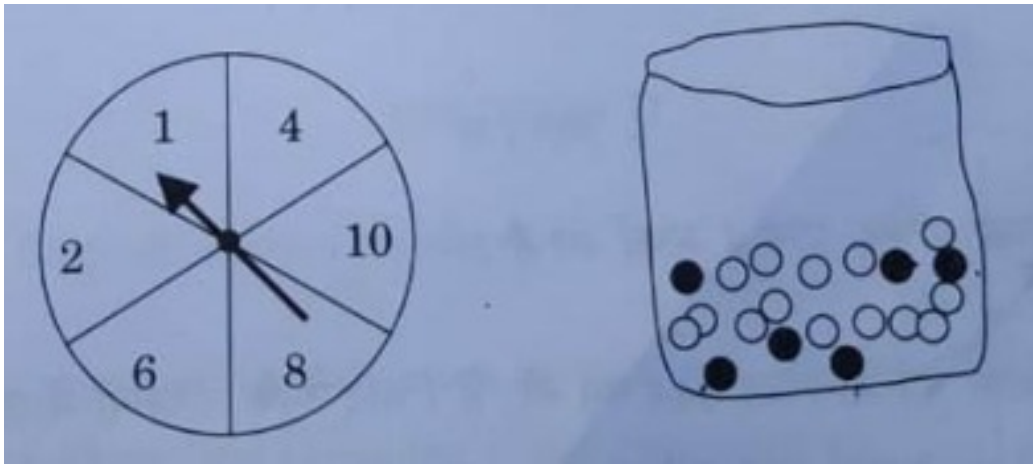


Figure 1: A bag contains of marbles

- (i) what is the probability that she will be allowed to pick a mobile from the bag?

- (ii) suppose she is allowed to pick a marble from the bag, what if the probability of getting a prize, when it is given that the bag contains 20 balls out of which 6 came black?
3. A fair dice is thrown two times. Find the probability distribution of the number of sixes. Also determine the mean of the number of sixes.
4. A card from a pack of 52 cards is lost. From the remaining cards of the pack, two cards are drawn randomly one-by-one without replacement and are found to be both kings. Find the probability of the last card being a king.