



MATHEMATICS
CH-13- PROBABILITY

Name: _____

Date: _____

Class: XII Sec: ____

1. A problem in Maths is given to three students whose chances to solve it are $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$. What is the probability that (i) the problem is solved (ii) exactly one of them solve the problem.
2. A die is thrown 6 times. If getting an odd number is a success, what is the probability of (i) 5 success (ii) at least 5 success (iii) at most 5 success.
3. A girl throws a die. If she gets a 5 or 6, she tosses a coin three times and notes the number of heads. If she gets 1,2,3,4 she tosses a coin two times and notes the number of heads. If she obtained exactly two heads, what is the probability that she threw 1,2,3,4 with the die ?
4. Bag I contains 3 red and 4 black balls and bag II contains 4 red and 5 black balls. Two balls are transferred from bag I to II and then a ball is drawn at random from bag II. The ball so drawn is found to be red in colour. Find the probability that the transferred balls were both black.
5. From a lot of 10 bulbs which includes 3 defectives, a sample of two bulbs is drawn at random. Find the probability distribution of number of defective bulbs. Also find the mean and variance.
6. A man is known to speak truth 3 out of 5 times. He throws a die and reports that it is a number greater than 4. Find the probability that it is actually a number greater than 4.
7. There are three coins. One is a two headed coin, another is a biased coin that comes up head 75% of the times and the third is an unbiased coin. One of the three coins is chosen at random and tossed, it shows head, what is the probability that it was a two headed coin ?
8. A card from a pack of 52 cards is lost. From the remaining cards three cards are drawn at random without replacement and are found to be all spades. Find the probability that the lost card is a spade?