

**BOARD QUESTIONS**  
**PROBABILITY (class 10)**

1. Cards marked with the numbers 2 to 101 are placed in a box and mixed thoroughly. One card is drawn from this box. Find the probability that the number on the card is a perfect square. ( Ans :  $9/100$  )
2. Cards, marked with numbers 5 to 50, are placed in a box and mixed thoroughly. A card is drawn at random. Find the probability that the number on the taken out card is 1) a prime number less than 10. 2) A number which is a perfect square. ( Ans :  $1/23$  and  $5/46$  )
3. A bag contains 4 red balls, 5 black balls and 3 yellow balls. A ball is taken out at random. Find the probability of taking 1) a yellow colour ball 2) not a red colour ball. ( Ans :  $1/4$  and  $2/3$  )
4. A bag contains 5 white balls, 7 red balls, 4 black balls and 2 blue balls. One ball is drawn at random from the bag. What is the probability that the ball drawn is
  - a) White or blue
  - b) Red or black
  - c) Not white
  - d) Neither white nor black( Ans :  $7/18$  ,  $11/18$  ,  $13/18$  and  $1/2$  )
5. A bag contains tickets numbered 11, 12, 13... 30. A ticket is drawn at random. Find the probability that the number on the drawn ticket a) is a multiple of 7 b) is greater than 15 and a multiple of 5. (Ans:  $3/20$  and  $3/20$ )
6. A box contains 20 balls bearing numbers 1, 2, 3, 4... 20. A ball is drawn at Random from the box what is the probability that the number on the ball is
  - 1) An odd number 2) divisible by 2 or 3
  - 3) A prime number 4) not divisible by 10(Ans:  $1/2$ ,  $13/20$ ,  $2/5$ ,  $9/10$ )  
(Hint: for the 2<sup>nd</sup> option count the numbers divisible by 2 and then count the numbers divisible by 3 and consider the numbers repeated only once)
7. A pair of dice is thrown find the probability of getting the same number on each dice. (Ans:  $1/6$ )
8. A card is drawn from a well shuffled deck of playing cards. Find the probability That the card drawn is 1) a king or a jack 2) a non Ace 3) a red card 4) neither king nor a queen (Ans:  $2/13$ ,  $12/13$ ,  $1/2$ ,  $11/13$ )
9. The king, queen and jack of clubs are removed from the deck of 52 playing cards And the remaining cards are shuffled. A card is drawn from the remaining cards. Find the probability of getting a card of 1) heart 2) queen 3) club (Ans:  $3/49$ ,  $3/49$  and  $10/49$ ) (Hint: the total number outcome =  $52 - 3 = 49$ )
10. All the 3 face cards of spades are removed from a well shuffled pack of 52 cards. A card is then drawn at random from the remaining. Find the probability of Getting 1) a black face card 2) a queen 3) a black card (Ans:  $3/49$ ,  $3/49$ ,  $23/49$ )