

**TRANSFERRED PROBLEM**

1. A bag A contains 5 white and 6 black balls. Another bag B contains 4 white and 3 black balls. A ball is transferred from bag A to the bag B and then a ball is taken out of the second bag. Find the probability of his ball being black.  
**Ans. 39/88**
2. A purse contains 2 silver and 4 copper coins. A second purse contains 4 silver and 3 copper coins. If a coin is pulled at random from one of the two purses, what is the probability that it is a silver coin ?  
**Ans. 19/42**
3. One bag contains 4 yellow and 5 red balls. Another bag contains 6 yellow and 3 red balls. A ball is transferred from the first bag to the second bag and then a ball is drawn from the second bag. Find the probability that ball drawn is yellow.  
**Ans. 29/45**
4. A bag contains 3 white and 2 black balls and another bag contains 2 white and 4 black balls. One bag is chosen at random. From the selected bag, one ball is drawn. Find the probability that the ball drawn is white.  
**Ans. 7/15**
5. The contents of three bags I, II and III are as follows :  
Bag I : 1 white, 2 black and 3 red balls,  
Bag II : 2 white, 1 black and 1 red ball, and  
Bag III : 4 white, 5 black and 3 red balls.  
A bag is chosen at random and two balls are drawn. What is the probability that the balls are white and red ?  
**Ans. 118/495**
6. An unbiased coin is tossed. If the result is a head, a pair of unbiased dice is rolled and the sum of the numbers obtained is noted. If the result is a tail, a card from a well shuffled pack of eleven cards numbered 2,3,4,....., 12 is picked and the number on the card is noted. What is the probability that the noted number is either 7 or 8 ?  
**Ans. 193/792**
7. A factory has two machines A and B. Past records show that the machine A produced 60% of the items of output and machine B produced 40% of the items. Further 2% of the items produced by machine A were defective and 1% produced by machine B were defective. If an item is drawn at random, what is the probability that it is defective ?  
**Ans. 0.016**
8. The bag A contains 8 white and 7 black balls while the bag B contains 5 white and 4 black balls. One ball is randomly picked up from the bag A and mixed up with the balls in bag B. Then a ball is randomly drawn out from it. Find the probability that ball drawn is white.  
**Ans. 83/150**