

**IEM KOLKATA****PROBABILITY**

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Q1) Suresh keeps all his socks in a single drawer. He has 24 pairs of white socks and 18 pairs of grey socks. Suresh picks 3 socks randomly. Find the probability of Suresh choosing a matching pair.

Q2) What is the probability of drawing a Jack or a Spade from a well-shuffled standard deck of 52 playing cards?

Q3) A box has 6 black, 4 red, 2 white and 3 blue shirts. When 2 shirts are picked randomly, what is the probability that either both are white or both are blue?

Q4) There are 2 pots. One pot has 5 red and 3 green marbles. The other has 4 red and 2 green marbles. What is the probability of drawing a red marble?

Q5) A box has 6 black, 4 red, 2 white and 3 blue shirts.

(i) Find the probability of drawing 2 black shirts if they are picked randomly?

(ii) What is the probability that 2 red shirts and 1 blue shirt get chosen during a random selection of 3 shirts from the box?

(iii) What is the probability of picking at least 1 red shirt in 4 shirts that are randomly picked?

Q6) On rolling a die 2 times, the sum of the 2 numbers that appear on the uppermost faces is 8. What is the probability that the first throw of the die yields 4?

Q7) A box has 5 black and 3 green shirts. One shirt is picked randomly and put into another box. The second box has 3 black and 5 green shirts. Now a shirt is picked from the second box. What is the probability of it being a black shirt?

Q8) In a drawer there are 4 white socks, 3 blue socks and 5 grey socks. Two socks are picked randomly. What is the probability that both the socks are of same colour?

Q9) What is the probability of drawing two clubs from a well-shuffled deck of 52 cards?