

Answer on Question #57372 – Math – Statistics and Probability

Question

During summer vacations Tanuja wants to visit three cities, Kolkata, Bhubneshvar and Chennai randomly. Find the probability that she will visit ,

- 1) Bhubneshvar before Chennai
- 2) Bhubneshvar just before Kolkata

Solution

There are 6 possible different cases:

1. Kolkata, Bhubneshvar, Chennai.
2. Kolkata, Chennai, Bhubneshvar.
3. Bhubneshvar, Kolkata, Chennai.
4. Bhubneshvar, Chennai, Kolkata.
5. Chennai, Kolkata, Bhubneshvar.
6. Chennai, Bhubneshvar, Kolkata.

- 1) The probability that Tanuja will visit Bhubneshvar before Chennai (corresponds to 1, 3 and 4 cases) is equal to $\frac{3}{6} = \frac{1}{2} = 0.5$.
- 2) The probability that Tanuja will visit Bhubneshvar just before Kolkata (corresponds to 3, 6 cases) is equal to $\frac{2}{6} = \frac{1}{3} \approx 0.33$.

Answer: 1) $\frac{1}{2}$; 2) $\frac{1}{3}$.