**Session 3 Questions**

1. **You are playing with a dice and your events are 5 and 6. What will be your complement of the event?**

Occurrence of either of 1,2,3,4

1. **Complementary events are two mutually exclusive events whose probabilities add up to**

* **0.5**
* **>1**
* **0**
* **1**

1. **You have a six-sided dice (1, 2, 3, 4, 5, 6,) and you are playing with it. You got 4 and nothing else. What it represents.**

* **Mutually exclusive events**
* **Non-disjoint events**
* **Independent events**
* **Conditional probability**

1. **What is the probability of drawing a queen or an ace from a well shuffled full deck of cards?**

Event: Drawing ace or queen

Sample Space = 52 (Total Cards)

E : Total 4 queens + 4 aces = 8

P(E) = 8/52 = 0.154

1. **What is the probability of drawing a Queen or a Black card from a well shuffled full deck of cards?**

Event: Drawing black or queen

Sample Space = 52 (Total Cards)

E : Total 4 queens + 26 black cards -2 queens (who are black and have been added in 4 queens) = 28

P(E) = 28/52 = 0.54

1. **Two processes are ------------- if knowing the outcome of one provides no useful information about the outcome of the other.**

* **Non-disjoint**
* **Independent**
* **Mutually exclusive**
* **Conditional**

1. **You are playing with cards (52 cards). You want to get a queen of diamond in first chance. However, without replacing cards you tried again. Now, what type of event it will be.**

* **Dependent**
* **Independent**
* **Both**
* **None of the above**

1. **You rolled a dice thrice, what is the probability of getting 2 thrice in a row?**

Sample Space = 6^3 = 216

E : 1 because there is only one possibility to get 2 thrice in a toss of a die 3 times.

P(E) = 1/216 = 0.005