

TUTORIAL-1

MTH202: SPRING 2023

- (1) Two coins are tossed at the same time. Write down the sample space. Find the probability of (i) getting two heads, (ii) getting one head and one tail.
- (2) Three coins are tossed at a time. Write down the sample space. Find the probability of getting
 - (i) three heads, (ii) no head, (iii) at least one head, (iv) exactly one head and (v) four heads.
- (3) A dice (with six faces) is thrown. Find the probability that the result will be (i) six, (ii) multiple of two, and (iii) seven.
- (4) Four cards are drawn at random from a pack of 52 cards. Find the probability that
 - (i) They are a king, a queen, an ace or a jack.
 - (ii) Two are black and two are red.
- (5) If the letters of the word REGULATIONS be arranged at random, what is the probability that there will be exactly 4 letters between R and E.
- (6) If the letters of the word MISSISSIPPI is arranged at random, what is the probability that four S's come consecutively?
- (7) If n balls are distributed at random in m boxes, what is the probability that the first box will contain $r(< n)$ balls.
- (8) Suppose, there was a meeting at Mohali. The meeting was held in the meeting room that has a round table with n (unnumbered) chairs for n Senate representatives. What is the possibility that the two Senate members Mr. X and Mr. Y are sitting next to each other?