

Assignment Probability

- Q1. A coin is tossed. Find the probability that a head is obtained.
 Q2. Find probability of throwing 5 with an ordinary dice.
 Q3. Probability of winning a game is 0.4. What is the probability of loosing the game?
 Q4. A person is known to hit the target in 3 shots out of 4 shots. Find the probability that the target is not hit.
 Q5. Tickets numbered from 1 to 20 are mixed together and a ticket is drawn at random. What is the probability that the ticket has a number which is multiple of 3 or 7?
 Q6. A bag contains 100 identical tokens, on which numbers 1 to 100 are marked. A token is drawn at random. What is the probability that the number on the token is:
 (a) an even number (b) an odd number (c) a multiple of 3 (d) a multiple of 5
 (f) a multiple of 3 and 5 (g) a multiple of 3 or 5 (h) a number less than 20
 (i) a number greater than 70 (j) a perfect square number (k) a prime number less than 20.
 Q7. A card is drawn from a well-shuffled pack of cards. Find the probability that the card drawn is:
 (a) a queen (b) a king bearing diamond sign (c) a black card (d) a jack
 (e) black and a queen (f) either black or a queen (g) a red card (h) a face card
 (i) a diamond or a club (j) neither heart nor a jack (k) a 2 of diamond
 (l) an ace of hearts (m) a face card of red color (n) 10 of a black "suit"
 Q8. In a simultaneous toss of two coins, find:
 (a) P(2 tails) (b) P(exactly one tail) (c) P(no tails) (d) P(at most one head) (e) P(one head)
 Q9. A coin is tossed successively three times. Find probability of getting exactly one head or two heads.
 Q10. Three coins are tossed once. Find probability of:
 (a) 3 heads (b) exactly 2 heads (c) atleast 2 heads (d) atmost 2 heads
 (e) no tails (f) head and tail appear alternatively (g) atleast one head and one tail
 Q11. A dice is thrown once. Find:
 (a) P(number 5) (b) P(number 7) (c) P(an even number) (d) P(a number greater than 4)
 (e) P(a number less than or equal to 4) (f) P(a prime number)
 Q12. A bag contains 10 white, 6 black and 4 red balls. Find probability of getting:
 (a) a white ball (b) a black ball (c) not a red ball (d) a white or a red ball
 Q13. Two dice are thrown simultaneously. Find:
 (a) P(an odd number as a sum) (b) P(sum as a prime number) (c) P(a doublet of odd numbers)
 (d) P(a total of atleast 9) (e) P(a multiple of 2 on one die and a multiple of 3 on other die)
 (f) P(a doublet) (g) P(a multiple of 2 as sum) (h) P(getting the sum 9) (i) P(getting a sum greater than 12) (j) P(a prime number on each die) (k) P(a multiple of 5 as a sum)
 Q14. Find the probability that a leap year at random contains 53 Sundays.
 Q15. Two black kings and two black jacks are removed from a pack of 52 cards. Find the probability of getting:
 (a) a card of hearts (b) a black card (c) either a red card or a king
 (d) a red king (e) neither an ace nor a king (f) a jack, queen or a king

***NOTE:** A pack of playing cards consists of 52 cards, which are divided into 4 suits of 13 cards each. Each suit consists of one ace, one king, one queen, one jack and 9 other cards numbered from 2 to 10. Four suits are named as spades(♠), clubs(♣), hearts(♥) and diamonds(♦). (spades & clubs are **black**, hearts & diamonds are **red**)

ANSWERS

Ans(1) 1/2 Ans(2) 1/6 Ans(3) 0.6 Ans(4) 1/4 Ans(5) 2/5 Ans(6) (a) 1/2 (b) 1/2 (c) 33/100 (d) 1/5 (e) 3/50 (f) 47/100 (g) 19/100 (h) 3/10 Ans(7) (a) 1/13 (b) 1/52 (c) 1/2 (d) 1/13 (e) 1/26 (f) 7/13 (g) 1/2 (h) 4/13 (i) 1/2 (j) 9/13 (k) 1/52 (l) 1/52 (m) 3/26 (n) 1/26 Ans(8) (a) 1/4 (b) 1/2 (c) 1/4 (d) 3/5 (e) 1/2 Ans(9) 3/4 Ans(10) (a) 1/8 (b) 3/8 (c) 1/2 (d) 7/8 (e) 1/8 (f) 1/4 (g) 3/4 Ans(11) (a) 1/6 (b) 0 (c) 1/2 (d) 1/3 (e) 2/3 (f) 1/2 Ans(12) (a) 1/2 (b) 3/10 (c) 4/5 (d) 7/10 Ans(13) (a) 1/2 (b) 5/12 (c) 1/12 (d) 5/18 (e) 11/36 (f) 1/6 (g) 1/2 (h) 1/9 (i) 0 (j) 1/12 (k) 7/36 Ans(14) 2/7 Ans(15) (a) 13/48 (b) 11/24 (c) 13/24 (d) 1/24 (e) 7/8 (f) 1/6