

Assignment1

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I. ICSE 10 2018 PAPER QUESTION 1(C)

bearing an odd number is 0.

Cards bearing numbers 2, 4, 6, 8, 10, 12, 14, 16, 18 and 20 are kept in a bag. A card is drawn at random from the bag. Find the probability of getting a card which is:

- (i) a prime number.
- (ii) a number divisible by 4.
- (iii) a number that is a multiple of 6.
- (iv) an odd number.

II. ANSWER

Probability, by definition is the ratio of number of favourable outcomes to total number of possible outcomes.

- (i) As given numbers are all even numbers from 2 to 20, only 2 is the prime number. And number of possible outcomes is 10.
So required probability of getting a card bearing a prime number is $\frac{1}{10}$.
- (ii) Among the given numbers 4, 8, 12, 16 and 20 are divisible by 4. The total number of cards are 10 out of which 5 cards are divisible by 4.
Required probability is $\frac{5}{10} = \frac{1}{2}$.
Therefore, probability of getting a card bearing a number that is divisible by 4 is $\frac{1}{2}$.
- (iii) Among the given numbers 6, 12 and 18 are multiples of 6. The total number of outcomes are 10 out of which 3 are required cards.
So, required probability of getting a card bearing a number that is multiple of 6 is $\frac{3}{10}$.
- (iv) There are no odd numbers present among the given set of numbers.
Therefore, the probability of getting a card