Probability Ex 13.1 Q1

Answer:

Given: Probability that it will rain $P(E) = 0.85$

TO FIND: Probability that it will not rain $P(\overline{E})$

CALCULATION: We know that sum of probability of occurrence of an event and probability of non occurrence of an event is 1.

$P(E) + P(\overline{E}) = 1$

$0.85 + P(\overline{E}) = 1$

$P(\overline{E}) = 1 - 0.85$

$P(\overline{E}) = 0.15$

Hence the probability that it will not rain is $= \boxed{0.15}$

Probability Ex 13.1 Q2

Answer:

GIVEN: A dice is thrown once

TO FIND

(i) Probability of getting a prime number

(ii) Probability of getting 2 or 4

(iii) Probability of getting a multiple of 2 or 3.

(iv) Probability of getting an even number

(v) Probability of getting a number greater than five.

(vi) Probability of lying between 2 and 6

Total number on a dice is 6.

(i) Prime number on a dice are 2,3,5

Total number of prime numbers on dice is 3

We know that PROBABILITY $= \dfrac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting a prime number $= \dfrac{3}{6} = \boxed{\dfrac{1}{2}}$

(ii) for getting 2 and 4 favorable outcome are 2

We know that PROBABILITY $= \dfrac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting 2 or 4 $= \dfrac{2}{6} = \boxed{\dfrac{1}{3}}$

(iii) Multiple of 2 are 3 are 2, 3, 4 and 6

Hence favorable outcome is 4

We know that PROBABILITY = $\dfrac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting an multiple of 2 or 3 = $\dfrac{4}{6}$ = $\boxed{\dfrac{2}{3}}$

(iv) an even prime number is 2

Hence favorable outcome is 1

We know that PROBABILITY = $\dfrac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting an even prime number = $\boxed{\dfrac{1}{6}}$

(v) A number greater than 5 is 6

Hence favorable outcome is 1

We know that PROBABILITY = $\dfrac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting a number greater than 5 = $\boxed{\dfrac{1}{6}}$

(vi) Total number on a dice is 6.

Number lying between 2 and 6 are 3, 4 and 5

Total number of number lying between 2 and 6 is 3

We know that PROBABILITY = $\dfrac{\text{Number of favourable event}}{\text{Total number of event}}$

Hence probability of getting a number lying between 2 and 6 = $\dfrac{3}{6}$ = $\boxed{\dfrac{1}{2}}$

********** END *********