



Class 7 Mathematics RS Aggarwal Solutions Chapter 23 Probability

Question 1.

A coin is tossed 300 times and we get head = 136 times and tail = 164 times.

When a coin is tossed at random, what is the probability of getting (i) a head (ii) a tail ?

Solution:

(i) Here, total number of trials = 300

Number of heads got = 136.

$$P(E) = \frac{136}{300} = \frac{34}{75}$$

(ii) Total number of trials = 300

Number of tails got = 164

$$P(E) = \frac{164}{300} = \frac{41}{75}$$

Question 2.

Two coins are tossed simultaneously 200 times and we get two heads = 58 times ; one head = 83 times, 0 head = 59 times. When two coins are tossed at random, what is the probability of getting

(i) 2 heads

(ii) 1 head

(iii) 0 head ?

Solution:

Number times, the two coins were tossed = 200

Number of times got two heads = 58

Number of times got one head = 83

and number of times got no head = 59

(i) Probability of getting 2 heads : $P(E) = \frac{58}{200} = \frac{29}{100}$

(ii) Probability of getting one head : $P(E) = \frac{83}{200}$

(iii) Probability of getting no head : $P(E) = \frac{59}{200}$

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Question 3.

A dice is thrown 100 times and the out comes are noted as given below :

Outcome	1	2	3	4	5	6
Frequency	21	14	18	15	23	9

When a dice is thrown at random, what is the probability of getting a

(i) 3

(ii) 6

(iii) 4

(iv) 1 ?

Solution:

Number of times, a dice was thrown = 100

(i) Number of times got 3 = 18

Probability will be

$$P(E) = \frac{18}{100} = \frac{9}{50}$$

(ii) Number of times got 6 = 9

Probability will be

$$P(E) = \frac{9}{100}$$

iii) Number of times got 4 = 15

Probability will be

$$P(E) = \frac{15}{100} = \frac{3}{20}$$

(iv) Number of times got 1 = 21

Probability will be

$$P(E) = \frac{21}{100}$$

Question 4.

In a survey of 100 ladies, it was found that 36 like coffee while 64 dislike it. Out of these ladies, one is chosen at random. What is the probability that the chosen lady

(i) likes coffee

(ii) dislikes coffee ?

Solution:

Total number of ladies = 100

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Number of ladies also like coffee = 36.

Number of ladies who dislike coffee = 64

(i) Probability of lady who like coffee :

$$P(E) = \frac{36}{100} = \frac{9}{25}$$

(ii) Probability of lady who dislikes coffee:

$$P(E) = \frac{64}{100} = \frac{16}{25}$$