EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Probability

Grade : SSC Grade IX

1. A coin is tossed 80 times and head appears 40 times. If the coin is tossed again, what is the probability of getting a tail?

(i) $\frac{2}{3}$ (ii) $\frac{4}{5}$ (iii) $\frac{3}{4}$ (iv) $\frac{1}{2}$ (v) $\frac{5}{6}$

2. Three coins are tossed simultaneously 160 times with the following frequencies of different outcomes :

Outcome	3 heads	2 heads	1 heads	No heads
Frequency	25	35	45	55

If the three coins are simultaneously tossed again, compute the probability of '1 heads' coming up.

(i) $\frac{9}{32}$ (ii) $\frac{5}{16}$ (iii) $\frac{1}{4}$ (iv) $\frac{23}{32}$ (v) $\frac{10}{33}$

3. Three unbiased coins are tossed simultaneously. Find the probability of getting at most one head.

(i) $\frac{3}{4}$ (ii) $\frac{4}{5}$ (iii) $\frac{2}{3}$ (iv) $\frac{1}{2}$ (v) $\frac{5}{6}$

4. Three unbiased coins are tossed simultaneously. Find the probability of getting at least two heads.

(i) $\frac{2}{3}$ (ii) $\frac{4}{5}$ (iii) $\frac{3}{4}$ (iv) $\frac{5}{6}$ (v) $\frac{1}{2}$

5. The following table shows the blood-groups of 369 students of a class.

Blood group	A	AB	B	O
Number of students	54	81	99	135

One student of the class is choosen at random. What is the probability that the choosen student has blood group 'O' ?

(i) $\frac{14}{41}$ (ii) $\frac{8}{21}$ (iii) $\frac{16}{41}$ (iv) $\frac{15}{41}$ (v) $\frac{26}{41}$

6. A box contains 15 orange marbles, 65 pink marbles, 25 black marbles and 60 gray marbles. One marble is drawn at random from the box. Find the probability that the marble drawn is neither black nor gray.

(i) $\frac{5}{11}$ (ii) $\frac{16}{33}$ (iii) $\frac{1}{2}$ (iv) $\frac{17}{33}$

7. When two coins are tossed simultaneously, how many elementary events are possible?

(i) 1 (ii) 3 (iii) 6 (iv) 4 (v) 5

8. A carton consist of 95 shirts of which 84 are good, 8 have minor defects and 3 have major defects. Vivek, a trader, will only accept the shirts which are good, but Vimala, another trader, will only reject the shirts which have major defects. One shirt is drawn at random from the carton. What is the probability that it is acceptable to Vivek?

(i) $\frac{84}{95}$ (ii) $\frac{11}{95}$ (iii) $\frac{17}{19}$ (iv) $\frac{85}{96}$ (v) $\frac{83}{95}$

9. A coin is tossed 40 times and tail appears 20 times. If the coin is tossed again, what is the probability of getting a head?

(i) $\frac{1}{2}$ (ii) $\frac{4}{5}$ (iii) $\frac{5}{6}$ (iv) $\frac{3}{4}$ (v) $\frac{2}{3}$

10. Two coins are tossed simultaneously 40 times and it was observed that both heads appeared 30 times. If two coins are tossed simultaneously at random, what is the probability of getting both heads?

(i) 1 (ii) $\frac{1}{2}$ (iii) $\frac{4}{5}$ (iv) $\frac{1}{4}$ (v) $\frac{3}{4}$

11. 58 cards are numbered 1,2,3,....58 and put in a box and mixed thoroughly. A card is drawn at random. What is the probability that the number on the drawn card is an odd number?

(i) $\frac{3}{4}$ (ii) $\frac{1}{2}$ (iii) $\frac{5}{6}$ (iv) $\frac{4}{5}$ (v) $\frac{2}{3}$

12. A die is thrown 140 times. Prime numbers appeared on the upper face 30 times. If a die is thrown at random, what is the probability of getting a prime number?

(i) $\frac{11}{14}$ (ii) $\frac{3}{14}$ (iii) $\frac{2}{7}$ (iv) $\frac{4}{15}$ (v) $\frac{1}{7}$

13. In a lottery, there are 25 prizes and 18 blanks. What is the probability of getting a prize?

(i) $\frac{26}{43}$ (ii) $\frac{25}{43}$ (iii) $\frac{24}{43}$ (iv) $\frac{18}{43}$ (v) $\frac{13}{22}$

14. On a particular day, at a crossing in a city, the various types of 160 vehicles going past during a time-interval were observed as under:

Type of Vehicle	Four-wheeler	Three-wheeler	Two-wheeler
Frequency	40	50	70

Out of these vehicles, if one is choosen at random, what is the probability that the choosen vehicle is a 'Four-wheeler' ?

(i) 0 (ii) $\frac{2}{5}$ (iii) $\frac{3}{4}$ (iv) $\frac{1}{4}$ (v) $\frac{1}{2}$

15. What is the probability of an impossible event?

(i) 0 (ii) $\frac{1}{2}$ (iii) 1 (iv) $\frac{3}{4}$ (v) $\frac{1}{4}$

16. An unbiased die is thrown once. Find the probability of getting an even number?

(i) $\frac{1}{2}$ (ii) $\frac{5}{6}$ (iii) $\frac{3}{4}$ (iv) $\frac{4}{5}$ (v) $\frac{2}{3}$

17. A game consists of tossing a coin 3 times and noting its outcome each time. Sai wins if all the tosses give the same result i.e., three heads or three tails, and loses otherwise. Calculate the probability that Sai will lose the game.

(i) $\frac{4}{5}$ (ii) $\frac{1}{2}$ (iii) $\frac{1}{4}$ (iv) $\frac{3}{4}$ (v) 1

18. A die is thrown twice. What is the probability that 3 will come atleast once?

(i) $\frac{12}{37}$ (ii) $\frac{5}{18}$ (iii) $\frac{11}{36}$ (iv) $\frac{25}{36}$ (v) $\frac{1}{3}$

19. A box contains 90 discs which are numbered from 1 to 90. If one disc is drawn at random from the box, find the probability that it bears a two-digit number.

(i) $\frac{1}{10}$ (ii) $\frac{9}{10}$ (iii) $\frac{4}{5}$ (iv) $\frac{10}{11}$ (v) 1

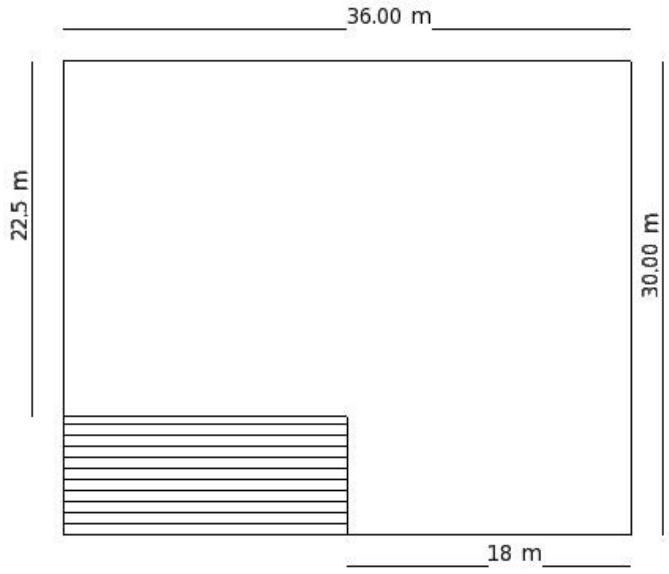
20. What is the probability of a sure event?

(i) 0 (ii) $\frac{1}{2}$ (iii) 1 (iv) $\frac{1}{4}$ (v) $\frac{3}{4}$

21. Two unbiased coins are tossed simultaneously. Find the probability of getting at least two heads.

(i) 0 (ii) $\frac{2}{5}$ (iii) $\frac{1}{4}$ (iv) $\frac{1}{2}$ (v) $\frac{3}{4}$

22. A missing helicopter is reported to have crashed somewhere in the rectangular region shown in fig. What is the probability that it crashed inside the shaded region as shown in the figure?



(i) $\frac{1}{4}$ (ii) $\frac{2}{9}$ (iii) $\frac{1}{8}$ (iv) $\frac{7}{8}$ (v) 0

23. One card is drawn at random from a well shuffled deck of 52 cards. What is the probability that the card drawn is a red jack?

(i) $\frac{1}{4}$ (ii) $\frac{1}{13}$ (iii) $\frac{1}{26}$ (iv) $\frac{3}{13}$ (v) $\frac{1}{52}$

24. Two unbiased dice are thrown simultaneously. Find the probability of getting at least 12 as the sum of the two numbers on the dice.

(i) $\frac{2}{37}$ (ii) 0 (iii) $\frac{1}{36}$ (iv) $\frac{1}{18}$ (v) $\frac{35}{36}$

25. 100 cards are numbered 1,2,3,....100 and put in a box and mixed thoroughly. A card is drawn at random. What is the probability that the number on the drawn card is less then 24?

(i) $\frac{77}{100}$ (ii) $\frac{24}{101}$ (iii) $\frac{23}{100}$ (iv) $\frac{11}{50}$ (v) $\frac{6}{25}$

Assignment Key

1) (iv)	2) (i)	3) (iv)	4) (v)	5) (iv)	6) (ii)
7) (iv)	8) (i)	9) (i)	10) (v)	11) (ii)	12) (ii)
13) (ii)	14) (iv)	15) (i)	16) (i)	17) (iv)	18) (iii)
19) (ii)	20) (iii)	21) (iii)	22) (iii)	23) (iii)	24) (iii)
25) (iii)					