EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Probability

Grade : CBSE Grade X

1. In a musical chair game, the person playing the music has been advised to stop playing the music at any time with in 2 minutes after she starts playing. What is the probabilty that the music will stop within the first half-minute after starting?

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

2. Three unbiased coins are tossed simultaneously. Find the probability of getting at least one head.

(i) $\frac{8}{9}$ (ii) $\frac{3}{4}$ (iii) 1 (iv) $\frac{7}{8}$ (v) $\frac{1}{8}$

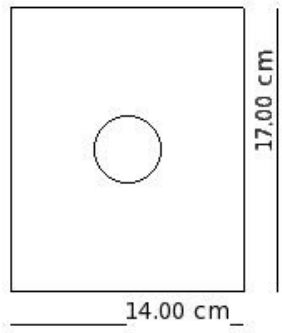
3. A coin is tossed 80 times and tail appears 70 times. If the coin is tossed again, what is the probability of getting a head?

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

4. A carton consist of 88 shirts of which 78 are good, 6 have minor defects and 4 have major defects. Santosh, a trader, will only accept the shirts which are good, but Roja, 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 Santosh?

(i) $\frac{19}{22}$ (ii) $\frac{8}{9}$ (iii) $\frac{5}{44}$ (iv) $\frac{39}{44}$ (v) $\frac{10}{11}$

5. Suppose a die is thrown on a rectangular region as shown below. What is the probability that it will land inside the circle of diameter 4.00 cm?



(i) $\frac{789}{833}$ (ii) $\frac{45}{833}$ (iii) $\frac{15}{278}$ (iv) $\frac{43}{833}$ (v) $\frac{44}{833}$

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

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

7. A die is thrown 370 times. The number 5 appears on the upper face 62 times. Now the die is thrown at random. What is the probability of getting a 5 ?

(i) $\frac{154}{185}$ (ii) $\frac{16}{93}$ (iii) $\frac{32}{185}$ (iv) $\frac{31}{185}$ (v) $\frac{6}{37}$

8. Two unbiased coins are tossed simultaneously. Find the probability of getting no head.

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

9. If $P(E) = 0.67$, find $P(\overline{E})$

(i) 2.33 (ii) 1.33 (iii) 7.33 (iv) 8.33 (v) 0.33

10. A survey of 150 men showed that only 100 of them know French. Out of these men, if one is selected at random, what is the probability that the selected man knows French?

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

11. Three unbiased coins are tossed simultaneously. Find the probability of getting exactly one head.

(i) $\frac{3}{8}$ (ii) $\frac{1}{2}$ (iii) $\frac{1}{4}$ (iv) $\frac{4}{9}$ (v) $\frac{5}{8}$

12. What is the probability of an impossible event?

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

13. One card is drawn at random from a well shuffled deck of 52 cards. What is the probability that the card drawn is a queen of diamonds?

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

14. One card is drawn at random from a well shuffled deck of 52 cards. What is the probability that the card drawn is '3' of black suit ?

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

15. Two players Anjali and Mallika play a tennis match. It is known that the probability of Anjali winning the match is 0.43. What is the probability of Mallika winning the match?

(i) $\frac{58}{101}$ (ii) $\frac{29}{50}$ (iii) $\frac{14}{25}$ (iv) $\frac{57}{100}$ (v) $\frac{43}{100}$

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

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

17. When two dice are thrown simultaneously, how many elementary events are possible?

(i) 36 (ii) 35 (iii) 38 (iv) 37 (v) 34

18. Lakshmi and Manisha are friends. What is the probability that both will have different birthdays? (ignoring a leap year).

(i) 1 (ii) $\frac{1}{365}$ (iii) $\frac{363}{365}$ (iv) $\frac{364}{365}$ (v) $\frac{365}{366}$

19. Two unbiased dice are thrown simultaneously. Find the probability of getting a doublet.

(i) $\frac{5}{6}$ (ii) $\frac{2}{7}$ (iii) $\frac{1}{3}$ (iv) $\frac{1}{6}$ (v) 0

20. 77 cards are numbered 1,2,3,....77 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 14?

(i) $\frac{12}{77}$ (ii) $\frac{2}{11}$ (iii) $\frac{7}{39}$ (iv) $\frac{13}{77}$ (v) $\frac{64}{77}$

21. Two coins are tossed simultaneously 70 times and it was observed that both tails appeared 60 times. If two coins are tossed simultaneously at random, what is the probability of getting both tails?

(i) $\frac{6}{7}$ (ii) $\frac{7}{8}$ (iii) 1 (iv) $\frac{1}{7}$ (v) $\frac{5}{7}$

22. Three coins are tossed simultaneously 230 times with the following frequencies of different outcomes :

Outcome	3 heads	2 heads	1 heads	No heads
Frequency	45	50	60	75

If the three coins are simultaneously tossed again, compute the probability of '2 heads' coming up.

(i) $\frac{4}{23}$ (ii) $\frac{1}{4}$ (iii) $\frac{5}{23}$ (iv) $\frac{18}{23}$ (v) $\frac{6}{23}$

23. 55 cards are numbered 1,2,3,....55 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 greater then 16?

(i) $\frac{8}{11}$ (ii) $\frac{5}{7}$ (iii) $\frac{39}{55}$ (iv) $\frac{38}{55}$ (v) $\frac{16}{55}$

24. Which of the following are true?

a) The probability of an imposible event can be > 1
b) For an event E, we have $0 \leq P(E) \leq 1$
c) The probability of an impossible event is 1
d) The probability of an unsure event is 0
e) The probability of a sure event is 1

(i) {c,e} (ii) {a,b} (iii) {b,e} (iv) {d,a,b} (v) {c,e,b}

25. What is the probability of a sure event?

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

Assignment Key

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