EduSahara™ Learning Center Assignment

Grade : Class X, CBSE
Chapter : Probability
Name : Probability1

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1. A coin is tossed 70 times and tail appears 25 times. If the coin is tossed again, what is the probability of getting a head?

(i) $\frac{4}{7}$ (ii) $\frac{9}{14}$ (iii) $\frac{5}{14}$ (iv) $\frac{2}{3}$ (v) $\frac{5}{7}$

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

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3. Two coins are tossed simultaneously 40 times and it was observed that both heads appeared 20 times. If two coins are tossed simultaneously at random, what is the probability of getting both heads?

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

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

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

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5. A die is thrown 40 times. Prime numbers appeared on the upper face 20 times. If a die is thrown at random, what is the probability of getting a prime number?

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

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6. A survey of 110 men showed that only 105 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) 1 (ii) $\frac{21}{22}$ (iii) $\frac{22}{23}$ (iv) $\frac{1}{22}$ (v) $\frac{10}{11}$

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7. A single unbiased coin is tossed. Find the probability of getting a head

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

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8. Two unbiased coins are tossed simultaneously. Find the probability of getting exactly one head

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

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9. Two unbiased coins are tossed simultaneously. Find the probability of getting at least one head

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

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

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

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11. Two unbiased coins are tossed simultaneously. Find the probability of getting at most one head

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

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

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

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

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

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

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

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

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

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

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

17. Three unbiased coins are tossed simultaneously. Find the probability of getting no head

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

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

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

19. Two unbiased dice are thrown simultaneously. Find the probability of getting 5 as the sum of the two numbers on the dice

(i) $\frac{8}{9}$ (ii) $\frac{1}{5}$ (iii) 0 (iv) $\frac{2}{9}$ (v) $\frac{1}{9}$

20. Two unbiased dice are thrown simultaneously. Find the probability of getting at least 4 as the sum of the two numbers on the dice

(i) $\frac{12}{13}$ (ii) 1 (iii) $\frac{1}{12}$ (iv) $\frac{5}{6}$ (v) $\frac{11}{12}$

21. A die is thrown twice. What is the probability that 2 will come up atleast once?

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

22. A die is thrown twice. What is the probability that 6 will not come up either time?

(i) $\frac{26}{37}$ (ii) $\frac{2}{3}$ (iii) $\frac{25}{36}$ (iv) $\frac{11}{36}$ (v) $\frac{13}{18}$

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 queen?

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

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

$\frac{1}{4}$ $\frac{1}{13}$ $\frac{1}{52}$ $\frac{3}{13}$ $\frac{1}{26}$

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

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25. 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 of diamonds?

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

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26. One card is drawn at random from a well shuffled deck of 52 cards. What is the probability that the card drawn is '2' of diamonds?

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

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27. One card is drawn at random from a well shuffled deck of 52 cards. What is the probability that the card drawn is '5' of black suit ?

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

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

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

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

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30. One card is drawn at random from a well shuffled deck of 52 cards. What is the probability that the card drawn is either a black card or a jack?

(i) $\frac{1}{26}$ (ii) $\frac{7}{13}$ (iii) $\frac{3}{13}$ (iv) $\frac{1}{13}$ (v) $\frac{1}{52}$

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31. An unbiased die is thrown once. Find the probability of getting a prime number?

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

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

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

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33. An unbiased die is thrown once. Find the probability of getting a 6?

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

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34. An unbiased die is thrown once. Find the probability of getting a number greater than 1?

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

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35. An unbiased die is thrown once. Find the probability of getting a number less than 2?

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

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36. An unbiased die is thrown once. Find the probability of getting a number between 2 and 6?

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

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

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

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

(i) 37 (ii) 39 (iii) 33 (iv) 36 (v) 35

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39. When a card is selected randomly out of a pack of cards, how many elementary events are possible?

(i) 52 (ii) 51 (iii) 50 (iv) 53 (v) 55

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40. What is the probability of a sure event?

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

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41. What is the probability of an impossible event?

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

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42. Which of the following are true?

a) The probability of an event that cannot happen is unknown
b) If the probability is too less, it will become negative
c) The probability of an event that is very likely to happen is 1
d) If the probability of failing the exam is 0.33, the probability of passing the exam is 0.67
e) Probability of getting 108 marks out of 100 is 1.08

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

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43. Which of the following experiments have equally likely outcomes?

a) A man starts his vehicle. It starts or it does not starts
b) A man throws a die. The number on the top is either 3 or not 3
c) A baby is born, it is a boy or girl
d) A ball is hit. It reaches the boundary or not

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

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44. Which of the following are possible values of probability?

a) $\frac{2}{7}$
b) -3.2
c) 0.86
d) 3
e) $\frac{9}{8}$

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

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45. If P(E) = 0.6 , find P($\overline{E}$)

(i) 8.4 (ii) 7.4 (iii) 1.4 (iv) 0.4 (v) 2.4

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46. Which of the following are true?

a) The probability of an imposible event can be > 1

b) The probability of an unsure event is 0

c) The probability of a sure event is 1

d) The probability of an impossible event is 1

e) For an event E, we have $0 \le P(E) \le 1$

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

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47. Which of the following are true?

a) P(E) + P(not E) = 1

b) P(E) - P(not E) = 0

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

d) $P(E) - P(\overline{E}) = 0$

e) $P(E) + P(\overline{E}) = 0$

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

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48. A die is thrown 530 times. The number 2 appears on the upper face 94 times. Now the die is thrown at random. What is the probability of getting a 2 ?

(i) $\frac{46}{265}$ (ii) $\frac{47}{265}$ (iii) $\frac{24}{133}$ (iv) $\frac{218}{265}$ (v) $\frac{48}{265}$

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288 families with 2 children were selected randomly, and the following data were recorded

49.

No. of girls in a family	0	1	2
Number of families	63	108	117

Compute the probability of the family, chosen at random, having no girls

(i) $\frac{3}{16}$ (ii) $\frac{1}{4}$ (iii) $\frac{7}{32}$ (iv) $\frac{8}{33}$ (v) $\frac{25}{32}$

Three coins are tossed simultaneously 205 times with the following frequencies of different outcomes :

50.

Outcome	3 heads	2 heads	1 heads	No heads
Frequency	35	45	55	70

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

(i) $\frac{11}{41}$ (ii) $\frac{2}{7}$ (iii) $\frac{30}{41}$ (iv) $\frac{12}{41}$ (v) $\frac{10}{41}$

A die is thrown 265 times with the frequencies for outcomes 1, 2, 3, 4, 5 and 6 as given in the following table

51.

Outcome	1	2	3	4	5	6
Frequency	25	30	40	45	50	75

If the die is thrown again randomly, find the probability of getting 2 as outcome.

(i) $\frac{5}{53}$ (ii) $\frac{7}{54}$ (iii) $\frac{7}{53}$ (iv) $\frac{6}{53}$ (v) $\frac{47}{53}$

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52. A die is thrown twice. What is the probability that 3 will not come up either time?

(i) $\frac{26}{37}$ (ii) $\frac{25}{36}$ (iii) $\frac{11}{36}$ (iv) $\frac{2}{3}$ (v) $\frac{13}{18}$

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53. A die is thrown twice. What is the probability that 5 will come atleast once?

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

Assignment Key

1) (ii)
2) (i)
3) (ii)
4) (v)
5) (iv)
6) (ii)
7) (iii)
8) (v)
9) (iv)
10) (iii)
11) (iv)
12) (iv)
13) (iii)
14) (i)
15) (ii)
16) (iv)
17) (i)
18) (ii)
19) (v)
20) (v)
21) (ii)
22) (iii)
23) (ii)
24) (v)
25) (v)
26) (iv)
27) (i)
28) (iii)
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30) (ii)
31) (v)
32) (iv)
33) (ii)
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44) (ii)
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47) (iv)
48) (ii)
49) (iii)
50) (i)
51) (iv)
52) (ii)
53) (ii)