MATHS

BOOKS - VGS PUBLICATION-BRILLIANT

PROBABILITY

Exercise

1. If two identical coins are tossed simultaneously. Find the possible outcomes.

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2. If two identical coins are tossed simultaneously. Find (a) the possible outcomes, (b) the number of total outcomes, (c) the probability of getting two heads, (d) probability of getting atleast one head, (e) probability of getting no heads and (f) probability of getting only one head.

3. 8 coins are tossed simultaneously. Find the probability of getting at least 6 heads.

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4. If two identical coins are tossed simultaneously. Find probability of getting at least one head.

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6. If two identical coins are tossed simultaneously. Find (a) the possible outcomes, (b) the number of total outcomes, (c) the probability of getting two heads, (d) probability of getting atleast one head, (e) probability of getting no heads and (f) probability of getting only one head.

7. (a) Write the probability of getting each number on the top face when a die was rolled in the following table. (b) Find the sum of the probabilities of all outcomes.

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8. (a) Write the probability of getting each number on the top face when a die was rolled in the following table. (b) Find the sum of the probabilities of all outcomes.

9. Find the probability of each event when a die is rolled once

Event	Favourable outcome(s)	Number of favourable outcome(s)	Total possible outcomes	Number of total possible outcomes	Probability = Number of favourable outcomes / Number of total possible outcomes
Getting a number 5 on the top face	5	1	1, 2, 3, 4, 5 and 6	6	1/6
Getting a number greater than 3 on the top face					
Getting a prime number on the top face					
Getting a number less than 5 on the top face					
Getting a number that is a factor of 6 on the top face					
Getting a number greater than 7 on the top face					
Getting a number that is a Multiple of 3 on the top face					
Getting a number 6 or less than 6 on the top face					

10. A die has six faces numbered from 1 to 6. It is rolled and the number on the top face is noted. When this is treated as a random trial.

a) What are the possible outcomes ?

b) Are they equally likely? Why?

c) Find the probability of a composite number turning up on the top face.

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13. A coin is tossed 100 times and the following outcomes are recorded

Head:45 times Tails:55 times from the experiment

a) Compute the probability of each outcomes.

b) Find the sum of probabilities of all outcomes.

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Head:45 times   Tails:55 times   from the experiment

a) Compute the probability of each outcomes.

b) Find the sum of probabilities of all outcomes.

15. A bag contains five green marbles, three blue marbles, two red marbles, and two yellow marbles. One marble is drawn out randomly.

a) Are the four different colour outcomes equally likely? Explain.

b) Find the probability of drawing each colour marble

i.e. , P(green), P(blue), P(red) and P(yellow)

c) Find the sum of their probabilities.

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c) Find the sum of their probabilities.

18. A letter is chosen from English alphabet.

Find the probability of the letters being

a) A vowel b) a letter that comes after P

c) A vowel or a consonant d) Not a vowel

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22. Eleven bags of wheat flour, each marked 5 kg, actually contained the following weights of flour (in kg) : 4.97, 5.05, 5.08, 5.03, 5.00, 5.06, 5.08, 4.98, 5.04, 5.07, 5.00 Find the probability that any of these bags chosen at random contains more than 5 kg of flour.

23. The probability is sure event is

24. The probability of an impossible event is

25. Define 'Equally likely outcomes'.

26. When you roll a die, What are the six possible outcomes?

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27. If you try to start a scooter , What are the possible outcomes?

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28. Write all the possible outcomes it three coins are tossed simultaneously.

29. A letter is chosen from English alphabet.

Find the probability of the letters being

a) A vowel b) a letter that comes after P

c) A vowel or a consonant d) Not a vowel

30. In An N.C.C. camp, there are 40 boys and 30 girls. The best cadet is to be chosen. What is the probability that the best cadet is a girl ?

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31. If A is an event such that P(A) = 0.45. then find P(not A).

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32. If the probability of winning a game is 0.9, what is the probability of loosing it?

33. A box contains 100 electric bulbs. Out of them, 10 are defective bulbs. One bulb is taken out at random from this box. What is the probability that it is a non-defective bulb?

34. Write one of the uses of probability in real life ?

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35. Define an 'event'.

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36. Write the words used in daily life to show the manner of chance and judgement.

> ▶

37. When you 'roll a die, find the probability of a composite number turning up on the top face.

38. A coin is tossed 3 times and the outcomes are recorded. How many possible outcomes are there?

39. If a coin is tossed three times, the total number of outcomes.

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40. If a coin is tossed three times, the probability of getting three heads.

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41. A bag contains 4 identical red balls and 3 identical black balls. A ball is taken at random. What is the probability that the ball drawn is black?

42. In a simultaneous throw of two coins, find the probability of getting exactly two heads

43. In a simultaneous throw of two coins, find the probability of getting at least one tail.

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44. A perfect cubic die is thrown, find the probability of getting a number greater than or equal to 3?

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45. You find "Rainbow" in the sky with different colours. What is the probability that one of its colours being black?

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46. A letter is chosen from the word "DICTIONARY". Find the probability of the letter being a letter comes after "L".

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47. There are four men and six women on the city council. If one council member is selected for a committee at random, how likely is it that it is a women?

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48. Tickets numbered from 1 to 18 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a prime number.

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49. Getting a 'head' when an unbiased coin is tossed is

    A. less likely

    B. equally likely

    C. more likely

    D. certain

Answer:

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50. When a die is thrown, getting a number more than 6 is

    A. less likely

    B. equally likely

    C. more likely

    D. impossible

Answer:

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51. The number of possible outcomes when a die is thrown is

A. 1

B. 4

C. 6

D. 4

Answer:

52. When two dice are thrown, the total outcomes are

A. 12

B. 6

C. 1

D. 36

Answer:

53. When a coin is tossed, the total possible outcomes are

A. 1

B. 2

C. 3

D. 4

Answer:

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54. The experiment in which all possible outcomes are known but exact outcome can't be predicted is called

    A. Random experiment

    B. Trial

    C. Even

    D. Outcome

Answer:

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55. The each outcome of a Random experiment is called

    A. event

    B. trial

    C. chance

    D. none

Answer:

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56. The probability of getting a head when a coin is tossed once is..............

A. 1

B. $\dfrac{1}{4}$

C. $\dfrac{1}{2}$

D. $\dfrac{1}{8}$

Answer:

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57. Six coins are tossed simultaneously . The probability of getting at least 4 heads is

A. $\dfrac{1}{2}$

B. $\dfrac{1}{4}$

C. $\dfrac{1}{6}$

D. $\dfrac{1}{8}$

Answer:

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58. What is the probability of getting exactly two heads, when three coins tossed simultaneously?

A. $\dfrac{1}{8}$

B. 8

C. $\dfrac{7}{8}$

D. `3/8

Answer:

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59. If two coins are tossed, the chance of getting no heads is

A. $\dfrac{3}{4}$

B. $\dfrac{1}{4}$

C. $\dfrac{1}{2}$

D. None

Answer:

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60. Sum of the probabilities of getting a head and a tall when an unbiased cotn is tossed is

A. $\dfrac{1}{2}$

B. $\dfrac{1}{4}$

C. 1

D. 0

Answer:

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61. Sum of probabilities of getting an even number and an odd number when a die is rolled in

A. $\dfrac{1}{2}$

B. $\dfrac{1}{6}$

C. $\dfrac{1}{3}$

D. 1

Answer:

62. The sum of the probabilities of all out comes of a Random experiment is always

A. 0

B. -1

C. 1

D. $\dfrac{1}{2}$

Answer:

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63. The probability is sure event is

A. 0

B. 1

C. -1

D. can't say

Answer:

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64. The probability of an impossible event is

A. 0

B. -1

C. 1

D. 2

Answer:

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65. Probability of an event lies between

..........and...............

A. 1 and 2

B. -1 and 1

C. -1 and 0

D. 0 and 1

Answer:

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66. The probability of drawing a prime number from a pack of cards numbered from 1 to 10

A. $\dfrac{2}{10}$

B. $\dfrac{1}{10}$

C. $\dfrac{5}{10}$

D. $\dfrac{2}{5}$

Answer:

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67. The probability of "the last day of a month is Sunday"

A. $\dfrac{2}{7}$

B. $\dfrac{1}{7}$

C. $\dfrac{3}{7}$

D. $\dfrac{4}{7}$

Answer:

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68. When a die is thrown, equally likely events

are getting

A. even number and odd number

B. prime and composite

C. multiple of 3 and multiple of 2

D. number less than 3 and number greater

than 3

Answer:

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69. Which of the following cannot be the probability of an event ?

A. 0.9

B. -1.5

C. 0.1

D. $2/5$

Answer:

70. A letter is chosen at random from the word "ROSE". Find the probability that the letter chosen is a vowel.

A. $\dfrac{1}{4}$

B. $\dfrac{3}{4}$

C. $\dfrac{1}{2}$

D. $\dfrac{2}{5}$

Answer:

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71. Two coins are tossed simultaneously. 'What is the number of all outcomes ?

A. 3

B. 4

C. 2

D. 1

Answer:

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72. Three coins are tossed simultaneously. What is the number of all possible outcomes?

A. 8

B. 6

C. 4

D. 2

Answer:

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73. The probability winning a prize is

A. 0

B. $\dfrac{1}{2}$

C. 2

D. 1

Answer:

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74. If probability of a certain event A is P(A) = x, then P'(A) is

A. $\dfrac{1}{x} - 1$

B. $1 - \dfrac{1}{x}$

C. $\dfrac{1}{x}$

D. 1-x

Answer:

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75. A die is thrown once. Find the probability of getting a number less than 3

A. $\dfrac{1}{2}$

B. $\dfrac{1}{3}$

C. $\dfrac{1}{4}$

D. $\dfrac{1}{6}$

Answer:

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76. Which of the following is true ?

A. $0 \leq P(A) \leq 1$

B. $P(A) > 1$

C. $P(A) < 0$

D. $-1 \leq P(A) \leq 1$

Answer:

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