MATHS

BOOKS - KALYANI MATHS (ASSAMESE ENGLISH)

PROBABILITY

Example

1. A number is selected from first 100 natural numbers. Find the probability that the number

is divisible by 7.

2. A die is thrown once what is the probability of getting a prime number?

3. A letter of English alphabet is chosen at random. Determine the probability that the chosen letter is a consonant.

4. A lot consists of 144 ball pens of which 20 are are defective and the other are good. Nila will buy a pen if it is good, but will not by if it is defective. The shopkeepers draws one pen at random and given to her. What is the probability that She will buy it.

5. A lot consists of 144 ball pens of which 20 are defective and the other are good. Nila will buy a pen if it is good, but will not buy if it is defective. The shopkeepers draws one pen at random and given to her. What is the probability that She will not buy it.

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6. 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.

7. 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 perfect square.

8. 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 not a perfect square.

9. 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 (iii) a number divisible by 5.

10. 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 number divisible by 7.

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11. 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 number divisible by 5 .

12. 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 prime number less than 30.

13. A box contains 3 blue, 2 white and 4 red balls. If A ball is drawn from the box what is the probability that the ball is not white.

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14. A bag contains 5 red balls and some blue balls. If the probability of drawing a blue ball from the bag is thrice that of a red ball, find the number of blue balls in the bag.

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15. Find the probability of getting 53 fridays in a leap year.

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

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17. Three unbiased coins are are tossed simultaneously. Find the probability of getting exactly two heads.

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18. Three unbiased coins are are tossed simultaneously. Find the probability of getting at must two heads.

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19. Two dice are thrown simultaneously. What is the probability of getting 9 as sum of two numbers that turns up.

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20. Two dice are thrown simultaneously. What is the probability of getting The sum of two numbers that turns up greater that 9.

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21. Two dice are thrown simultaneously. What is the probability of getting The sum of two numbers that turns up less than 9.

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22. Two dice are thrown simultaneously. What is the probability of getting a doublet.

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23. What is the probability that the two friends have the same birth day.

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24. What is the probability that the two friends have different birth day (ignoring a leap year).

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Exercise

1. a number is selected from 1,2,3,....,15. what is the probability that the number is a multiple of 4

2. if a letter is chosen at random from the 'SECONDARY' what is the probability that it is a vowel.

3. if a letter is chosen at random from the 'SECONDARY' what is the probability that it is a consonant

4. a die is thrown once. What is the probability of getting an even number

5. a die is thrown once. What is the probability of getting a number greater than 3.

6. A bag contains 9 black balls and 12 white balls. one ball is drawn at random. what is the probability that the ball drawn is a black ball.

7. a lot consist of 100 ball pens of which 16 are defective and others are good Subhana will buy a pen if it is good but will not buy if it is defective the shopkeeper draw one pen at random and given to her what is the probability that she will buy it

8. a lot consist of 100 ball pens of which 16 are defective and others are good Subhana will

buy a pen if it is good but will not buy if it is defective the shopkeeper draw one pen at random and given to her what is the probability that she will not buy it.

9. A carton consist of 100 shirt of which 88 are good, 8 have minor defects and 4 have major defects. Jimmy, a trader will only accept the shirt which are good, but Sujatha another trader will only reject the shirt which have

major defect. 1 shirt is drawn at random from the carton what is the probability that acceptable to Jimmy

10. A carton consist of 100 shirt of which 88 are good, 8 have minor defects and 4 have major defects. Jimmy, a trader will only accept the shirt which are good, but Sujatha another trader will only reject the shirt which have major defect. 1 shirt is drawn at random from

the carton what is the probability that it is

acceptable to Sujatha

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11. a bag contains ticket number 11,12,....,30. it is

taken out from the bag at random find the

probability that the number on the drawn

ticket it is is multiple of 7

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12. a bag contains ticket number 11,12,....,30. it is taken out from the bag at random find the probability that the number on the drawn ticket is greater than 15 and multiple of 5

13. cards marked with 3,4,5,....,50 are placed in a box and mixed throughly. one card is drawn at random from the box find the probability that number on the drawn card is divisible by 7

14. cards marked with 3,4,5,....,50 are placed in a box and mixed throughly. one card is drawn at random from the box find the probability that number on the drawn card is number which is a perfect square

15. cards marked with numbers 1, 2,3,.....,25 are placed in a box and mixed thoroughly and

card is drawn at random from the box what is the probability that the number of the card is a prime number

16. cards marked with numbers 1, 2,3,.....,25 are placed in a box and mixed thoroughly and card is drawn at random from the box what is that the number of the card is a multiple of 3 or 5

17. cards marked with numbers 1, 2,3,.....,25 are placed in a box and mixed thoroughly and card is drawn at random from the box what is that the number of the card is an odd number

18. cards marked with numbers 1, 2,3,.....,25 are placed in a box and mixed thoroughly and card is drawn at random from the box what is

the probability that the card is an odd number

neither divisible by 5 or by 10

19. A bag contain 4 red balls 5 black balls and 6

white balls. if one ball is drawn at random find

the probability that the ball drawn is white

20. A bag contain 4 red balls 5 black balls and 6 white balls. if one ball is drawn at random find the probability that the ball drawn is red

21. A bag contain 4 red balls 5 black balls and 6 white balls. if one ball is drawn at random find the probability that the ball drawn is not black

22. A bag contain 4 red balls 5 black balls and 6 white balls. if one ball is drawn at random find the probability that the ball drawn is red or white

23. a bag contains 7 red 5 white and 3 black balls. A ball is drawn at random from the bag find the probability that the drawn ball is red or white

24. a bag contains 7 red 5 white and 3 black balls. A ball is drawn at random from the bag find the probability that the drawn bell is not black

25. a bag contains 7 red 5 white and 3 black balls. A ball is drawn at random from the bag

find the probability that the drawn bell is neither white nor black

26. A bag contains red balls and some blue balls. If the probability of drawing a blue ball is double that of a red ball, determine the number of blue balls in the bag.

27. A bag contains 5 red balls and some Blue balls if the probability of drawing a blue ball from the bag is four times that of a red ball find the number of blue balls in the bag

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28. find the probability of getting 53 Sundays in a leap year.

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

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30. Three unbiased coins are are tossed simultaneously. Find the probability of getting exactly two heads.

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31. two unbiased coins are tossed simultaneously find the probability of getting exactly two tails

▶ **Watch Video Solution**

32. two unbiased coins are tossed simultaneously find the probability of getting exactly one tail

▶ **Watch Video Solution**

33. two unbiased coins are tossed simultaneously find the probability of getting at least one head

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34. two dice are thrown simultaneously find the probability of getting the sum greater than or equal to 10

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35. two dice are thrown simultaneously find the probability of getting the sum as an odd number

36. two dice are thrown simultaneously find the probability of getting a number greater than 4 on each die

37. two dice are thrown simultaneously find the probability of getting total at most 5

38. two dice are thrown simultaneously complete the table.

Event: Sum of the numbers appearing in the 2 dice	6	7	8	9	10	11	12
Probability							

39. it is given that in a group of 3 students the probability that 2 students are not having the same birthday is 0.992. what is the probability that the two students have the same birthday.

40. A card is drawn at random from a well-shuffled Deck of 52 cards find the probability that the card drawn is a king or a Jeck

41. A card is drawn at random from a well-shuffled Deck of 52 cards find the probability that the card drawn is non ace

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42. A card is drawn at random form of will shuffled Deck of 52 cards find the probability that the card drawn is red card

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43. A card is drawn at random from a well-shuffled Deck of 52 cards find the probability that the card drawn neither a king nor a queen

44. the king queen and jack of diamond are removed from a pack of 52 cards and the pack is well shuffled. a card is drawn from the remaining cards. find the probability of getting of a diamond

45. the king queen and jack of diamond are removed from a pack of 52 cards and the pack is well shuffled. a card is drawn from the remaining cards. find the probability of getting of a Jack

46. All the three face cards of spades are removed from a well shuffled pack of 52 cards.A card is drawn at random from the remaining pack find the probability of getting a black face card

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47. All the three face cards of spades are removed from a well shuffled pack of 52 cards.A card is drawn at random from the

remaining pack find the probability of getting

are queen

48. All the three face cards of spades are removed from a well shuffled pack of 52 cards.A card is drawn at random from the remaining pack find the probability of getting a black card

49. If P(E) =0.05, what is the probability of not 'E'?

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50. A die is thrown once, find the probability of getting a number greater than 5.

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51. a card is drawn from a well shuffled pack of 52 cards. what is the probability that it is an ace.

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52. two friends were born in the year 2000. what is probability that they have the same birthday.

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53. a boy contains cards marked with numbers 5 to 20. A card is drawn from the bag at the random. find the probability of getting a number which is a perfect square.

54. The probability of a sure event is _____

55. fill in the blanks

the probability of null event is ....

56. fill in the blanks

$$P(E) + P(\overline{E}) = \text{.......}$$

57. fill in the blanks

total number of face card in a pack of 52 card is ....

58. fill in the blanks

the probability that a number selected at random from number 3, 4, 5,...25 is a prime number is ....

59. Two dice are thrown simultaneously. What is the probability of getting a doublet.

A. $\dfrac{3}{5}$

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

C. $\dfrac{6}{7}$

D. $\dfrac{5}{6}$

Answer:

60. the probability of getting a Rotten mango from a lot of 250 is 0.048. the number of rotten mango in a lot is

A. 12

B. 9

C. 21

D. 15

Answer:

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61. which of the following cannot be probability of an event?

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

B. -1.8

C. $20\ \%$

D. 0.7

Answer:

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62. in tossing 3 coins, the probability of getting at least 2 tails is

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

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

C. $\dfrac{5}{6}$

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

Answer:

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63. A number is selected from numbers 1 to 25.

The probability that it is prime is ____

A. $\dfrac{4}{25}$

B. $\dfrac{6}{25}$

C. $\dfrac{1}{5}$

D. $\dfrac{9}{25}$

Answer: