



# MATHS

## BOOKS - VGS BRILLIANT MATHS (TELUGU ENGLISH)

### PROBABILITY

#### Examples

1. Find the probability of getting a head when a coin is tossed once. Also find the probability

of getting a tail.



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2. A bag contains a red ball, a blue ball and an yellow ball, all the balls being of the same size . Manasa takes out a ball from the bag without looking into it. What is the probability that she takes a (i) yellow ball? (ii) red ball? (iii) blue ball?



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3. Suppose we throw a dice once. What is the probability of getting a number greater than 4?



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4. Suppose we throw a dice once. What is the probability of getting a number less than or equal to 4?



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5. One card is drawn from a well-shuffled deck of 52 cards. Calculate the probability that the card will be an ace.



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6. One card is drawn from a well-shuffled deck of 52 cards. Calculate the probability that the card will not be an ace.



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7. Sangeeta and Reshma , play a tennis match.

It is known that the probability of sangeeta winning the match is 0.62. What is the probability of Reshma winning the match?



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8. Sarada and Hamida are friends. What is the probability that both will have different birthdays?



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**9.** Sarada and Hamida are friends. What is the probability that both will have the same birthday?(ignoring a leap year)



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**10.** There are 40 students in Class X of a school of whom 25 are girls and 15 are boys. The class teacher has to select one student as a class representative. She writes the name of each student on a separate cards, the cards being

identical . Then she puts cards in a box and stirs them thoroughly. She then draws one card from the box. What is the probability that the name written on the card is the name of a girl



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**11.** There are 40 students in Class X of a school of whom 25 are girls and 15 are boys. The class teacher has to select one student as a class representative. She writes the name of each

student on a separate cards, the cards being identical . Then she puts cards in a box and stirs them throughly. She then draws one card from the box.What is the probability that the name written on the card is the name of a boy?



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**12.** A box contains 3 blue,2 white and 4 red marbles. IF a marble is drawn at random from



the box, what is the probability that it will be white?



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**13.** A box contains 3 blue, 2 white and 4 red marbles. IF a marble is drawn at random from the box, what is the probability that it will be blue?



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**14.** A box contains 3 blue, 2 white and 4 red marbles. IF a marble is drawn at random from the box, what is the probability that it will be red?



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**15.** Harpreet tosses two different coins simultaneously (say, one is of Rs1 and other of Rs2). What is the probability that she gets at least one head?





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



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**17.** A missing helicopter is reported to have crashed somewhere in the rectangular region as shown in the figure. What is the probability that it crashed inside the lake shown in the figure?



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**18.** A cartoon consists of 100 shirts of which 88 are good, 8 have minor defects and 4 have

major defects. Jhony, a trader, will only accept the shirts which are good, but Sujatha, another trader, will only reject the shirts will have major defects. One shirt is selected at random from the carton. What is the probability that it is acceptable to Jhony?



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**19.** A carton consists of 100 shirts of which 88 are good, 8 have minor defects and 4 have major defects. Jhony, a trader, will only accept

the shirts which are good, but Sujatha, another trader, will only reject the shirts will have major defects. One shirt is selected at random from the carton. What is the probability that it is acceptable to Sujatha?



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**20.** Two dice, one red and one white , are thrown at the same time. Write down all the possible outcomes. What is the probability

that the sum of the two numbers appearing on the top of the dice is 8?



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21. Two dice, one red and one white , are thrown at the same time. Write down all the possible outcomes. What is the probability that the sum of the two numbers appearing on the top of the dice is 13?



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22. Two dice, one red and one white , are thrown at the same time. Write down all the possible outcomes. What is the probability that the sum of the two numbers appearing on the top of the dice is less than or equal to 12?



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**Try This**



1. A child has a dice whose six faces show the letters A,B,C,D,E and F. The dice is thrown once.

What is the probability of getting A?



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2. A child has a dice whose six faces show the letters A,B,C,D,E and F. The dice is thrown once.

What is the probability of getting D?



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

2.3



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

-1.5



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

(A)  $\frac{2}{3}$  (B)  $-1.5$  (C)  $15\%$  (D)  $0.7$



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

$0.7$



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7. You have a single deck of well shuffled cards.

Then,

What is the probability that the card drawn will be a queen?



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8. What is the probability that it is face card?



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9. What is the probability that it is a spade?



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10. What is the probability that is the face card of spades?



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11. What is the probability it is not a face card?



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## Exercise 13 1

1. Complete the following statements:

Probability of an event  $E$  + Probability of the event 'not  $E$ ' = \_\_\_\_\_.



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2. Complete the following statements:

The probability of an event that cannot

happen is \_\_\_\_\_.

Such as event is called an \_\_\_\_\_.



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**3. Complete the following statements:**

The probability of an event that is certain to happen is \_\_ such an event is called \_\_\_\_\_.



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4. Complete the following statements:

The sum of the probabilities of all the elementary events of an experiments is \_\_\_.



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5. Complete the following statements:

The probability of an event is greater than or equal to \_\_\_\_\_ and less than or equal to \_\_\_\_\_.



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6. Which of the following experiments have equally likely outcomes? Explain.

A driver attempts to start a car. The car starts or does not start.



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7. Which of the following experiments have equally likely outcomes? Explain.

A player attempts to shoot a basket-ball. She/HE shoots or misses the shot.



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8. Which of the following experiments have equally likely outcomes? Explain.

A trial is made to answer a true -false question. The answer is right or wrong.



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9. Which of the following experiments have equally likely outcomes? Explain.

A baby is born. IT is a boy or a girl.



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10. IF  $P(E) = .05$ , what is the probability of 'not E'?



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11. A bag contains lemon flavoured candies only. Malini takes out one candy without looking into the bag what is the probability that she takes out an orange flavoured candy?



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12. A bag contains lemon flavoured candies only. Malini takes out one candy without looking into the bag what is the probability that she takes out a lemon flavoured candy?



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**13.** Rahim removes all the hearts from the cards. What is the probability of picking out an ace from the remaining pack.



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**14.** Rahim removes all the hearts from the cards. What is the probability of picking out a diamond.



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**15.** Rahim removes all the hearts from the cards. What is the probability of picking out a card that is not a heart.



**Watch Video Solution**

**16.** Rahim removes all the hearts from the cards. What is the probability of Picking out the ace of hearts.



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**17.** It is given that in a group of 3 students, the probability of 2 students not having the same birthday is 0.992. What is the probability that the 2 students have the same birthday?



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**18.** A die is thrown once. Find the probability of getting a prime number,



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**19.** A die is thrown once. Find the probability of getting a number lying between 2 and 6.



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**20.** A die is thrown once. Find the probability of getting an odd number.



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21. What is the probability of drawing out a red king from a deck of cards?



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22. In a bag there are 3 blue and 6 black balls one ball is drawn at random the probability of getting blue ball is



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1. A bag contains 3 red balls and 5 black balls. A ball is drawn at random from the bag. What is the probability that the ball drawn is red?



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2. A bag contains 3 red balls and 5 black balls. A ball is drawn at random from the bag. What is the probability that the ball drawn is not red?



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3. A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be red?



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4. A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is

taken out of the box at random. What is the probability that the marble taken out will be white?



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5. A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be not green?



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6. A kiddy bank contains hundred 50p coins, fifty Rs1 coins, twenty Rs2 coins and ten Rs5 coins. IF it is equally likely that one of the coins will fall out when the bank is turned upside down, what is the probability that the coin will be a 50p coins?



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7. A kiddy bank contains hundred 50p coins, fifty Rs1 coins, twenty Rs2 coins and ten Rs5

coins. IF it is equally likely that one of the coins will fall out when the bank is turned upside down, what is the probability that the coin will not be a 50 p coin?



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**8.** Gopal buys a fish from a shop for his aquarium. The shopkeeper takes out one fish at random from a tank containing 5 male fish and 8 female fish (See figure). What is the probability that the fish taken out is a male

fish?



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9. A game of chance consists of spinning an arrow which comes to rest pointing at one of the numbers 1,2,3,4,5,6,7,8 (See figure), and these are equally likely outcomes. What is the probability that it will point at (i) 8 ? (ii) an odd number? (iii) a number greater than 2?

(iv) a number less than 9?



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**10.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting a king of red colour?



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**11.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting a face card?



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**12.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting a red face card?



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**13.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting the jack of hearts?



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**14.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting a spade?



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**15.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting the queen of diamonds?



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**16.** Five cards -the ten , jack queen, king and ace of diamond, are well shuffled with their face downwards. One card is then picked up at random.

What is the probability that the card is the queen?



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17. Five cards -the ten , jack queen, king and ace of diamond, are well shuffled with their face downwards. One card is then picked up at random.

IF the queen is drawn and put aside, what is the probability that the second card picked is

(a) a ace? (b) a queen?



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**18.** 12 defective pens are accidentally mixed with 132 good ones. IT is not possible to just look at a pen and tell whether or not it is defective. One pen is taken out at random from this lot. Determine the probability that the pen taken out is a good one.



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**19.** A lot of 20 bulbs contain 4 defective ones. One bulb is drawn at random from the lot.

What is the probability that this bulb is defective? Suppose the bulb is drawn is previous case is not defective and is not replaced. Now one bulb is drawn at random from the rest. What is the probability that this bulb is not defective?



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**20.** 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?



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**21.** 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 number.



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**22.** 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.



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**23.** Suppose you drop a die at random on the rectangular region shown in figure. What is the probability that it will land inside the circle



with diameter 1m?



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**24.** A lot consists of 144 ball pens of which 20 are defective and the others are good. The shopkeeper drawn one pen at random and gives it to Sudha. What is the probability that She will buy it?



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**25.** A lot consists of 144 ball pens of which 20 are defective and the others are good. The shopkeeper drawn one pen at random and gives it to Sudha. What is the probability that She will not buy it?



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**26.** In a bag there are 2 blue and 2 black balls one ball is drawn at random the probability of getting black ball is



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27. Two dice are rolled simultaneously and counts are added

A student argues that there are 11 possible outcomes 2,3,4,5,6,7,8,9,10,11 and 12. Therefore, each of them has a probability  $\frac{1}{11}$ . Do you agree with this argument? Justify your answer.



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**28.** A game consists of tossing a one rupee coin 3 times and noting its outcome each time. Hanif wins if all the tosses give the same result i.e, three heads or three tails, and loses other-wise. Calculate the probability that Hanif will lose the game.



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**29.** A dice is thrown twice. What is the probability that (i) 5 will not come up either

time? (ii) 5 will come up atleast once? [Hint: Throwing a dice twice and throwing two dice simultaneously are treated as the same experiment].



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## Optional Exercise

1. Two customers Shyam and Ekta are visiting a particular shop in the same week (Tuesday to

Saturday). Each is equally likely to visit the shop on the same day?



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2. Two customers Shyam and Ekta are visiting a particular shop in the same week (Tuesday to Saturday). Each is equally likely to visit the shop on the consecutive days?



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3. Two customers Shyam and Ekta are visiting a particular shop in the same week (Tuesday to Saturday). Each is equally likely to visit the shop on the different days?



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4. A bag contains 5 red balls and some blue balls, If the probability of drawing a blue ball is double that of a red ball, Find the number of blue balls in the bag.





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5. A box contains 12 balls out of which  $x$  are black, IF one ball is drawn at random from the box, what is the probability that it will be a black ball? If 6 more black balls are put in the box, the probability of drawing a black ball is now double of what it was before Find  $x$ .



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6. A jar contains 24 marbles, some are green and others are blue. IF a marble is drawn at random from the jar, the probability that it is green is  $\frac{2}{3}$ . Find the number of blue marbles in the jar.



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**Par A Observation Material To Solve Various Question Given In The Public Examination 1 Mark**

1. IF  $P(E) = \frac{3}{4}$  what is the probability of "not E"?



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2. You are writing a test of 40 objective type questions. Each question carries 1 mark. What is the probability of marks you may get to be in multiple of 5?



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3. A page is opened at random from a book containing 100 pages. Find the probability that the page number is a perfect square.



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4. IF  $P(E)=0.546$ , what is the probability of "not E"?



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5. When die is rolled once unbiased what is the probability of getting a multiple of 3 out of possible outcomes?



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6. The probability of an event is always in between 0 and 1. Why?



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7. Find is the probability of throwing a total score of 7 with two dice.



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8. Find the probability of getting a prime number, when a card drawn at random from the numbered cards from 1 to 25.



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**9.** From the first 50 natural numbers, find the probability of randomly selected number is a multiple of 3.



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**10.** When a dice is rolled, the probability of getting a composite number is.....



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



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**12.** A box contains 3 blue and 4 red balls, What is the probability that the ball taken out randomly will be red?



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## Part A Observation Material To Solve Various Questions Given In The Public Examination 2 Mark

1. A bag contains 5 red and 8 white balls. If a ball is drawn at random from the bag. What is the probability that it will be

(i) white ball (ii) not to be white ball.



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2. There are 5 cards in a box with numbers 1 to 5 written on them, If 2 cards are picked out



from the box, write all the possible outcomes and find the probability of getting both even numbers.



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3. IF a die is rolled, then the probability of getting an even number is.....



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4. A die is thrown once. Find the probability of getting an odd prime number.



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5. There are 12 red, 18 blue and 6 white balls in a box, when balls is drawn at random from the box, what is the probability of not getting a red ball?



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6. When a card is drawn from a well shuffled deck of 52 cards, then find the probability of NOT getting a red faced card.



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7. There are 5 red balls, 4 green balls and 6 yellow balls in a box. IF a ball is selected at random, what is the probability of not getting a yellow ball?



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8. One card is selected from a well shuffled deck of 52 cards. Find the probability of getting a red card with prime number.



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9. From the following data. Find the probability of selecting 'B' blood group student .





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10. What is the probability of a number picked from first twenty natural numbers is even composite number?



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**Par A Observation Material To Solve Various Question Given In The Public Examination 4 Mark**

1. From a deck of 52 playing cards, king , Ace and 10 of clubs were removed and remaining cards were well shuffled. IF a card is drawn at random from the remaining , find the probability of getting a card of Club



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2. From a deck of 52 playing cards, king , Ace and 10 of clubs were removed and remaining

cards were well shuffled. IF a card is drawn at random from the remaining , find the probability of getting a card of

Ace



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**3.** From a deck of 52 playing cards, king , Ace and 10 of clubs were removed and remaining cards were well shuffled. IF a card is drawn at random from the remaining , find the

probability of getting a card of

Diamond king



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4. From a deck of 52 playing cards, king , Ace and 10 of clubs were removed and remaining cards were well shuffled. IF a card is drawn at random from the remaining , find the probability of getting a card of Club 5.



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5. A bag contains 20 discs, which are numbered from 1 to 20. If one disc is drawn at random from the bag, find the probability that it bears:  
  
an even number.



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6. A bag contains 20 discs, which are numbered from 1 to 20. If one disc is drawn at random from the bag, find the probability that

it bears:

Prime number.



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7. A bag contains 20 discs, which are numbered from 1 to 20. If one disc is drawn at random from the bag, find the probability that it bears:

Multiple of 5.



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8. A bag contains 20 discs, which are numbered from 1 to 20. If one disc is drawn at random from the bag, find the probability that it bears:

Two digit odd number.



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9. There are 100 flash cards labelled from 1 to 100 in a bag. When a card is drawn from the bag at random, what is the probability of getting.....

a card with prime number from possible outcomes?



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**10.** There are 100 flash cards labelled from 1 to 100 in a bag. When a card is drawn from the bag at random, what is the probability of getting.....

a card without prime number from possible outcomes?



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11. A shopkeeper has 100 memory cards in a box. Among them, 15 memory cards are defective. When a person came to the shop to buy a memory card, the shopkeeper drew a memory card at random from the box. Then, what is the probability that this memory card is defective?



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12. A shopkeeper has 100 memory cards in a box. Among them 15 memory cards are defective when a person came to the shop to buy a memory card, the shopkeeper draws a memory card at random from the box then (i) What is the probability that the memory card is defective? (ii) After drawing the first memory card which is defective, it is not placed back in the box. Then what is the probability that this memory card is not defective.



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**13.** A bag contains 5 red balls and some blue balls, If the probability of drawing a blue ball is double that of a red ball, Find the number of blue balls in the bag.



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**14.** Two dice are rolled at same time and the sum of the numbers appearing on them is noted. Find the probability of getting each sum from 3 to 5 separately.





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**15.** A bag contains some square cards. A prime number between 1 and 100 has been written on each card. Find the probability of getting a card that the sum of the digits of prime number written on it, is 8.



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**16.** From the deck of 52 cards, if a card is randomly chosen , find the probability of



getting a card with a prime number on it?



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**17.** From the deck of 52 cards, if a card is randomly chosen , find the probability of getting a card with face on it?



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**18.** Two dice are thrown at the same time what is the probability that the sum of two

numbers appearing on the top of the dice is 10.



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**19.** Two dice are thrown at the same time what is the probability that the sum of two numbers appearing on the top of the dice is less than or equal to 12.



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20. Two dice are thrown at the same time what is the probability that the sum of two numbers appearing on the top of the dice is a prime number.



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21. Two dice are thrown at the same time what is the probability that the sum of two numbers appearing on the top of the dice is multiple of 3?





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## Creative Question For Cce Model Examination

1. There are 3 red and 4 white balls in a bag. If a ball is taken randomly then calculate the probability of it to be a red ball.



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2. There are 3 red and 4 white balls in a bag. If a ball is taken randomly then calculate the

probability of it to be a white ball.



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**3.** Find the probability of existing 53 sundays in a common year.



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**4.** In a skinner numbered from 1-20, find the probability of getting of following prime number.



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5. In a skinner numbered from 1-20, find the probability of getting of following composite number.



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6. In a skinner numbered from 1-20, find the probability of getting of following multiple of three.



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7. When a six face die is rolled find the probability of getting the following getting less than five.



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8. When a six face die is rolled find the probability of getting the following getting more than five.



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**9.** In a bag there are 3 red and 3 black balls one ball is drawn at random the probability of getting red ball is



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**10.** In a 50 marks examination, there is 80% possibility to pass in that exam. So find the probability for pass in exam.



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**11.** In a class 32 students out of 60 take tea. So find the probability of choosing randomly a student who doesn't take tea.



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**12.** In a bag there are 3 red and 8 black balls one ball is drawn at random the probability of getting red ball is



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## Part B Observation Bits To Solve Various Bits Given In The Public Examination

1. Karishma and Reshma are playing chess. The probability of winning Karishma is 0.59. Then probability of Reshma winning the match is.....

A. 1

B. 0.46

C. 0.5

D. 0.41

**Answer: D**



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2. Vinneta said that probability of impossible events is 1, Dhanalakshmi said that probability of sure event is '0' and Sireesha said that probability of any event lies in between 0 and 1. In the above with whom will you agree?

A. Vineeta

B. Dhanalakshmi

C. Sireesha

D. All the three

**Answer: C**



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**3.** A page is opened at random from a book containing 90 pages. Then the probability of a page number is a perfect square is.....

A.  $\frac{90}{90}$

B.  $\frac{2}{90}$

C.  $\frac{1}{10}$

D. None

**Answer: C**



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**4.** In a bag there are 3 blue and 2 black balls one ball is drawn at random the probability of getting blue ball is

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

B.  $\frac{3}{3}$

C.  $\frac{5}{5}$

D.  $\frac{5}{3}$

**Answer: A**



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5. What is the probability of drawing out a red king from a deck of cards?

A.  $\frac{1}{3}$

B.  $\frac{1}{26}$

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

D. 1

**Answer: B**



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**6.** Getting a prime or composite number is a .....event.

A. mutually exclusive

B. equally likely

C. 0

D. None

**Answer: A**



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



A. 0

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

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

D. 1

**Answer: B**



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**8.** Which one of the following can not be the probability of an event?

A. 0.7

B.  $\frac{2}{3}$

C. -1.5

D.  $\frac{4}{5}$

**Answer: C**



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9. IF  $P(E) = 0.26$ , then  $P(\overline{E}) = \dots\dots\dots$

A. 0.74

B. 0

C. 0.26

D. 1

**Answer: A**



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**10.** Probability of getting 7, when a dice is rolled, is.....

A.  $\frac{1}{6}$

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

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

D. 0

**Answer: D**



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**11.** Which of the following situations have equally likely events?

1) getting 1 or 2 or 3 or 4 or 5 or 6 when a dice is rolled

2) Winning or loosing a game

3) Head or Tail, when a coin is tossed

A. 1 and 2

B. 2 and 3

C. 1 and 3

D. All

**Answer: D**



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12. The probability of picking a letter from the set of English alphabets is  $\frac{5}{26}$ . The alphabet can be.....

- A. consonant
- B. vowel
- C. any alphabet
- D. None

**Answer: B**



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13. IF a die is rolled, then the probability of getting a prime number is.....

A.  $\frac{2}{5}$

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

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

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

**Answer: C**



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

15%

A. 0.2

B.  $\frac{2}{5}$

C. 0.72

D.  $1.\bar{3}$

**Answer: D**



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15. From a deck of cards, a card is drawn at random, then the probability of getting a red king is.....

A.  $\frac{1}{13}$

B.  $\frac{3}{14}$

C.  $\frac{3}{26}$

D.  $\frac{1}{26}$

**Answer: D**



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16. IF  $P(E) = 1$ , then  $P(\bar{E}) = \dots\dots\dots$

A. 0

B. 1

C.  $\frac{2}{3}$

D.  $\frac{3}{2}$

**Answer: A**



**Watch Video Solution**

17. When a die is rolled, the probability of getting an odd prime number is .....

A.  $\frac{1}{3}$

B.  $\frac{2}{3}$

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

D. 3

**Answer: A**



**Watch Video Solution**

18. The probability that the sum of two numbers appearing on the top of the dice is 13, when two dice are rolled at the same time is.....

A. -1

B. 1

C. 2

D. 0

**Answer: D**



**Watch Video Solution**

19. IF  $P ( E ) = 0.05$ , then  $P ( \bar{E} ) = \dots\dots\dots$

A. 0.5

B. 0.95

C. 9.5

D. 0.095

**Answer: B**



**Watch Video Solution**

20. Which of the following be the probability of an event?

A. -1.5

B. 0.7

C. -2.4

D. -1.15

**Answer: D**



**Watch Video Solution**

21.  $P(E) = 0.65$  then  $P(\bar{E}) = \dots\dots$

A. 0.25

B. 1

C. 0.35

D. 0

**Answer: C**



**Watch Video Solution**

22. IF  $P(E) = 0.82$  then  $P(\bar{E}) = \dots\dots$

A. 0.18

B. 0.28

C. 0.38

D.  $P(E) = P(\bar{E})$

**Answer: A**



**Watch Video Solution**

**23.** Let  $E, \bar{E}$ , be the complimentary events, in a random experiment , then which of the following is true?



A.  $P(E) + P(\bar{E}) = 2$

B.  $P(E) + P(\bar{E}) = 3$

C.  $P(\bar{E}) + P(E) = 1$

D.  $P(\bar{E}) + P(E) = 4$

**Answer: C**



**Watch Video Solution**

**24.** Which one of the following cannot be the probability of an event?

A.  $\frac{2}{3}$

B.  $\frac{4}{5}$

C. 0.7

D.  $-\frac{5}{4}$

**Answer: D**



**Watch Video Solution**

**25.** On random selection, the probability of getting a composite number among the numbers from 51 to 100.

A.  $\frac{4}{5}$

B.  $\frac{1}{5}$

C.  $\frac{3}{5}$

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

**Answer: A**



**Watch Video Solution**

**26.** Let  $E$ , and  $\overline{E}$ , be the complimentary events.

IF  $P(\overline{E})=0.65$  then  $P(E)=\dots\dots\dots$

A. 0.40

B. 0.45

C. 0.35

D. 0.30

**Answer: D**



**Watch Video Solution**

27. At what value of 'x',  $\frac{5}{x}$  may possible probability of an event?

A. 2

B. 1

C. 6

D. 4

**Answer: C**



**Watch Video Solution**

**28.** IF  $P ( E )$  is the probability of an event  $E$ ,  
then.....

A.  $0 < P(E) < 1$

B.  $0 \leq P(E) < 1$

C.  $0 \leq P(E) \leq 1$

D.  $0 < P(E) \leq 1$

**Answer: C**



**Watch Video Solution**

**29.** The probability of getting right answer to a question is 0.68, the probability of getting a wrong answer is .....

A. 0.32

B. 0.32

C. 32

D. A and B

**Answer: D**



**Watch Video Solution**

**Creative Bits For Cce Model Examination**

1. Two fair dice are rolled and the face values are added. The probability of getting an odd number greater than 8 is .....

A.  $\frac{2}{9}$

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

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

D.  $\frac{1}{9}$

**Answer: B**



**Watch Video Solution**



2. A jar contains 3 mangoes and  $x$  guavas. Two fruits are pulled from the jar without replacement. An expression that represents the probability one fruit is mango and the next fruit is guava is.....

A.  $\left(\frac{3}{x+3}\right)\left(\frac{x-1}{x+2}\right)$

B.  $\left(\frac{3}{x+3}\right)\left(\frac{x}{x+2}\right)$

C.  $\left(\frac{3}{x+3}\right)\left(\frac{x-1}{x-2}\right)$

D.  $\frac{3 \times 2}{(x+3)(x+2)}$

**Answer: B**



Watch Video Solution

3. A card is pulled from a deck of 52 cards, The probability of obtaining a club is

A.  $\frac{1}{3}$

B.  $\frac{13}{26}$

C.  $\frac{2}{11}$

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

**Answer: D**



4. Three different greetings cards and their corresponding covers are randomly strewn about on a table. IF Sita puts the greetings cards into the covers at random, the probability of correctly matching of all the greeting cards and covers is .....

A.  $\frac{5}{6}$

B.  $\frac{2}{3}$

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

D.  $\frac{1}{9}$

**Answer: C**



**Watch Video Solution**

5. When a coin is tossed, the probability of getting a head is.....

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

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

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

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

**Answer: A**



**Watch Video Solution**

**6.** IF a die is rolled, then the probability of getting an even number is.....

A.  $\frac{1}{6}$

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

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

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

**Answer: C**



**Watch Video Solution**

7. IF two dice are rolled at a time then the probability that the two faces show different numbers is

A.  $\frac{1}{6}$

B.  $\frac{35}{36}$

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

D.  $\frac{1}{36}$

**Answer: C**



**Watch Video Solution**

**8.** Find the probability of getting the same number on the both the dice when two dice are thrown.

A.  $\frac{1}{6}$

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

C.  $\frac{1}{12}$

D.  $\frac{1}{3}$

**Answer: A**



**Watch Video Solution**

9. The probability of getting a number less than 5 when a die is rolled is

A.  $\frac{4}{5}$



B.  $\frac{2}{3}$

C.  $\frac{3}{6}$

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

**Answer: B**



**Watch Video Solution**

**10.** IF a card is drawn from a pack the probability that it is a king is

A.  $\frac{1}{13}$

B.  $\frac{1}{52}$

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

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

**Answer: A**



**Watch Video Solution**

**11.** A card is pulled from a deck of 52 cards, The probability of obtaining a club is

A.  $\frac{1}{52}$

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

C.  $\frac{1}{13}$

D.  $\frac{1}{26}$

**Answer: B**



**Watch Video Solution**

**12.** In a lucky dip of 30 tokens, Gopi purchased two tokens . Then the probability of getting the first prize is

A.  $\frac{1}{30}$

B.  $\frac{2}{30}$

C.  $\frac{3}{30}$

D.  $\frac{2}{15}$

**Answer: B**



**Watch Video Solution**

**13.** IF a ball is drawn at random from a box containing 11 red balls,6 white balls and 9

green balls then, the probability that the ball  
is not green is

A.  $\frac{9}{26}$

B.  $\frac{17}{26}$

C.  $\frac{11}{26}$

D.  $\frac{6}{26}$

**Answer: B**



**Watch Video Solution**

14. A box contains pencils and pens. The probability of picking out a pen at random is 0.65. Then the probability of not picking a pen is

A. 0.45

B. 0.55

C. 0.65

D. 0.35

**Answer: D**



Watch Video Solution

15. Which of the following are equally likely events?

A. Getting a head or tail is tossing a coin

B. In a throw of a die, getting prime or composite number

C. Drawing a number card from 1-50, a number divisible by 6 or 8.

D. Picking a heart or black card from a deck  
of playing cards.

**Answer: A**



**Watch Video Solution**

**16.** In a simultaneous toss of two coins,  
probability of no tails is

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

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



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

D.  $\frac{3}{4}$

**Answer: D**



**Watch Video Solution**

**17.** In a simultaneous toss of two coins, the probability of at least one head is

A.  $\frac{1}{3}$

B.  $\frac{2}{4}$

C.  $\frac{3}{4}$

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

**Answer: C**



**Watch Video Solution**

**18.** In a single thrown of two dice, the probability of getting a total of 12 is

A.  $\frac{1}{18}$

B.  $\frac{1}{36}$

C.  $\frac{1}{9}$

D.  $\frac{1}{12}$

**Answer: B**



**Watch Video Solution**

**19.** In a single throw of two dice, the probability of getting a total of 3 or 5 is

A.  $\frac{1}{3}$

B.  $\frac{2}{3}$

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

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

**Answer: C**



**Watch Video Solution**

**20.** In a single throw of two dice, the probability of getting a total of 11 is

A.  $\frac{1}{9}$

B.  $\frac{1}{18}$

C.  $\frac{1}{12}$

D.  $\frac{35}{36}$

**Answer: B**



**Watch Video Solution**

21. In a single throw of two dice, the probability getting a doublet is

A.  $\frac{5}{6}$

B.  $\frac{3}{11}$

C.  $\frac{5}{12}$

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

**Answer: D**



**Watch Video Solution**

**22.** In a single throw of two dice, the probability of getting distinct numbers is

A.  $\frac{5}{6}$

B.  $\frac{3}{12}$

C.  $\frac{5}{36}$

D.  $\frac{4}{36}$

**Answer: A**



**Watch Video Solution**

**23.** In a single throw of two dice, the probability of getting even doublet is

A.  $\frac{3}{13}$

B.  $\frac{1}{12}$

C.  $\frac{1}{15}$

D.  $\frac{1}{18}$

**Answer: B**



**Watch Video Solution**

**24.** When two dice are rolled, probability of getting odd doublet is

A.  $\frac{1}{12}$

B.  $\frac{1}{18}$



C.  $\frac{1}{9}$

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

**Answer: A**



**Watch Video Solution**

**25.** Two dice are rolled, the probability of getting 6 as the product is

A.  $\frac{1}{18}$

B.  $\frac{1}{12}$

C.  $\frac{1}{9}$

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

**Answer: C**



**Watch Video Solution**

**26.** The set of all possible events is called.....

A. event

B. impossible

C. sample space

D. None

**Answer: C**



**Watch Video Solution**

27. A die is thrown. Find the probability of getting: a number less than or equal to 6

A. base event

B. impossible event

C. element

D. sure event

**Answer: D**



**Watch Video Solution**

**28.** When a coin is tossed, the probability of getting a head is.....

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

B. 2

C. -1

D.  $\frac{3}{2}$

**Answer: A**



**Watch Video Solution**

**29.** When a dice is rolled, the probability of getting a composite number is.....

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

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

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

D. None

**Answer: C**



**Watch Video Solution**

**30.** From a deck of cards, a card is drawn at random, then the probability of getting a black a face card is.....

A.  $\frac{9}{2}$

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

C.  $\frac{3}{2}$

D.  $\frac{3}{26}$

**Answer: D**



**Watch Video Solution**

**31.** From a bag containing 6 red balls, 5 green balls and 3 blue balls, the probability of getting a green ball at random.....

A.  $\frac{5}{14}$

B.  $\frac{4}{5}$

C.  $\frac{5}{4}$

D. None

**Answer: A**



**Watch Video Solution**

**32.** There are 50 cards numbered from 1 to 50.

A card is drawn at random, then the probability that the number on the card is divisible by 8 is.....



A.  $\frac{25}{3}$

B.  $\frac{3}{25}$

C.  $\frac{19}{4}$

D. None

**Answer: B**



**Watch Video Solution**

**33.** The event which can't happen at all is known as.....event.

A. sure

B. possible

C. impossible

D. None

**Answer: C**



**Watch Video Solution**

**34.** The probability of a certain event is .....

A. 9

B. 7

C. 0

D. 1

**Answer: D**



**Watch Video Solution**

**35.** The probability of an impossible event is

A. 1

B. 0

C. 4

D. None

**Answer: B**



**Watch Video Solution**

**36.** Probability of an event lies between  
.....and.....

A. 0,1

B. 2,3

C. 7,1

D. 4,9

**Answer: A**



**Watch Video Solution**

**37.  $P(E) + P(E') = \dots\dots$**

A. 0

B. 2

C. 1

D. None

**Answer: C**



**Watch Video Solution**

**38.** In a box, there are 28 marbles of which  $x$  are green and the rest are white. If the probability of getting a green marble is  $\frac{2}{7}$ .

Then number of green marbles=.....

A. 8

B. 9

C. 10

D. 13

**Answer: A**



**Watch Video Solution**

**39.** In a box, there are 28 marbles of which  $x$  are green and the rest are white. If the probability of getting a green marble is  $\frac{2}{7}$ .

Number of white marbles in the problem=.....

A. 12

B. 11

C. 16

D. 20

**Answer: D**



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**40.** IF E is an event whose probability is  $\frac{2}{5}$ ,  
then the probability of not E is.....



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

B.  $\frac{5}{3}$

C.  $\frac{3}{5}$

D.  $\frac{1}{3}$

**Answer: C**



**Watch Video Solution**

**41.** From a well shuffled pack of cards, a card is drawn at random, then the probability of getting a red jack is.....

A.  $\frac{1}{3}$

B.  $\frac{1}{26}$

C.  $\frac{1}{52}$

D.  $\frac{1}{31}$

**Answer: B**



**Watch Video Solution**

**42.** From a well shuffled pack of cards, a card is drawn at random, then the probability of getting a red coloured card is

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

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

C.  $\frac{1}{7}$

D. None

**Answer: A**



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**43.** IF an unbiased coin is tossed the probability of getting a tail is .....

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

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

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

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

**Answer: D**



**Watch Video Solution**

**44.** IF two dice are rolled simultaneously then the 'sum' with greatest possibility to happen is.....

A. 71

B. 7

C. 3

D. None

**Answer: B**



**Watch Video Solution**

**45.** If two events have same chances to happen, then they are called.....

A. equally likely

B. not likely

C. cards

D. None

**Answer: A**



**Watch Video Solution**

**46.** If the occurrence of one event prevents the occurrence of another event then they are.....

A. inclusive

B. dice

C. picking

D. mutually exclusive

**Answer: D**



**Watch Video Solution**

**47.** Probability of switching on a bulb in a dark room is 0.35, then the probability of not switching the bulb is.....

A. 65,1

B. 6.5

C. 0.65

D. None

**Answer: C**



**Watch Video Solution**

**48.** The probability of raining a day is .....

A.  $\frac{-1}{2}$



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

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

D. None

**Answer: B**



**Watch Video Solution**

**49.** IF one side is chosen at random from the sides of a right triangle, then the probability that it is hypotenuse is .....

A. 2

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

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

D. 3

**Answer: C**



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**50.** When a dice is thrown, the probability of getting neither a prime nor composite number is.....

A.  $\frac{1}{3}$

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

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

D. None

**Answer: C**



**Watch Video Solution**

**51.** When a coin is tossed the probability of getting a tail or head is.....

A. 0

B.  $\frac{-1}{2}$

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

D. 1

**Answer: C**



**Watch Video Solution**

**52. Getting a tail or head.....**

A. equally likely

B. unlikely

C. exclusive

D. None

**Answer: A**



**Watch Video Solution**

**53. Getting a prime (or) composite**

A. mutually exclusive

B. likely

C. 0

D. None

**Answer: A**



**Watch Video Solution**

**54.** Getting a red card (or) black card is.....

A. mutually exclusive

B. more likely

C. less likely

D. None

**Answer: A**



**Watch Video Solution**

**55. P (sure events)=.....**

A. 1

B. 0

C. -1

D. 2

**Answer: A**



**Watch Video Solution**

**56.  $P$  ( Impossible events)=.....**

A. 4

B. 3

C. -1

D. 0

**Answer: D**





Watch Video Solution

57. The probability of a face card from red cards is.....

A.  $\frac{3}{13}$

B.  $\frac{13}{3}$

C.  $\frac{2}{17}$

D. None

**Answer: A**



58. The probability of drawing a black king from the deck is.....

A.  $\frac{1}{14}$

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

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

D.  $\frac{1}{26}$

**Answer: D**



59. The probability of drawing a black card from the black cards is.....

A. 3

B. 2

C. 0

D. 1

**Answer: D**



**Watch Video Solution**

60. The probability of getting two tails when two coins are tossed is.....

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

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

C.  $\frac{2}{3}$

D. None

**Answer: A**



**Watch Video Solution**

61. There are..... Cards in a pack of playing cards.

A. 19

B. 16

C. 52

D. 50

**Answer: C**



**Watch Video Solution**

62. IF  $P(E) = 0.05$ , then  $P(\bar{E}) = \dots\dots\dots$

A. 1.35

B. 0.95

C. 9.5

D. 1.5

**Answer: B**



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63.  $P(G) = \frac{4}{17}$ ,  $P(\bar{G}) = \dots\dots\dots$

A.  $\frac{13}{17}$

B.  $\frac{3}{17}$

C.  $\frac{7}{17}$

D.  $\frac{1}{17}$

**Answer: A**



**Watch Video Solution**

64.  $P(N) + P(\bar{N}) = \dots\dots\dots$

A. 0

B. 1

C. 3

D. 7

**Answer: B**



**Watch Video Solution**



65. A baby is born the probability that it is a boy(or) girl is.....

A. 1

B.  $\frac{-1}{2}$

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

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

**Answer: D**



**Watch Video Solution**

**66.** Fill in the blanks:

(i) The probability of an impossible event is

..... .

(ii) The probability of a sure event is ..... .

(iii) For any event E,  $P(E) + P(\text{not } E) = \dots\dots\dots$  .

(iv) The probability of a possible but not a sure event lies between ..... and ..... .

(v) The sum of probabilities of all the outcomes of an experiment is ..... .

A. 1

B. 2

C. 3

D. None

**Answer: A**



**Watch Video Solution**

**67. Identify true statement.**

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

B.  $0 < P(E) < 2$

C.  $9 \leq P(E)$

D. None

**Answer: A**



**Watch Video Solution**

**68.** There are.....face cards.

A. 1

B. 2

C. 4

D. None

**Answer: D**



**Watch Video Solution**

**69.** Probability can never be.....

A. 0

B. 1

C. 0.5

D. -2

**Answer: D**



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70. A dice is tossed once then the probability of getting an even number or a multiple of 3 is.....

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

B.  $\frac{2}{3}$

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

D. None

**Answer: B**



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71. The probability that a leap year has 53 sundays is.....

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

B.  $\frac{3}{7}$

C.  $\frac{1}{7}$

D.  $\frac{21}{17}$

**Answer: A**



72. Two dice are thrown once together. What is the probability of getting a doublet?

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

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

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

D. None

**Answer: C**





73.  $P(E) - 1 + P(\bar{E}) = \dots\dots\dots$

A. -2

B. 0

C. 9

D. 2

**Answer: B**



**Watch Video Solution**

74.  $P(E) = 0.455$  then  $P(\bar{E}) = \dots\dots\dots$

A. 0.545

B. 0.145

C. 0.345

D. None

**Answer: A**



**Watch Video Solution**

75.  $P(A^1) = \dots\dots\dots$

A.  $\phi$

B. A

C.  $1-P(A)$

D. None

**Answer: C**



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**Probability Multiple Choice Question**

1. The probability that a leap year will have 52 tuesdays is.....

A.  $\frac{1}{7}$

B.  $\frac{3}{7}$

C.  $\frac{2}{7}$

D.  $\frac{5}{7}$

**Answer: D**



**Watch Video Solution**

2. The probability of drawing a card which is at least a spade (or) a king from a well shuffled pack of cards is.....

A.  $\frac{4}{13}$

B.  $\frac{2}{13}$

C.  $\frac{1}{13}$

D.  $\frac{5}{13}$

**Answer: A**



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3. IF A,B,C are three mutually exclusive events of a trial such that  $P(A)=2P(B)=3P(C)$  then  $P(A)=\dots\dots$

A.  $\frac{11}{6}$

B.  $\frac{5}{11}$

C.  $\frac{6}{11}$

D. 1

**Answer: C**



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4. A bag contains 3 red, 4 white and 5 blue balls. If two balls are drawn at random. The probability that they are of different colours is.....

A.  $\frac{47}{66}$

B.  $\frac{10}{33}$

C.  $\frac{5}{22}$

D.  $\frac{2}{11}$

**Answer: A**



**Watch Video Solution**

5. A card is drawn at random from normal pack of cards. The probability that it is either a spade or a queen is.....

A.  $\frac{13}{4}$

B.  $\frac{4}{13}$

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

D. 1

**Answer: B**





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6. The probability that a leap year have 53 sundays is.....

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

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

C.  $\frac{2}{7}$

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

**Answer: C**



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7. The probabilities of solving a problem by three students A,B,C independently are  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ . The probability that the problem will be solved is.....

A.  $\frac{1}{60}$

B.  $\frac{36}{60}$

C.  $\frac{48}{60}$

D.  $\frac{57}{60}$

**Answer: B**



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8. IF  $P(A \cup B)=0.65$ ,  $P(A \cap B)=0.15$ , then

$P(A)+P(B)=\dots\dots\dots$

A. 0.6

B. 0.8

C. 1.2

D. 1.4

**Answer: B**



9. The probability of getting a number between 1 and 100 which is divisible by one and itself only is.....

A.  $\frac{98}{25}$

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

C.  $\frac{97}{25}$

D.  $\frac{25}{98}$

**Answer: D**



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10. The probability of getting at least two heads, when tossing a coin three times is.....

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

B. 2

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

D. 1

**Answer: A**



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11. IF  $P(A)=0.4, P(A \cup B)=0.7$  and  $A, B$  are independent, then  $P(B)=\dots\dots$

A. 1

B. -1

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

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

**Answer: C**



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12. Card is drawn at random from a packet of 100 cards numbered 1 to 100. The probability of drawing a number which is a square is.....

A. 1

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

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

D.  $\frac{1}{10}$

**Answer: D**



**Watch Video Solution**

13. Three balls are drawn at random from collection of 7 white, 12 green and 4 red balls, The probability that each ball is of different colours is.....

A.  $\frac{48}{253}$

B.  $\frac{8}{253}$

C.  $\frac{9}{257}$

D. None

**Answer: A**





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14. At a selection, the probability of selection of A is  $\frac{1}{7}$  and that of B is  $\frac{1}{5}$ , The probability that both if them would not be selected is.....

A.  $\frac{2}{5}$

B.  $\frac{24}{35}$

C.  $\frac{13}{15}$

D. None

**Answer: B**



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15. Three mangoes and three apples are in a box. IF two fruits are chosen at random the probability that one is a mango and the other is an apple is.....

A. None

B.  $\frac{3}{5}$

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

D.  $\frac{1}{36}$

**Answer: B**



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**16.** A card is taken out of a pack of 52 cards numbered 2 to 53. The probability that the number on the card is a prime less than 20 is.....

A.  $\frac{2}{13}$

B.  $\frac{13}{2}$

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

D. None

**Answer: A**



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**17.** The probabilities of a problem being solved by two students are  $\frac{1}{2}$  and  $\frac{1}{3}$ . The probability of the problem being solved is.....

A.  $\frac{2}{3}$

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

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

D. 1

**Answer: A**



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**18.** When two dice are thrown, the probability of getting equal number is.....

A. 6

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

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

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

**Answer: B**



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**19.** When two balls are drawn from a bag containing 2 white, 4 red and 6 black balls, the chance for both of them to be red is.....

A.  $\frac{1}{10}$

B.  $\frac{1}{5}$

C.  $\frac{1}{11}$

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

**Answer: C**



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**20.** Two dice thrown simultaneously. The probability of getting even numbers on both the dice is.....

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

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

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

D. None

**Answer: A**



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**Exercise**



1. Outcomes of which of the following experiments are equally likely ?

- (1) Getting a digit 1, 2, 3, 4, 5 or 6 when a dice is rolled.
- (2) Selecting a different colour ball from a bag of 5 red balls, 4 blue balls and 1 blackball. Winning in a game of carrom.
- (3) Units place of a two digit number selected may be 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9.
- (4) Selecting a different colour ball from a bag of 10 red balls, 10 blue balls and 10 black balls.
- (5) Raining on a particular day of July.

Are the outcomes of every experiment equally likely?



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2. Give examples of 5 experiments that have equally likely outcomes and five more examples that do not have equally likely outcomes.



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3. Think of 5 situations with equally likely events and find the sample space.



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4. Is getting a head complementary to getting a tail ? Give reasons.



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5. In case of a die is getting a 1 complementary to events getting 2, 3,4, 5,6 ? Give reasons for your answer.



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6. Write of five new pair of events that are complementary.



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7. A child has a dice whose six faces show the letters A,B,C,D,E and F. The dice is thrown once. What is the probability of getting D?



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

2.3



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

-1.5



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10. Which of the following cannot be the probability of an event? : 15%



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

0.7



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**12.** You have a single deck of well shuffled cards. Then,

What is the probability that the card drawn will be a queen?



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**13.** What is the probability that it is face card?



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14. What is the probability that it is a spade?



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15. What is the probability that is the face card of spades?



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16. What is the probability it is not a face card?



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17. Why is tossing a coin considered to be a fair way of deciding which team should get the ball at the beginning of any game?



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18. Can  $\frac{7}{2}$  be the probability of an event?  
Explain.



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**19.** Which of the following arguments are correct and which are not correct? Give reasons. If two coins are tossed simultaneously, there are three possible outcomes-two heads, two tails or one of each. Therefore, for each of these outcomes, the probability is  $\frac{1}{3}$ .



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**20.** Which of the following arguments are correct and which are not correct? Give

reasons. If a dice is thrown, there are two possible outcomes an odd number or an even number. Therefore, the probability of getting an odd number is  $\frac{1}{2}$ .



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**21.** Find the probability of getting a head when a coin is tossed once. Also find the probability of getting a tail.



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**22.** A bag contains a red ball, a blue ball and an yellow ball, all the balls being of the same size . Manasa takes out a ball from the bag without looking into it. What is the probability that she takes a (i) yellow ball? (ii) red ball? (iii) blue ball?



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**23.** Suppose we throw a dice once. What is the probability of getting a number greater than 4?



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**24.** Suppose we throw a dice once. What is the probability of getting a number less than or equal to 4?



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**25.** One card is drawn from a well-shuffled deck of 52 cards. Calculate the probability that the card will not be an ace.



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26. Sangeeta and Reshma , play a tennis match. It is known that the probability of sangeeta winning the match is 0.62. What is the probability of Reshma winning the match?



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27. Sarada and Hamida are friends. What is the probability that both will have different birthdays?



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**28.** There are 40 students in Class X of a school of whom 25 are girls and 15 are boys. The class teacher has to select one student as a class representative. She writes the name of each student on a separate cards, the cards being identical . Then she puts cards in a box and stirs them thoroughly. She then draws one card from the box.What is the probability that the name written on the card is the name of a girl



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**29.** Complete the following statements:

Probability of an event  $E$  + Probability of the event 'not  $E$ ' = \_\_\_\_\_.



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**30.** Complete the following statements:

The probability of an event that cannot



happen is \_\_\_\_\_.

Such as event is called an \_\_\_\_\_.



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**31.** Complete the following statements:

The probability of an event that is certain to happen is \_\_ such an event is called \_\_\_\_\_.



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**32.** Complete the following statements:

The sum of the probabilities of all the elementary events of an experiments is \_\_\_.



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**33.** Complete the following statements:

The probability of an event is greater than or equal to \_\_\_\_\_ and less than or equal to \_\_\_\_\_.



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**34.** Which of the following experiments have equally likely outcomes? Explain.

A driver attempts to start a car. The car starts or does not start.



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**35.** Which of the following experiments have equally likely outcomes? Explain.

A player attempts to shoot a basket-ball. She/HE shoots or misses the shot.



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**36.** Which of the following experiments have equally likely outcomes? Explain.

A trial is made to answer a true -false question. The answer is right or wrong.



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**37.** Which of the following experiments have equally likely outcomes? Explain.

A baby is born. IT is a boy or a girl.



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**38.** IF  $P(E) = .05$ , what is the probability of 'not E'?



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**39.** A bag contains lemon flavoured candies only. Malini takes out one candy without looking into the bag what is the probability that she takes out an orange flavoured candy?



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**40.** Rahim removes all the hearts from the cards. What is the probability of picking out an ace from the remaining pack.



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**41.** Rahim removes all the hearts from the cards. What is the probability of Picking out the ace of hearts.



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**42.** Rahim removes all the hearts from the cards. What is the probability of picking out a card that is not a heart.



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**43.** Rahim removes all the hearts from the cards. What is the probability of Picking out the ace of hearts.



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**44.** It is given that in a group of 3 students, the probability of 2 students not having the same birthday is 0.992. What is the probability that the 2 students have the same birthday?



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**45.** A die is thrown once. Find the probability of getting a prime number,



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**46.** A die is thrown once. Find the probability of getting a number lying between 2 and 6.



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**47.** A die is thrown once. Find the probability of getting an odd number.



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**48.** What is the probability of drawing out a red king from a deck of cards?



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**49.** Make 5 more problems of this using dice, cards or birthdays and discuss with friends and teacher about their solutions.



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50. A box contains 3 blue, 2 white and 4 red marbles. If a marble is drawn at random from the box, what is the probability that it will be white?



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51. Harpreet tosses two different coins simultaneously (say, one is of Rs1 and other of Rs2). What is the probability that she gets at least one head?





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



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**53.** A missing helicopter is reported to have crashed somewhere in the rectangular region as shown in the figure. What is the probability that it crashed inside the lake shown in the figure?



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**54.** A cartoon consists of 100 shirts of which 88 are good, 8 have minor defects and 4 have

major defects. Jhony, a trader, will only accept the shirts which are good, but Sujatha, another trader, will only reject the shirts will have major defects. One shirt is selected at random from the carton. What is the probability that it is acceptable to Jhony?



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**55.** A carton consists of 100 shirts of which 88 are good, 8 have minor defects and 4 have major defects. Jhony, a trader, will only accept

the shirts which are good, but Sujatha, another trader, will only reject the shirts will have major defects. One shirt is selected at random from the carton. What is the probability that it is acceptable to Sujatha?



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**56.** Two dice, one red and one white , are thrown at the same time. Write down all the possible outcomes. What is the probability

that the sum of the two numbers appearing on the top of the dice is 8?



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**57.** A bag contains 3 red balls and 5 black balls. A ball is drawn at random from the bag. What is the probability that the ball drawn is not red?



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**58.** A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be red?



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**59.** A kiddy bank contains hundred 50p coins, fifty Rs1 coins, twenty Rs2 coins and ten Rs5 coins. IF it is equally likely that one of the

coins will fall out when the bank is turned upside down, what is the probability that the coin will be a 50p coins?



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**60.** A kiddy bank contains hundred 50p coins, fifty ₹1 coins, twenty ₹2 coins and ten ₹5 coins. If it is equally likely that one of the coins will fall out when the bank is turned upside down, what is the probability that the coin (ii) will not be a ₹5 coin?



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61. Gopal buys a fish from a shop for his aquarium. The shopkeeper takes out one fish at random from a tank containing 5 male fish and 8 female fish (See figure). What is the probability that the fish taken out is a male fish?



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**62.** A game of chance consists of spinning an arrow which comes to rest pointing at one of the numbers 1,2,3,4,5,6,7,8 (See figure), and these are equally likely outcomes. What is the probability that it will point at (i) 8 ? (ii) an odd number? (iii) a number greater than 2? (iv) a number less than 9?



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**63.** A game of chance consists of spinning an arrow which comes to rest pointing at one of the numbers 1,2,3,4,5,6,7,8 (See figure), and these are equally likely outcomes. What is the probability that it will point at (i) 8 ? (ii) an odd number? (iii) a number greater than 2? (iv) a number less than 9?



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**64.** A game of chance consists of spinning an arrow which comes to rest pointing at one of the numbers 1,2,3,4,5,6,7,8 (See figure), and these are equally likely outcomes. What is the probability that it will point at (i) 8 ? (ii) an odd number? (iii) a number greater than 2? (iv) a number less than 9?



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**65.** A game of chance consists of spinning an arrow which comes to rest pointing at one of the numbers 1,2,3,4,5,6,7,8 (See figure), and these are equally likely outcomes. What is the probability that it will point at (i) 8 ? (ii) an odd number? (iii) a number greater than 2? (iv) a number less than 9?



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**66.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting a king of red colour?



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**67.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting a face card?



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**68.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting a red face card?



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**69.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting the jack of hearts?



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**70.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting a spade?



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**71.** One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting the queen of diamonds?



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**72.** Five cards -the ten , jack queen, king and ace of diamond, are well shuffled with their face downwards. One card is then picked up at random.

What is the probability that the card is the queen?



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**73.** Five cards -the ten , jack queen, king and ace of diamond, are well shuffled with their

face downwards. One card is then picked up at random.

IF the queen is drawn and put aside, what is the probability that the second card picked is

(a) a ace? (b) a queen?



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**74.** 12 defective pens are accidentally mixed with 132 good ones. IT is not possible to just look at a pen and tell whether or not it is defective. One pen is taken out at random

from this lot. Determine the probability that the pen taken out is a good one.



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**75.** A lot of 20 bulbs contain 4 defective ones. One bulb is drawn at random from the lot. What is the probability that this bulb is defective? Suppose the bulb is drawn is previous case is not defective and is not replaced. Now one bulb is drawn at random

from the rest. What is the probability that this bulb is not defective?



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**76.** 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?



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77. 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 number.



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78. 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.





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**79.** Suppose you drop a die at random on the rectangular region shown in figure. What is the probability that it will land inside the circle with diameter 1m?



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**80.** A lot consists of 144 ball pens of which 20 are defective and the others are good. The



shopkeeper drawn one pen at random and gives it to Sudha. What is the probability that She will not buy it?



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**81.** Two dice are rolled simultaneously and counts are added

A student argues that there are 11 possible outcomes 2,3,4,5,6,7,8,9,10,11 and 12. Therefore, each of them has a probability  $\frac{1}{11}$ . Do you agree with this argument? Justify your answer.



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**82.** A game consists of tossing a one rupee coin 3 times and noting its outcome each time. Hanif wins if all the tosses give the same result i.e, three heads or three tails, and loses other-wise. Calculate the probability that Hanif will lose the game.



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**83.** A dice is thrown twice. What is the probability that (i) 5 will not come up either time? (ii) 5 will come up atleast once? [Hint: Throwing a dice twice and throwing two dice simultaneously are treated as the same experiment].



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**84.** Two customers Shyam and Ekta are visiting a particular shop in the same week (Tuesday to

Saturday). Each is equally likely to visit the shop on the same day?



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**85.** A bag contains 5 red balls and some blue balls, If the probability of drawing a blue ball is double that of a red ball, Find the number of blue balls in the bag.



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**86.** A box contains 12 balls out of which  $x$  are black, IF one ball is drawn at random from the box, what is the probability that it will be a black ball? If 6 more black balls are put in the box, the probability of drawing a black ball is now double of what it was before Find  $x$ .



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**87.** A jar contains 24 marbles, some are green and others are blue. IF a marble is drawn at

random from the jar, the probability that it is green is  $\frac{2}{3}$ . Find the number of blue marbles in the jar.



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**88.** When die is rolled once unbiased what is the probability of getting a multiple of 3 out of possible outcomes?



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**89.** The probability of an event is always in between 0 and 1. Why?



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**90.** Find the probability of getting the same number on the both the dice when two dice are thrown.



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**91.** Find the probability of getting a prime number, when a card drawn at random from the numbered cards from 1 to 25.



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**92.** From the first 50 natural numbers, find the probability of randomly selected number is a multiple of 3.



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**93.** When a dice is rolled, the probability of getting a composite number is.....



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



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**95.** From English alphabet if a letter is chosen at random, then find the probability that the letter is a consonant.



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**96.** Which of the following are equally likely events?



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**97.** When a die is rolled, the probability of getting an odd prime number is .....



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**98.** There are 12 red, 18 blue and 6 white balls in a box, when balls is drawn at random from the box, what is the probability of not getting a red ball?



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**99.** When a card is drawn from a well shuffled deck of 52 cards, then find the probability of NOT getting a red faced card.



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**100.** There are 5 red balls, 4 green balls and 6 yellow balls in a box. IF a ball is selected at random, what is the probability of not getting a yellow ball?



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**101.** One card is selected from a well shuffled deck of 52 cards. Find the probability of getting a red card with prime number.



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**102.** From the following data. Find the probability of selecting 'B' blood group student .



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**103.** What is the probability of a number picked from first twenty natural numbers is even composite number?



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**104.** A bag contains balls which are numbered from 1 to 50. A ball is drawn at random from the bag, the probability that it bears a two digit number multiple of 7.



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**105.** A box contains 4 red balls, 5 green balls and  $P$  white balls. If the probability of randomly picked ball from the box to be a red ball is  $\frac{1}{3}$ , then find the number of white balls.



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**106.** A bag contains 7 red, 5 white and 6 black balls. A ball is drawn from the bag at random,

find the probability that the ball drawn is not black.



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**107.** There are 100 flash cards labelled from 1 to 100 in a bag. When a card is drawn from the bag at random, what is the probability of getting.....

a card with prime number from possible outcomes?



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**108.** A shopkeeper has 100 memory cards in a box. Among them, 15 memory cards are defective. When a person came to the shop to buy a memory card, the shopkeeper drew a memory card at random from the box. Then, what is the probability that this memory card is defective?



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**109.** A bag contains 5 red balls and some blue balls, If the probability of drawing a blue ball is double that of a red ball, Find the number of blue balls in the bag.



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**110.** Two dice are rolled at same time and the sum of the numbers appearing on them is noted. Find the probability of getting each sum from 3 to 5 separately.





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**111.** A bag contains some square cards. A prime number between 1 and 100 has been written on each card. Find the probability of getting a card that the sum of the digits of prime number written on it, is 8.



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**112.** From the deck of 52 cards, if a card is randomly chosen , find the probability of

getting a card with a prime number on it?



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**113.** If two dice are thrown at the same time, find the probability of getting sum of the dots on top is prime.



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**114.** From a pack of 52 playing cards, Jacks, Queens, Kings and Aces of red colour are

removed. From the remaining, a card is drawn at random. Find the probability that the card drawn is (i) a black queen,(iii) a red card.



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**115.** Suppose you drop a die at random on the rectangular region shown in figure. What is the probability that it will land inside the circle with diameter 1m?



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**116.** In a class 32 students out of 60 take tea. So find the probability of choosing randomly a student who doesn't take tea.



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**117.** IF  $P(E) = 3/4$  what is the probability of "not E"?



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**118.** There are 3 red and 4 white balls in a bag. If a ball is taken randomly then calculate the probability of it to be a red ball.



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**119.** Find the probability of existing 53 sundays in a common year.



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**120.** In a 50 marks examination, there is 80% possibility to pass in that exam. So find the probability for pass in exam.



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**121.** A bag contains 5 red and 8 white balls. If a ball is drawn at random from the bag. What is the probability that it will be  
(i) white ball (ii) not to be white ball.



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**122.** In a skinner numbered from 1-20, find the probability of getting of following prime number.



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**123.** When a six face die is rolled find the probability of getting the following getting less than five.



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124. IF  $P(E) = 0.26$ , then  $P(\bar{E}) = \dots\dots\dots$

A. 0.18

B. 0.28

C. 0.38

D.  $P(E) = P(\bar{E})$

**Answer:**



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125. IF a die is rolled, then the probability of getting a prime number is.....

A. 1

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

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

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

**Answer:**



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126. Let  $E, \bar{E}$ , be the complimentary events, in a random experiment , then which of the following is true?

A.  $P(E) + P(\bar{E}) = 2$

B.  $P(E) + P(\bar{E}) = 3$

C.  $P(\bar{E}) + P(E) = 1$

D.  $P(E) + P(\bar{E}) = 4$

**Answer:**



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127. Which one of the following cannot be the probability of an event?

A.  $\frac{2}{3}$

B.  $\frac{4}{5}$

C. 0.7

D. 44291

**Answer:**



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**128.** On random selection, the probability of getting a composite number among the numbers from 51 to 100.

A.  $\frac{4}{5}$

B.  $\frac{1}{5}$

C.  $\frac{3}{5}$

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

**Answer:**



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129. Let  $E$ , and  $\bar{E}$ , be the complimentary events.

IF  $P(\bar{E}) = 0.65$  then  $P(E) = \dots\dots\dots$

A. 0.4

B. 0.45

C. 0.35

D. 0.3

**Answer:**



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130. At what value of 'x',  $\frac{5}{x}$  may possible probability of an event?

A. 2

B. 1

C. 4

D. 6

**Answer:**



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**131.** IF  $P ( E )$  is the probability of an event  $E$ ,  
then.....

A.  $0 < P(E) < 1$

B.  $0 \leq P(E) < 1$

C.  $0 \leq P(E) \leq 1$

D.  $0 < P(E) < = 1$

**Answer:**



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**132.** The probability of getting right answer to a question is 0.68, the probability of getting a wrong answer is .....

A. 0.32

B. 0.32

C. 32

D. A and B

**Answer:**



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**133.** A letter is chosen from the word “BAHUBALI”, the probability that it was not a vowel is

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

B.  $\frac{3}{2}$

C.  $\frac{4}{3}$

D.  $\frac{3}{4}$

**Answer:**



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134. The probability is sure event is

A. 0

B.  $\hat{\left(\frac{1}{2}\right)}$

C. 1

D. undefined

**Answer:**



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**135.** A die is thrown once. Find the probability of getting a prime number,

A.  $\frac{1}{3}$

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

C.  $\frac{2}{3}$

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

**Answer:**



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**136.** From a set of single digit natural numbers, if a number is chosen at random then the probability that the number chosen is a multiple of 2, is

A.  $\frac{4}{9}$

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

C.  $\frac{9}{4}$

D.  $\frac{2}{4}$

**Answer:**



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**137.** IF  $P ( E )$  is the probability of an event  $E$ ,  
then.....

A.  $P(E) \geq 1$

B.  $P(E) \leq 0$

C.  $0 \leq P(E) \leq 1$

D.  $P(E) \leq 1$

**Answer:**



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**138.** Two fair dice are rolled and the face values are added. The probability of getting an odd number greater than 8 is .....

A.  $\frac{2}{9}$

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

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

D.  $\frac{1}{9}$

**Answer:**



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**139.** A jar contains 3 mangoes and  $x$  guavas. Two fruits are pulled from the jar without replacement. An expression that represents the probability one fruit is mango and the next fruit is guava is.....

A.  $\left(\frac{3}{x+3}\right)\left(\frac{x-1}{x+2}\right)$

B.  $\left(\frac{3}{x+3}\right)\left(\frac{x}{x+2}\right)$

C.  $\left(\frac{3}{x+3}\right)\left(\frac{x-1}{x-2}\right)$

D.  $\left(\frac{3 \times 2}{x+3}(x+2)\right)$

**Answer:**



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**140.** A card is pulled from a deck of 52 cards,

The probability of obtaining a club is

A.  $\frac{1}{3}$

B.  $\frac{13}{26}$

C.  $\frac{2}{11}$

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

**Answer:**



**141.** Three different greetings cards and their corresponding covers are randomly strewn about on a table. IF Sita puts the greetings cards into the covers at random, the probability of correctly matching of all the greeting cards and covers is .....

A.  $\frac{5}{6}$

B.  $\frac{2}{3}$

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

D.  $\frac{1}{9}$

**Answer:**



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**142.** When a coin is tossed, the probability of getting a head is.....

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

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

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

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

**Answer:**



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**143.** IF a die is rolled, then the probability of getting an even number is.....

A.  $\frac{1}{6}$

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

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

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

**Answer:**



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**144.** IF two dice are rolled at a time then the probability that the two faces show different numbers is

A.  $\frac{1}{6}$

B.  $\frac{35}{36}$

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

D.  $\frac{1}{36}$

**Answer:**



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**145.** If two dice are thrown simultaneously, the probability of showing the same numbers on their faces

A.  $\frac{1}{6}$

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

C.  $\frac{1}{12}$

D.  $\frac{1}{3}$

**Answer:**



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**146.** The probability of getting a number less than 5 when a die is rolled is

A.  $\frac{4}{5}$



B.  $\frac{2}{3}$

C.  $\frac{3}{6}$

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

**Answer:**



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**147.** IF a card is drawn from a pack the probability that it is a king is

A.  $\frac{1}{13}$

B.  $\frac{1}{52}$

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

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

**Answer:**



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**148.** A card is pulled from a deck of 52 cards,

The probability of obtaining a club is

A.  $\frac{1}{52}$

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

C.  $\frac{1}{13}$

D.  $\frac{1}{26}$

**Answer:**



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**149.** In a lucky dip of 30 tokens, Gopi purchased two tokens . Then the probability of getting the first prize is

A.  $\frac{1}{30}$

B.  $\frac{2}{30}$

C.  $\frac{3}{30}$

D.  $\frac{2}{15}$

**Answer:**



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**150.** IF a ball is drawn at random from a box containing 11 red balls,6 white balls and 9

green balls then, the probability that the ball  
is not green is

A.  $\frac{9}{26}$

B.  $\frac{17}{26}$

C.  $\frac{11}{26}$

D.  $\frac{6}{26}$

**Answer:**



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**151.** A box contains pencils and pens. The probability of picking out a pen at random is 0.65. Then the probability of not picking a pen is

A. 0.45

B. 0.55

C. 0.65

D. 0.35

**Answer:**



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**152.** Which of the following are equally likely events?

A. A getting a Head or Tail in tossing a coin.

B. In a throw of a die, getting prime or composite number.

C. Drawing a number card from 1-50, a number divisible by 6 or 8.

D. Piking a heart or black card from a deck  
of playing cards.

**Answer:**



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**153.** In a simultaneous toss of two coins,  
probability of no tails is

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

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



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

D.  $\frac{3}{4}$

**Answer:**



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**154.** In a simultaneous toss of two coins, the probability of at least one head is

A.  $\frac{1}{3}$

B.  $\frac{2}{4}$

C.  $\frac{3}{4}$

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

**Answer:**



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**155.** In a single thrown of two dice, the probability of getting a total of 12 is

A.  $\frac{1}{18}$

B.  $\frac{1}{36}$

C.  $\frac{1}{9}$

D.  $\frac{1}{12}$

**Answer:**



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**156.** In a single throw of two dice, the probability of getting a total of 3 or 5 is

A.  $\frac{1}{3}$

B.  $\frac{2}{3}$

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

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

**Answer:**



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**157.** In a single throw of two dice, the probability of getting a total of 11 is

A.  $\frac{1}{9}$

B.  $\frac{1}{18}$

C.  $\frac{1}{12}$

D.  $\frac{35}{36}$

**Answer:**



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**158.** In a single throw of two dice, the probability getting a doublet is

A.  $\frac{5}{6}$

B.  $\frac{3}{11}$

C.  $\frac{5}{12}$

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

**Answer:**



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**159.** In a single throw of two dice, the probability of getting distinct numbers is

A.  $\frac{5}{6}$

B.  $\frac{3}{12}$

C.  $\frac{5}{36}$

D.  $\frac{4}{36}$

**Answer:**



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**160.** In a single throw of two dice, the probability of getting even doublet is

A.  $\frac{3}{13}$

B.  $\frac{1}{12}$

C.  $\frac{1}{15}$

D.  $\frac{1}{18}$

**Answer:**



**Watch Video Solution**

**161.** When two dice are rolled, probability of getting odd doublet is

A.  $\frac{1}{12}$

B.  $\frac{1}{18}$



C.  $\frac{1}{9}$

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

**Answer:**



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**162.** Two dice are rolled, the probability of getting 6 as the product is

A.  $\frac{1}{18}$

B.  $\frac{1}{12}$

C.  $\frac{1}{9}$

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

**Answer:**



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**163.** The set of all possible events is called.....

A. event

B. impossible

C. Sample space

D. None

**Answer:**



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**164.** The “event” of getting a number less than or equal to 6 when a dice is thrown .....

A. base event

B. possible event

C. Element

D. Sure event

**Answer:**



**Watch Video Solution**

**165.** When a coin is tossed, the probability of getting a head is.....

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

B. 2

C.  $-1$

D.  $\frac{3}{2}$

**Answer:**



**Watch Video Solution**

**166.** When a dice is rolled, the probability of getting a composite number is.....

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

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

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

D. None

**Answer:**



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**167.** From a deck of cards, a card is drawn at random, then the probability of getting a black a face card is.....

A.  $\frac{9}{2}$

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

C.  $\frac{3}{2}$

D.  $\frac{2}{26}$

**Answer:**



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**168.** From a bag containing 6 red balls, 5 green balls and 3 blue balls, the probability of getting a green ball at random.....

A.  $\frac{5}{14}$

B.  $\frac{4}{5}$

C.  $\frac{5}{4}$

D. None

**Answer:**



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**169.** There are 50 cards numbered from 1 to 50.

A card is drawn at random, then the probability that the number on the card is divisible by 8 is.....



A.  $\frac{25}{3}$

B.  $\frac{3}{25}$

C.  $\frac{19}{4}$

D. None

**Answer:**



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**170.** The event which can't happen at all is known as.....event.

A. Sure

B. Possible

C. Impossible

D. None

**Answer:**



**Watch Video Solution**

**171.** The probability of an event is.....

A. 9

B. 7

C. 0

D. 1

**Answer:**



**Watch Video Solution**

**172.** The probability of an impossible event is

A. 1

B. 0

C. 4

D. None

**Answer:**



**Watch Video Solution**

**173.** Probability of an event lies between  
.....and.....

A. 0,1

B. 2,3

C. 7,1

D. 4,9

**Answer:**



**Watch Video Solution**

**174.**  $P(E) + P(\bar{E}) = \dots\dots$

A. 0

B. 2

C. 1

D. None

**Answer:**



**Watch Video Solution**

**175.** In a box, there are 28 marbles of which  $x$  are green and the rest are white. If the probability of getting a green marble is  $\frac{2}{7}$ .

Then number of green marbles=.....

A. 8

B. 9

C. 10

D. 13

**Answer:**



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**176.** In the above problem  $a_5 = \dots$

A. 12

B. 11

C. 16

D. 20

**Answer:**



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**177.** IF E is an event whose probability is  $\frac{2}{5}$ ,  
then the probability of not E is.....

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

B.  $\frac{5}{3}$



C.  $\frac{3}{5}$

D.  $\frac{1}{3}$

**Answer:**



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**178.** From a well shuffled pack of cards, a card is drawn at random, then the probability of getting a red jack is.....

A.  $\frac{1}{3}$

B.  $\frac{1}{26}$

C.  $\frac{1}{52}$

D.  $\frac{1}{31}$

**Answer:**



**Watch Video Solution**

**179.** From a well shuffled pack of cards, a card is drawn at random, then the probability of getting a red coloured card is

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

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

C.  $\frac{1}{7}$

D. None

**Answer:**



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**180.** When a coin is tossed, the probability of getting a head is.....

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

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

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

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

**Answer:**



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**181.** IF two dice are rolled simultaneously then the 'sum' with greatest possibility to happen is.....

A. 71

B. 7

C. 3

D. None

**Answer:**



**Watch Video Solution**

**182.** If two events have same chances to happen, then they are called.....

A. equally likely

B. not likely

C. cards

D. None

**Answer:**



**Watch Video Solution**

**183.** If the occurrence of one event prevents the occurrence of another event then they are.....

A. inclusive

B. dice

C. piking

D. mutually exclusive

**Answer:**



**Watch Video Solution**

**184.** Probability of switching on a bulb in a dark room is 0.35, then the probability of not switching the bulb is.....

A. 65.1

B. 6.5

C. 0.65

D. None

**Answer:**



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**185.** The probability of raining a day is .....

A.  $-\frac{1}{2}$



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

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

D. None

**Answer:**



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**186.** IF one side is chosen at random from the sides of a right triangle, then the probability that it is hypotenuse is .....

A. 2

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

C. 3

D.  $\frac{1}{3}$

**Answer:**



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**187.** When a dice is thrown, the probability of getting neither a prime nor composite number is.....

A.  $\frac{1}{3}$

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

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

D. none

**Answer:**



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**188.** When a coin is tossed the probability of getting a tail or head is.....

A. 0

B.  $-\frac{1}{2}$

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

D. 1

**Answer:**



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**189.** Getting a tail or head.....

A. equally likely

B. unlikely

C. exclusive

D. None

**Answer:**



**Watch Video Solution**

**190.** Getting a prime (or) composite

A. mutually exclusive

B. Likely

C. 0

D. None

**Answer:**



**Watch Video Solution**

**191.** Getting a red card (or) black card is.....

A. mutually exclusive

B. More likely

C. less likely

D. None

**Answer:**



**Watch Video Solution**

**192.**  $P(\text{sure events}) = \dots\dots\dots$

A. 1

B. 0

C.  $-1$

D. 2

**Answer:**



**Watch Video Solution**

**193.**  $P(\text{Impossible events}) = \dots\dots\dots$

A. 4

B. 3

C.  $-1$

D. 0

**Answer:**





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**194.** The probability of a face card from red cards is.....

A.  $\frac{3}{13}$

B.  $\frac{13}{3}$

C.  $\frac{2}{17}$

D. None

**Answer:**



**195.** The probability of drawing a black king from the deck is.....

A.  $\frac{1}{14}$

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

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

D.  $\frac{1}{26}$

**Answer:**



**196.** The probability of drawing a black card from the black cards is.....

A. 3

B. 2

C. 0

D. 1

**Answer:**



**Watch Video Solution**

197. The probability of getting two tails when two coins are tossed is.....

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

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

C.  $\frac{2}{3}$

D. None

**Answer:**



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**198.** There are..... Cards in a pack of playing cards.

A. 19

B. 16

C. 52

D. 50

**Answer:**



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199. IF  $P(E) = 0.05$ , then  $P(\bar{E}) = \dots\dots\dots$

A. 1.35

B. 0.95

C. 9.5

D. 1.5

**Answer:**



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200.  $P(G) = \frac{4}{17}$ ,  $P(\bar{G}) = \dots\dots\dots$

A.  $\frac{13}{17}$

B.  $\frac{3}{17}$

C.  $\frac{7}{17}$

D.  $\frac{1}{17}$

**Answer:**



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201.  $P(N) + P(\overline{N}) = \dots\dots\dots$

A. 0

B. 1

C. 3

D. 7

**Answer:**



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202. A baby is born the probability that it is a boy(or) girl is.....

A. 1

B.  $-\frac{1}{2}$

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

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

**Answer:**



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203.  $P(E) + P(\bar{E}) = \dots\dots$

A. 1

B. 2

C. 3

D. None

**Answer:**



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204. Identify the statement. Which is correct?

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

B.  $0 < P(E) < 2$

C.  $9 \leq P(E)$

D. none

**Answer:**



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**205.** There are.....face cards.

A. 1

B. 2

C. 4

D. None

**Answer:**



**Watch Video Solution**

**206.** Probability can never be.....

A. 0

B. 1

C. 0.5

D.  $-2$

**Answer:**



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**207.** A dice is tossed once then the probability of getting an even number or a multiple of 3 is.....

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

B.  $\frac{2}{3}$

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

D. None

**Answer:**



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**208.** The probability that a leap year has 53 sundays is.....

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

B.  $\frac{3}{7}$

C.  $\frac{1}{7}$

D.  $\frac{21}{17}$

**Answer:**



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**209.** Two dice are thrown once together. What is the probability of getting a doublet?

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

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

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

D. None

**Answer:**



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210.  $P(E) - 1 + P(\bar{E}) = \dots\dots\dots$

A.  $-2$

B.  $0$



C. 9

D. 2

**Answer:**



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**211.**  $P(E) = 0.455$  then  $P(\bar{E}) = \dots\dots\dots$

A. 0.545

B. 0.145

C. 0.345

D. None

**Answer:**



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212.  $P(A^1) = \dots\dots\dots$

A.  $\phi$

B. A

C.  $1 - P$

D. none

**Answer:**



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**213.** Karishma and Reshma are playing chess. The probability of winning Karishma is 0.59. Then probability of Reshma winning the match is.....

A. 1

B. 0.46

C. 0.5

D. 0.41

**Answer:**



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**214.** Vinneta said that probability of impossible events is 1, Dhanalakshmi said that probability of sure event is '0' and Sireesha said that probability of any event lies in between 0 and 1. In the above with whom will you agree?

A. Vineetha

B. Dhanalaksmi

C. Sireesha

D. All the three

**Answer:**



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**215.** A page is opened at random from a book containing 90 pages. Then the probability of a page number is a perfect square is.....

A.  $\frac{90}{90}$

B.  $\frac{2}{90}$

C.  $\frac{1}{90}$

D. none

**Answer:**



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**216.** The probability of picking a king card from a well shuffled deck of playing cards is.....

A.  $\frac{1}{13}$

B.  $\frac{1}{26}$

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

D. 1

**Answer:**



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**217. Getting a prime (or) composite**

A. Mutually exclusive

B. Equally likely

C. 0

D. None

**Answer:**



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**218.**  $P(E) = 0.65$  then  $P(\bar{E}) = \dots\dots$

A. 0.25

B. 1



C. 0.35

D. 0

**Answer:**



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

A. 0

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

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

D. 1

**Answer:**



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**220.** Which one of the following cannot be the probability of an event?

A. 0.7

B.  $\frac{2}{3}$

C.  $-1.5$

D.  $\frac{4}{5}$

**Answer:**



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