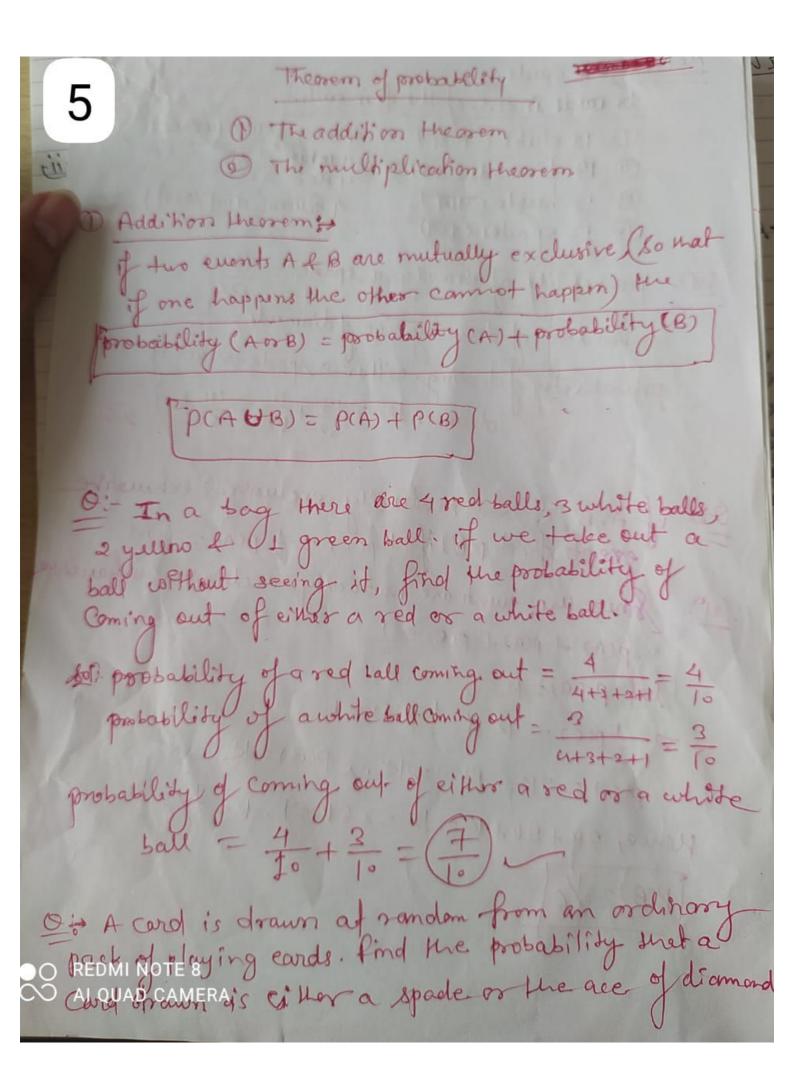
3 Equally likely enonts. The outcomes are said to be equally likely if none of them is expected to occur in preference Independent events, Events are sailed to be independent of the occurrence, of one does not affect the other event, then they are said to be dependent Exa: probability of drawing The result of the first toss of a coin does not affect un result of duccessive tosses at all. Dependent events :> if the occurrence of one event affects the happening of the orther event, then they are satel to Ube dependent events. Eaa, the probability of drawing on ace from a pack of s2 ands le 4/s2. If the and I had replaceed before the seemd draw, the probability of getting an acc again is 3/51 as there are now only 51 cards lift ethey OCREDMINATES Ly 3 aces.

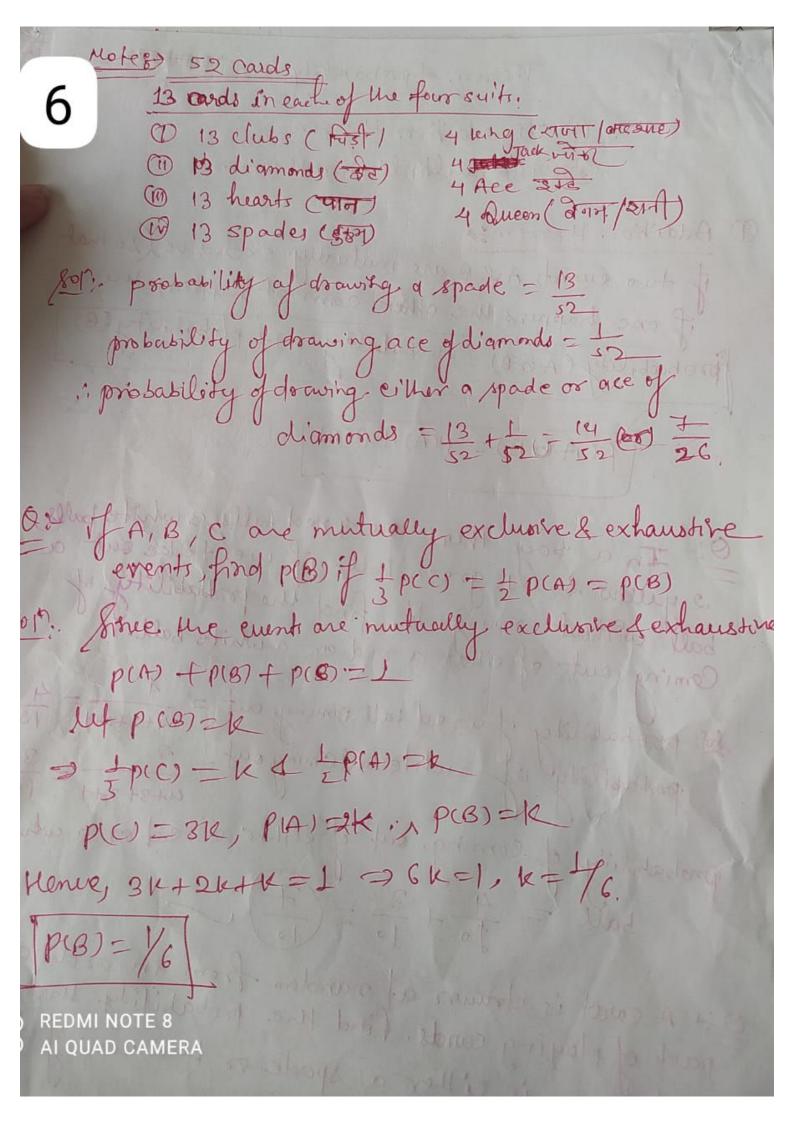
Bobability ratistics to the Science of decision making with calculated enables us to take decision under Conditions of uncertainty with a calculated risk. the sheary of poobability has its origin in the games of chance related to gambling like drawing cards from a pack of cards or Horowing of dice, _____ etc. ferminalogy D Rondom experiment :> Random experiment & is called a rondom experiment of when conducted repeatedly under essentially homogeneous conditions, the result is not inique, The it does not give the some result. The result may be my one of the various possible Exa: 10 measuring blovel pressure of a group of individuals @ checking om automobil's petrol mileage 3 Tossing a coin 4 observing the face that appears. Testing a product to determine whether it is defective or on acceptable product. REDMINOTERRY daily rainfall, (Som

Sample space : The set of all possible distinct automes (cuents) for a random experiment is called the sample space (event space) provided. O noture er more of these outcomes can occur simultaneously, Dexaetly ene of the outcomes must occur, whenever me experiment is performed. Consider the experiments of recording a person's blood type. The four possible outcomes are the following simple events. E, = Blood type A, E2: Blood type B B= 11 type AB, Eq: 11 type O The sample space of S= { E1, F2, E3, E4}. 1 Tossing two coin Simultaneously E1= HH, F2= HT, E3=TH. E4=TT To be to the pulling the pulling of ample mentary Events of E is omy subset of the sample space. Then its complement denoted by E. Contain all the element of the sample space Plat are MINOTEPS and of E.

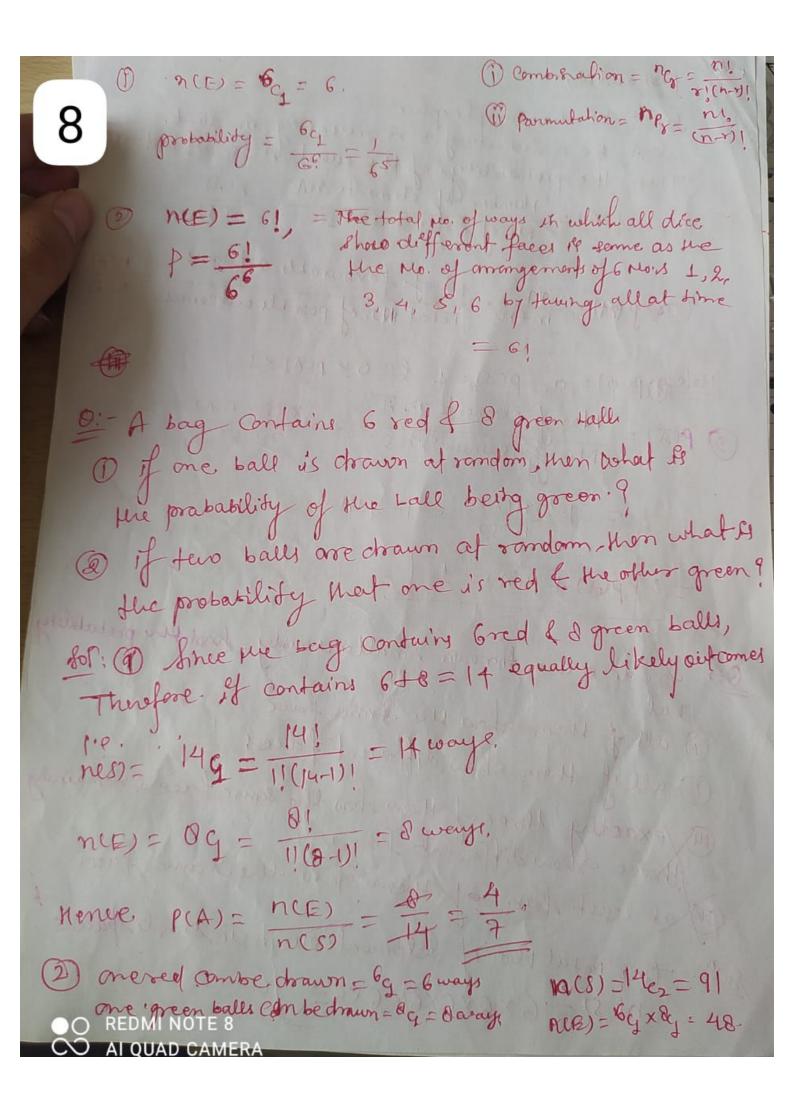
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E = S-E = {all somaple elements not in E?





A bag Carrains dependent events occurring successively, the multiplication of used. TP(AB) = P(A) x P(B) probability that both time it will be head upward? or poobability of head upward in the first toss 21/2 probability of head upword in the 2nd toss = = prober 11 11 of head upward in both tosses = 1 x 2 24 - what is the probability of throwing two forms in got probability of a four in pst throw = 1/6 probability of a four it 2nd throws = 1/6 Hence, probability of throwings two fours who two
Homes = 4x 1/6 = 36



probability let's bethe sample space Then the probability of the event A is defined as

p(A) = Mumber of elements in A _ n(A)

No. of elements of S n(S) No of favourable out comes n(A) (08) p(A) = m+n= n(s) Total 100, of possible outcomes Mote + p(p) = 0, p(s) = 1 & 0 < p(A) < 1 (3) P(A) = No. of elements in A No. of elements in S $= 1 - \frac{n(A)}{n(S)} = 1 - p(A).$ > | P(A) + P(A) = 1 Dix dice are thrown himultaneously. And the probability (1) all of them show the same face (1) all of them show different faces Assee show different faces.

At least four of them show the same face. I's The Fotal No. of element events it sample spaces REDMINOTE & GXGXGXGXGXGXG= 66.

Totald Event, proforming, of a random experiment is called a (Trial' and outcome or outcomes are termed as 'events'. for instance, torning of a coin would be called a Trail de the nesult (felling head or tail upward) an event. Exhaustive care. The total No. of possible outcomes of a random experiment is called the exhaustive cases for the experiment. Eaa: in toss of a single coin, we can get head or Tous. Hence exhaustive No. = 2 favourable cases or events. The No. of outcomes which result in the happoning of a dented event are called favourable cases. eg: In the drawing a card from a pack of cards, the cases favourable to getting a heart is 13 & getting a large is 4. Mutually exclusive events: Two or more events one said to be mutually exclusive if the happening of any one of them excludes the happening of all others in the same experiment. Exa: In toss of a cosh the events "head" and tail are O PREDIMINIONE 8 exclusive because if head comes, we can't get head comes we can't get head

10 Three students A, B&C are given a problem the statistics. The probabilities of their solving the problem are 3/4, 9/4 & 1/4 mespelling. what is the probability that if all of them toy, she problem would be salved ? 50%: probability. that A will fall to solve the problem -= 1-3-4 probabling west B will fail to solve the problem $= 1 - \frac{2}{4} = \frac{2}{4}$ probability that c will fail to solve. The problem : probability that all the students A, B&C will fail to solve the problem = 4 x 2 x 3 = 6 lenie, the probability that if all of them by, the problem would be solved = 1-6 = 50 or 29 and the strain with some production and in some of and oppositely the plant of the sold

REDMI NOTE 8

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