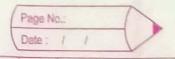
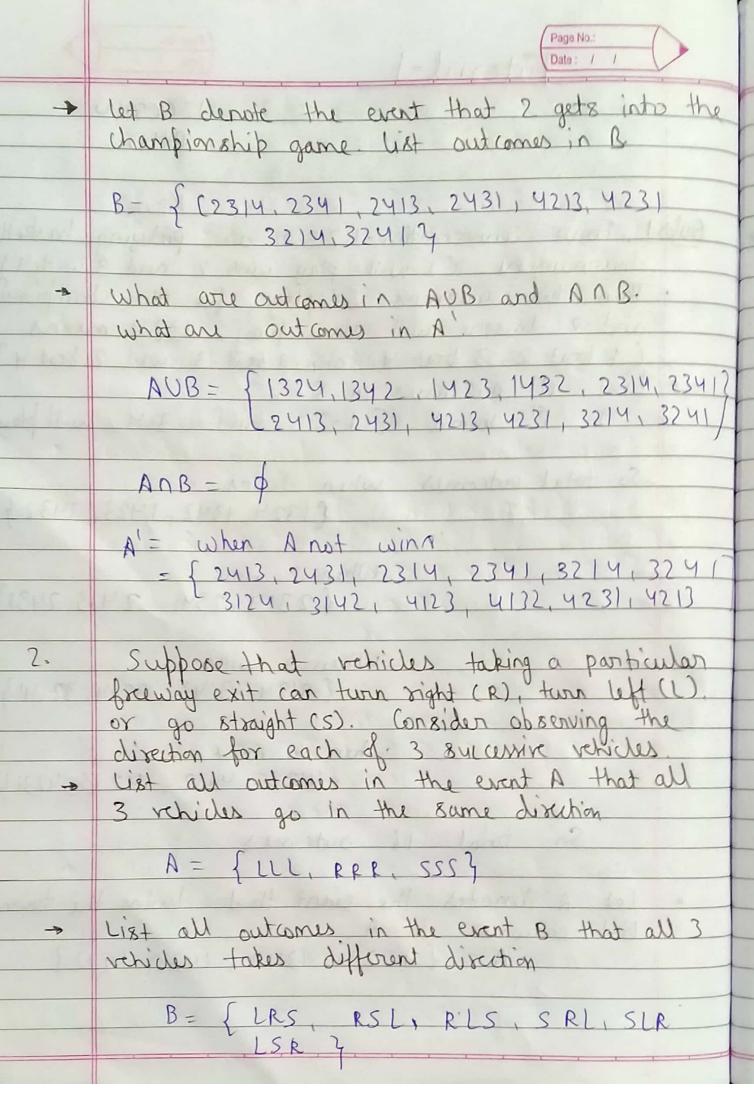
## Tutorial-1



## NSOCZIIO

	The project of the same of the
	SSH SUCH CAEKE SAME SAME SAME HSS
Sub	I Four universities-1,2,3,4 are palying baskettall
	townsment (I will play with 2 and 3 with 4)
	Then two winners will play for the championship
	and 2 loosers will also play. 1324 means
	(1 trat 2 3 treat 4 a 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	(1 treat 2, 3 treat 4 and 1 treat 3 and 2 treat 43
	List all outcomes in 5
	In 1st bound [1-2 and 3-4 willplay)
	So total outcomes when I wins
	£1324, 1342, 1423, 1432}
	The same of the sa
H S	When 2 wins {2314,2341,2413,2431}
	{2314,2341,2413}
to!	When 3 wins
	{3124,3142,3214,32,41}
	The principality of the second
	when 4 wins
Tu	{4123, 4132, 4213, 42314
	So total 16 outcomes
	TO COTAL (6 OUTCOMES
	101 0 10001 11 0 001 11 1 1 1 1
	let A denotes the event that I wins the townson
	list outcomes in A.
	A = { 1324, 1342, 1423, 1422}
_	



- list all outcomes in the event c that exactly two of the 3 vehicles turn right. C= {LRR, SRR, RLR, RRL, RSR, RRS two vehicles go in the event p that exactly D= } LRR, RIR, RRL, SRR, RSR, RRS, LSS, SLS, SSL, SSR, SRS, RSS RLL LRL, LLR, SLL, LSL, LLS 3 - list outcomes in D' CUP and CND D'= fill, RRR, SSS, LRS, RIS, SLR, SRL LSR, RSL y - fall in some direct or all in different. CUD= D 3. A certain system can expersion ce 3 different types of defects. Let Ai (i=1,2,3) denote the event that the system has a defect of type is Suppose that  $P(A_1) = 0.12$ ,  $P(A_2) = 0.07$ ,  $P(A_3) = 0.05$   $P(A_1 \cup A_2) \ge 0.13$ ,  $P(A_1 \cup A_3) = 0.14$ ,  $P(A_2 \cup A_3)$ = 0.10, P(A, VA2 VA3) = 0.01

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-> cd	does not have type I defect?
50-	P(A, ) = 0.12 P(A2) = 0.07 P(A3) = 0.05 P(A, UA2) = 0.13 P(A2 UA3) = 0.10 P(A, UA3) = 0.14
	P(A, NA2 NA3)= 0.01
	P(Ai)= 1-P(A1) = 1-0.12 = 0.89
<b>→</b>	Probability that system has both type I and type 2 defeats?
	P(A, NA2) > P(A) + P(A2) - P(A, UA2) = 0.12 + 0.07 - 0.13
	= 0.06
<b>→</b>	Probability that system has both type I and type 2 defeats but not type 3 defeats  P(A, DA2 n A3) = P(A, n A2) - P(A, n B2 n B3)  = 0.06-0.01
Sd-	$= \frac{P(A, DA2 \cap A3)}{P(A, DA2)} - \frac{P(A, DA2 \cap A3)}{P(A, DA2 \cap A3)}$
<i>→</i>	what is the probability that system has at most two of their defects?
	P(ad most 2) = 1 - p(all three)
	= 1-0.01 = 0.99

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4.	Consider randomly selecting a single individual and having that pensor text drive 3 different
tests	Consider randomly selecting a single individual and having that person text drive 3 different rehides. Define events A1, A2 and A3 by A1= likes vehicle # 2
	A3 = likes rehicles #3.  Suppose that P(A1) = 0.55, P(A2) = 0.65,  P(A3) = 0.70, P(A1UA2) - 0.80, P(A2 N A3) + 0.40  P(A1UA2 UA3) = 0.88.
	0.88
+	What is the probability that the individual likes both value # 1 and # 22
	P(A1 NA2) = P(A1) + P(A2) - P(A(WA2)
114	0.80 - 53.0 = 0.80
	= 0.40
-	Determine and interpret P(A2/A3)
	$P(A_2 A_3) = P(A_2 \cap A_3) = 0.40$
	P(A3) 0.70
	= 0.5714
	meas probability of Az when Az has been already occurred
-	Are As and Az independent events, Answer in 2 different ways.  P(Az NAz) - 0.40
29	P(NZIINZ) = U. 90
	P(A2).P(A3) = 0.65 x 0.70
	P(A2 NA3) + P(A2) · P(A2) · are dependent

