	Page No.	
	Practical-1(A) Date	
offin !	Classical probability	100
	find the probability of getting number divisible by	5 to (
>	Coole	14
	> total outcome < 6 > alvisible by 5 < 1 > P of dw 5 < divisible by 5/ total outcome > print(paste("answer is", p of div 5))	
	[1] "answer is: 0.1666666666666667"	190
los h	ورد الله مديمة المن ور مدونية مد ورو ورو ورو	160
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				113)
5.10			111119	
OP [1] "Proba	bility 18: 0.076	923076903076	11 - 1 - 1	910
		1012070		
0.3] find the pr	mphilips of a			
	DEADLING OF O	rawing an kir	g from q	red cords
→ code	The state of the s			
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king_ Care	42-2			
SPK- King	candy total red	2: 1:		
mint out	e ["arswer 18:	('Oral		
Spirity (past	Clarpmer 18;	(1)		
OIP [i] "arswe	r 1'8: 0.07692	30769230740	1	
	, 00	103230109		

Prac- 1 · B	Page No.
B elementary Theorems of probability	Colonia de la
	1 12 12 1
c. I find the probability of rolling an even	
four dice	number or 4 on a
) cools:	mkn losofy
# Addition Rule Example	A CONTRACTOR OF THE PARTY OF TH
Train outcome <-6	100 state white
even nymber 43	History .
p even nymber 2 even nymber/total out	Homo
D Dund	- Correction of the Correction
Prumber 4 <- number 4 / tated actor > Probability even number or 4 <- p ev	re my hours
aren number or 45- 6 en	en_number + P number 4
Sprintleastel "and - (1/total our	(Come)
print(pastel "answer is", probability over	number or 4)
OIP [1] "answer is 0.5"	
of "answer 1'8: 0.0192307692307692"	
of "answer 1'8: 0,0/92307692307692"	
TO THE OWNER OF THE PARTY OF TH	

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(0.2) find probability of rolling an odd nur	sala - numala divisit
by 3 on a few dice.	noter by hymber ourisibu
Code;	4044 543 FA 541 1
	Court diff.
Stotel autions <-6	
Sodd2-3	
divisible by 3 <- 2)
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P divisible by 3 < divisible by 3/tot	fal nutrama
propability add divisible 32-P add+P	divisible by 0-
-/1/fn	feil nutramel.
print(postel "answer is =", probability	odd dhusible 311
1. Annual Maria De La Company	
Lemman Lambridgua 711) -	
OIP answer is = 0.6666666666666	Makes Makes
	9
2,0 21	Marino" Pillio

@ Multiplication Theorems to probability of drawing a red cand and then drawing a face avid from a pack of avids. Code: Hotal Cards 2-52 I red cards 2-26 > face carroly 1-12 p red Carids & red cards/total covids P face Cards 1- face cards/ total cards A probability red cards and facecards 2-P red cards * P face conds print (paste ("answer is = " probability red cards and fecceards) off answer is = 0:115384615384615 of probability of drawing a diamond (and and then drawing a ace from black cards. Lode: 5 <- 52 Seven A 6-13 XT 4-26 Sevent B L-2 XPAL- event_AIF NPB/- event BIT > probability 2- PA * PB print (parte (" answer is;", probability off "answer 1'8: 0:0192307692307692"

	Occasi's 1	Page No.
	Practical-2	Date
(1	D Example Based on Independence	
		(Capturday)
0	The han here have a select ship as	Sole of the second
9	1 Suppose we are rolling a fair six-sided a feat coin. Let event A be action	die and flimin
	a feet soin let event A be getting a Land event B be getting head on the Cain	1 on the die.
	and event B be getting head on the Coins	
2 1		635A
Cocle	29 -1 -1	
	Southern Co. 1	2 6
	Soutcome dict 6	1 mana
	outcome 42-1	have of !
el one 2 s	Soutcom H <- 1	223711
harminal.	Sprobability 41-nutrami 11.	dod no.
	BUTURUDITED HILL NINGEN A 1.1.	Add a
	- Dobahilitu 11 * Bolat 11	ty 11
	print(paste ("answer is", P-4, H))	100. 419
vicusesh	and has too too it	
OL	answer is 0.083333333333	space (b)
		00
	21.50	C-75 (1937)
	10	1 14 /
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11	1000 (2: 00)303076322	ano" de

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~	7	
Q:	2) A be the event of prime number on rolling a di	'co 'and
	Bis event of getting at least 1 head on thrown	of arains
1110		01 200119
Code	e: thirdependent event	Prop.
	the independent of the second	
(outcome dia 6-6	
->	autome coins <-4	1000
	event A <- 3	Cohol
	event B2-3 substitution	1
	P event A 2- event A outromo dice	
	event R 2- Prent 'Planteame cain's	2
	Probability A D C- P ment A # P ment P	2
>	Print(Paste("answer is", probability A B)	1
-	Print(Paste("answer is", probability A B)	,
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
ntp	to terrina planet Comman dement lautome the	*
2 4	answer is 0.375	
	Children is the health being thing	1
	FARARARARA A. Hildwigner	71.
	tabaaaaaaa P! Ptilidelove	110
11 "		
THE RESERVE AND ADDRESS OF THE PARTY.		THE RESERVE OF THE PARTY OF THE

Conditional probability Coil find the probability that a single toss of a die will acsult in a number less than 4 if it is given that the toss resulted in an odd number. Code: Duttome dice <-6 Dad number <-3 Less than 4<-3 Less than 4<-2 Less than 4<-12			
B Conditional probability Co. If find the probability that a single toss of a die will acsult in a number less than 4 if it is given that the toss resulted in an odd number. Code: Doutcome dice 2-6 Dodd number 2-3 Less than 46-3 Less than 46-10 P Lesthan 46-		Page No.	
Co. I find the probability there a single toss of a die will acsult in a number less than 4 if it is given that the toss resulted in an odd number. Code: Dutcome dice 2-6 Dad number 2-3 Less than 42-3 Less than 42-3 Less than 42-3 Less than 42-3 Less than 42-10 probability Podd number 2-0dd number outcome dice Plessthan 42-10 postan 4 outcome dice Plessthan 42-10 postan 4 outcome dice Probability 2-P common element outcome dice Print pastel "probability is." probability		Date	
Co. I find the probability there a single toss of a die will acsult in a number less than 4 if it is given that the toss resulted in an odd number. Code: Dutcome dice 2-6 Dad number 2-3 Less than 42-3 Less than 42-3 Less than 42-3 Less than 42-3 Less than 42-10 probability Podd number 2-0dd number outcome dice Plessthan 42-10 postan 4 outcome dice Plessthan 42-10 postan 4 outcome dice Probability 2-P common element outcome dice Print pastel "probability is." probability	(B) Condition		
Co. I find the probability there a single toss of a die will acsult in a number less than 4 if it is given that the toss resulted in an odd number. Code: Dutcome dice 2-6 Dad number 2-3 Less than 42-3 Less than 42-3 Less than 42-3 Less than 42-3 Less than 42-10 probability Podd number 2-0dd number outcome dice Plessthan 42-10 postan 4 outcome dice Plessthan 42-10 postan 4 outcome dice Probability 2-P common element outcome dice Print pastel "probability is." probability	- cartonal probability		
code: Doutcome dice 2-6 Dodd number 2-3 Less than 42-3 Common element 2-2 the finding probability prodd number 2-odd number outcome dice Plesthan 42- less than 4 outcome dice Plantan 42- less than 4 outcome dice Probability - Prammon element outcome dice probability - Prammon element probability print pastel "probability is:", probability			
code: Doutcome dice 2-6 Dodd number 2-3 Less than 42-3 Common element 2-2 the finding probability prodd number 2-odd number outcome dice Plesthan 42- less than 4 outcome dice Plantan 42- less than 4 outcome dice Probability - Prammon element outcome dice probability - Prammon element probability print pastel "probability is:", probability	Q. If find the potal!!!		
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Doutcome dice 2-6 Dodd number 2-3 Less than 4x-3 Less than 4x-2 Less than 4x-2 Less than 4 contains dice P Less than 4 c- less than 4 outcome dice P Lammon Plement 2- Common element outcome dice Probability 2- P common element p odd number Print (paste ("probability is:", probability)	A A A A A A A A A A A A A A A A A A A	200 due	4 1
less than 42-3. less than 42-3. common element 2-2. It finding probability Podd number 2-odd number outcome dice Pless than 42-less than 4 outcome dice Plantan 42-less than 4 outcome dice Plantan 42-less than 4 outcome dice Probability 2-Promon element outcome dice probability 2-Probability 18:", probability)	Code'	South 1	1
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tt finding probability p-odd-number 2-odd number outcome dice P-lexthan 42-less than 4 outcome dice P-common plement2-common element outcome dice probability 2- P-common element 1 p odd number print(pcstel "probability is:", probability)	> 1888 thon 44.77	11300	1
P Leathan 4 <- less than 4 outcome dice P Leathan 4 <- less than 4 outcome dice P common plement / common plement / outcome dice probability <- P common plement / p. odd number print (prestel "probability is:") probability)	common almost / a	formus_	11
P Leathan 4 <- less than 4 outcome dice P Leathan 4 <- less than 4 outcome dice P common plement / common plement / outcome dice probability <- P common plement / p. odd number print (prestel "probability is:") probability)	It finding appalitude	STORALLY.	11
P_common element? - common element! outcome dice probability? - P_common element! p odd number print(priste("probability is:", probability)	P md number (odd)	Mit de	1 /
probability 2- P common element outcome dice probability 2- P common element 1 p odd number print (prestel "probability is:", probability)	P letthan 112- 1000 the will authorize dice	20000	1910
> print(poste("probability is:", probability)	P. Common Plan anti		-
probability)	probability: B	ne dice	
probability)	prist prist of a common element p and nu	nber	Jio a
0 9 probability is 0.66666666667	probability)		
0 9 probability is 0.66666666667			
Propability 15 0.6666666667	018		
	probability 18 0.666666666667		
		Samuel College	OF STREET

Practical-3.0 @ Probability Distribution of Rordom variable. Q. 1) Rolling a fair Six-SIDED DICE Coole. Dut come 2-1:6 It finding probability probability-rep(1/6,6)
(cat (" outcome) probability outcome | probability > for(in 1:6) S # Catloutcomes ri7" -", probability [i], "\n") 0.1666667 0.1666667 0.1666667 0.1666667 01666667 0.1666667

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(7	Probability MASS Function		Allion
10,000	THE FUNCTION	tarad sau	4
	, phlace	out bo	*
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Cod	0 -		1.000
	Will FOATS A COLOR FOR THE	1000	1 /
	# probability mass function poutcomes <-1:6	all de do	- C 7
	probability 2-rep(1/6,6)	2-52	ma 1
	Pmf <- function(x)S	12-8)	211
	if (x / in/ outcomes)S	1 Jane	904
	+ return (probability [nutermes = =x])		THE
	-3	231	294
	t else s	g) arut	000
	- setwin (o)	-	P H
	7		P. H-
)	for (i in outcomes) S (at(i, "", pmf(i), "\n")	17 1 1	YOTK
	(at(i, "", Pmf(i), "\n")	1 110	7,
+	-2		- 1
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019	1 0.1666667		
	2 0.1666667		- 2
	30.1666667		- 14-
	4 0.1666667		= 7
	5 0.1666667		- 3
	6 0.1666667		
	170 ==		- 9
	u P O		

		Page No.
0.2	A number is drown at random form a box	contains 1 dala
	numbers check, is it PMF? if PMF then sh	ow the outcomes
	and probability.	
	gont hold-110-110 o	anila 1160
Code:		
	# Probability max function	d along
\	box <-1:10	10.10
	probability <- rep (1/10,10)	Smarker !
	Pmf2-function(x)	Midrodonal
-+	if (x 1/2 in 1/2 box) &	
+	octurn (probability box == x)	14 × 1414
#		interior -
	elseş	
117	retruin(o)	138194
1	4	attubert 1
7	1 () in tool (10.4
	for (1 in box) \$ 2at(1, "", pmf(1), "\n")	
, 5	(df(1) / f(hf(1), h)	I I I I I
+ #		84
019 1	0,l	
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	Practical-4 Practical-4	7
eim!	* That 2) and a distribution of the same and the same	0
		100
A	retent of auscrete and continuous probability dustribution	
code>	the mean of due to the little	2
	Dutcome < 1:6 probability <- rep(1/6,6) mean <- Sym(outcome * probability) Cat("mean is", mean, "\n")	919
OIP	Constitution of the Consti	
	Mean 19 3.5	
}		

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_		
2	Mean of continuous probability dustribution (Standard	week 11
	prompting austribution (Standard	normal)
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-	Mean (stats) Cat ("mean is", mean can)	
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	Prac-4-B		
B	Delayion .		
	variance and S.D of discrete and continuous productivi bution	habile	٦.
	abution.	DODIII	19
Code !	(21-22)	andis.	,
- Collection of the Collection	the contract of the contract o		,
	Outcome of probability Distribution		1
	Terrania (2004	
	probability < rep (1/6,6)		
1	mean <- Sum (outcome *. Probability)	1600	1
,	Variance 2- Sum (putcome - mean) 12 * probability)		
	S.D. Squt (variance)	neg	110
	(at("variance is=", variance,"\n")	,	
DIP	Latinitas may "21 stationary"	1400	4
	Variance is = 2.916667		16.0
	201000111 0001	104	no.
>	Cat ("Steindard deviation is=", S.D."\n")		
010	10/11, tugunisma h2, "= 81 h2"	17:00	6
OF	Standard deviation is=1.707825		Dit
	EAnton!: v	0	J'e
	Cold variants of Variants In I		
	Canal Ares = 1.55		
	Fall Strandard durature Statistics		
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		-
(2) Continuous probability Distribution		
· Complete to the complete to		
> # variance and S.D of Continuous probate	pility Distrib	ution
1101019191011	9	
> reardom< roum(10000)		
> mean continuous < mean (random)	1 111 1111	
> var continuous <- var(random)	1 - Danatha	32
Sd Continuous - Sd (random)	Apklines.	
> cost("me on", mean continuous, "In")	mus paran	1/
OIL magn 0.01738433	us ristarion	11
11001 0.01430433	1 1000	1
> cat("variance is", var continuous, "In")	MEIODY'S	0.
real voodand is van continuous, in		Talle.
Off Variance 18 1.000/06	2 At compare	2 3 '
	A LANCE PARTY	
> (cut ("Sd is=", Sd. continuous,"\n")	8040HZ) +0	
100g C 30 100 , 301_001411110000, 111)	-le 1 -1 -1 -	70.1
M Sdis = 1.000053	KITCH GENERAL	1
34 15 - 1,000033		

	Proctical-5	Date
<u>Aim</u>	Standard probability distribution	Called and Call
	Calculate Mean, variona and 3rd based on F A coln is tossed 5 times, find i] Mean ii	
> > > >	n<-5 P<-1 (2 9 <-(1-P) nean<-n*P variance <-n*p*9 5.d <-sqrt(variance) cat("mean", mean, "\h")	
910	megn = 2.5	
>(iat (" variance =", Variance," n")	
off.	variance = 1.25	
> 0	out ("Standard deviations", S.d.," \n")	
016	Standard deviation=1.119034	
J		

	Page No.	
	Date	
6		
(B)	probability of normal distribution	
	3	
Q	final the manality	
30 .	find the probability of 2.3 in normal distribution	
		,
>	x values 2-2.3	
>	probability2-provm(x Natura)	
	probability 2-prom(x values) (Cat("prob. of 2.3 in roomal distribution=", probability)	
	of 23 monning constantions, propability	
		_
010		
7	Prob. Of 2.3 in normal distribution = 0.9992759	
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	Marine Large North Co.	
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	Call Andread Carlot	
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	the state of the s	