	200	
Pusbability & Statistics Date:		1
Ali Mulammed ifeard	-U.E.	7
va07190		P
Assignment #01	15	1
And the second s	E	N
OI) 5 Red, 10 White, 10 Black, 5 Orange	E.	T.
	es .	V
Total Balle = 30 P(R) = 5/30 P(W) = 10/30 P(B) = 10/30 P(O) = 5/50 P(R) = 5/30 P(W) = 10/30 P(B) = 5/50 P(R) = 5/30 P(W) = 10/30 P(B) = 5/50 P(R) = 5/30 P(W) = 10/30 P(B) = 5/50 P(R) = 5/30 P(W) = 10/30 P(B) = 5/50 P(R) = 5/30 P(W) = 10/30 P(B) = 5/50 P(R) = 5/30 P(W) = 10/30 P(B) = 10/30 P(W) = 5/50 P(R) = 5/30 P(W) = 10/30 P(W) = 5/50 P(R) = 5/30 P(W) = 10/30 P(W) = 10/30 P(W) = 5/50 P(R) = 5/30 P(W) = 10/30 P(W) = 10/30 P(W) = 5/50 P(W) = 5/30 P(W) = 10/30 P(W) = 10/30 P(W) = 5/50 P(W) = 5/30 P(W) = 10/30 P(W) = 10/30 P(W) = 5/50 P(W) = 5/30 P(W) = 10/30 P(W) = 10/30 P(W) = 5/50 P(W) = 10/30 P(W) = 10/30 P(W) = 10/30 P(W) = 5/50 P(W) = 10/30	es.	V
(a) Orange or Red = P(0)+P(K) = 30 1 138		10
		0
(b) Veitler Red vor Black = 1- [P(R) + P(B)] = 1- [5/30 + 10/30]	4	Û
= [-[730] + 730] $= [-[15/30] = 15/30$		8
2 1/2		0
(c) Not Black = 1 - P(B) = 1 - \frac{12}{36} = \frac{36}{36}	0	0
= 42	4	-
P(R) = P(R) + P(R)		-0
= 130 + 130 + 130 SU		-0
= 5/6		-0
		0
02) 5 Red, 5 Black, 5 White		6
+ Red Ball is twice as likely than while so state.	N.	-65-
(a) & $P(R) + P(B) + P(W) = 1$ P(R) = P(B) = 2R $P(R) = 2R(W) = 2R$		-01-
Dax +x+x=1 PCF/2CI(W)=2x		-0
$\Rightarrow 4x = 1 \Rightarrow x = 14$		-
$\frac{P(e) = {}^{\circ} 2({}^{\prime} {}^{\prime} {}^{\prime})}{(1)^{\circ} 1 + 1} = {}^{\circ} 2$		-
(b) Neither Red wor Black = 1-[P(R) + P(B)] = P(W) = 1/4	0	4
[202]	N.	7
(c) Not Black = 1- [P(B)] = 1-4	1	7
	T	7
(d) Red, White or Black = 1 Latt elements of the sample sports	4	7
VIIIV	1	不

		## 15 10 10 10 10 10 10 10 10 10 10 10 10 10
5	1	Date:
		Q3) Two 4-sided die thrown similarmonsty
	3	If Sum is 5, what is the probability at least one of
-5	3	the die had 3.
-5	0	
-	1	D2 1 2 3 4 Sum is 5: {(1,4), (4,1), (2,3), (3,2)
	9	1 2 3 4 5 Die land 3: {(2,3), (3,2)}.
	19	2 3 4 5 6 AURILIBETER
	3	3 4 5 6 7 P(E) = P(3) given that sum is 5.
0	13	4 5 6 7 8 P(E) = 2/4 => P(E) = 1/2
	13	
0	3	94) 5 Red, 10 White, 10 Black, 50 range Total = 30
1	18	I Two Balls chorn without replacement.
0		(a) Pad & Pad
0		P(R & R) = 30 × 29 = 2/87
0	3	
((b) Red & Orange P(P&O) = 5/30 × 5/29 = 5/174
R	T	The state of the s
	- 60	Q5) P(WI)=0.4 P(E)=0.4 P(4)=0.2
2		P(Pww) = 0.6 P(PwE) = 0.4 P(PwA) = 0.6
6		
2		0.6 w P(Pale Wins) = 0.4(0.6) +0.4(0.4)
3		0.4 MI < 1 + 0.5(0.6)
7	(39)	10.4 E 0.25 = 0.25
1	-	0.2 0.6
2		April
17	_	
1	702	
7	-70	The state of the s
(3)		
		ALBA
-	100	

Date:		0
Q6) Taris, 1 Blue & 99 Grucer	6 :	-0-
Witness, son blue: 99% san graces: 2%		0
as blue as blue	S	0
BE Pado, taris was blue given that the witers saw blue	-	9
P(Witness said blue 1 blue) = 0.99	100 Sec. 11	0
P (" green) 2 0.02	-	9
P(Blue Vitness Said Blue) = P(W.S.B Blue) P(Blue)	- Ober	3
P(Blue 1 Witness Sound Blue) = P(W.S.B)	-	6
0.99 × 0.01	man distrib	9
[(0.99×0.01)+ (0.99×0.02)]		9
The Pushability that tani was actually live is 33%.	- cites	9
the second secon	Sugar	6
(: "B" > P(H) = 0.49 D(T) 20.51	250	96
Gin "B" > P(H) = 0.52 P(T) = 0.48 Coin "C" > P(H) = 0.5 P(T) = 0.5	0.00	0
B Equally likely to select any coin. Flip 7 times.	8	0
	8	<u></u>
(a) Parties $P(417R) = P(4N7H)$ $P(7H)$	0	_0_
Ving Bayes' Rule . P(4174) = P(4)P(7414)		0
the state of the s	5	0 -
$\frac{2 \frac{13}{3} \left[0.49\right]^{\frac{7}{2}}}{\frac{1}{3} \left[0.49^{\frac{7}{2}} + 0.52^{\frac{7}{2}} + 0.50^{\frac{7}{2}}\right]} = 0.272$	8	9
	6	D D
(b) P(B174) = \$ [0.52] [0.49] +0.52+0.50]	Y	57
(c) PCC 17H) = \$[0.507] =/\$[0.497+0.527+0.507]	7	5
2 0.314 ABA		3
	& V	at the

	Date:
	03) 4 Trails, each with 2 ento trails.
7	4 sidel die flipping a soin
	ekson und 270
	VIM 2 V2D P(D) 2 4 [4 x 2]
1	in 1/2 => P(D) = 1/2
	4 VZ D
0	1/2 70
-	09) Yorker 2 80% & Full toss = 1-0-82 20%
T.	809) Yorker 2 80% 5 Full toss = 1-0-82 20% Boundary 2 20% Boundary = 90% 5
6	0.7,13
0	9 7037B P(Boundary) 2 0-8(0.2) + 0.2(0.9)
2	= 0.34
0	0.2 FI
C	9 7 7 S
C	3
C	(Q10) A= 1st Roll = 1,2 - 4
	B = 1st Roll => 1,2 or 5
•	$9 - P(4) = \frac{3}{6} = \frac{1}{2}$
C	$P(B) = \frac{3}{6} = \frac{1}{2}$
- (= 9 Independent => P(AnB) = P(A)P(B)
-6	P(ADB) = 1/6 = 1/3
	P(4)P(B) = 1/2.1/2 = 1/4
	P (4 18) 7 PE) P(B)
	Therefore they are not independent.
*	
6	
6	
6	
. €	
BA (ALBA
0	Alba