	gart.	dimental to	Line Charles	
	SENG 474 - Assignment	1	DerropBon	श्रीक रे
			JOOR37868	-
1.	a) Entroy = Zin P(x) 100	P(zi)	A Agreeta 1	
Φ	Age-	181,	N. Carlo	
•	P(young)=1/3 .P(pre-pr	eshumic))= 3.7(presp.cois)-/3	
3	Sportacle prescription -	339	81 7	k
•	P(myope) = 1/2 · P(hypermet	mare)=/s	58 2 2 2 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
(3)	Astignatism-		- I mank Sh	7
	P(no) = 1/2 · P(yes) = 1/2	-	Len Cont	
9	Tear-prod-mte-	(al) i) = 1	Nec'A Leation II	-
	P(reduced)= 1/2 . P(normal)=/2	prof & hodosha	-
_	Contact Longes	De horan	Derived to the state of the control	E
•	P(soft) = 3/24 . P(hard= 6	·Plan	2) - €	E
	- J			
	an and and the posters	me Toes	DIA.	
2n	Lufo bet Hard	None	KIRTHER ST.	
	Yaux 1/4	4	-410,(4)-410,(+)-1/10,(b)=1	1.5
0	P	5/8	-410,(4)-410,(4)-1/210,(6)=1 -410,(4)-1/210,(6)-1/210,(8)=1	2 - 3
<u> </u>	Prespecie 1/8/1/8	3/4	4. 5	1-06
	Myope 1/6 : 1/4	1/2	=1-	38
2	Hy cometrope 14 /12	2/3	, '	19
	No 5/12 9/12	7/12 0, 2/3		98
3	Yes 1/2 /3	the second could be		92
	Reduced 9/12 9/12	12/2	060000000000000000000000000000000000000	
-49-	Normal 5/12 1/3	44000	1. Company 200 21.5	
	1,5			

				FC an	- (A-17)	Mothala	
	Expected Age =	(1.5)(/2)+	(1-3)(为+(1-0	06)(/3)	= 1.29	
	For an Land Syans -	(1,39Y /3)+	(1 1 1 1	(5) = 1.	200	1	
	In more Action	+sm = (A-	98 X /2	2) + (0)	1222	0.95	
	Expected Tears	= (0)(2)+	(1.59	(2)=(3.78.	asiret.	
	Liggica			U			
	LVI1	Soft Hard	None				, , , , , , , , , , , , , , , , , , ,
AS ON	Young	2 /2	94	-/3 logs (5)-2/09/	为112	
hand or	Pre-presbuppic	2 4	4	. 0	· · · ·	- 1.5	<u> </u>
	Presbyppin.	4 4	1201	· CAD .			
	Mygpe	1/3 1/2	16		les	= 1.46	0
A .	Hypermetrope	12:0162		ng)4:	- N. c	Gn=1.467	u .
	No	76 76	1/6	- anita		40-50-65	
	Yes	6 3/3	3	and) 1 .		(0070.92	and the same
	Reduced			N. IVIII	1	A mother	5)
	Normal		1 - 2	· 2 (250)	-> (V->	123	
4 -	Expected Age	1 = (1)(/3)+(1·5	() () () () () () () () () () () () () ($\frac{5)(3)}{5} = \frac{1}{3}$	11-25-10-11	
	Expected Spe	Cd = (1.46	201	(V)+(0)	22 = (F	160170	
	Expected Astign	notism1=	7.627	12)10	· 123172	= (HA)	
	Coperado To	* van Ji	2, 50		100	·	
		Tear-on	ml - ~	ate	lomed	entroqu= C	·775
	Lulo		Ih	Norm		extrapy= C	5.78
7 6	1 1 1 -18-(il) mid			14	and the second	- Wash	
	IVIA A ONO	re of	A	stigmati	Sm low	west entropy	-0.784
	1,	18	Nb	()		3.	
		12		12/	1/6	Myope	-6-
		et -		1/2.	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	The Secretive	
-	b) The difference	nce in	my	cala	elcet co	l entrop	40
	values and	the wall	ies	oblain	CO Tro	om Sciki	
	can be explo	ineditus	ling.	soult	ble so	2020ASIS	eich
	as roundin	o enors	क्या	Celost 1	901 ext	ors, hur	non
		J					

-	
	covers. All errors aside, computers and humans have different calculation algorithms (not necessarily, but computers are known to use more efficient algorithms which results in negligible errors in calculation.
2.	a) $P_{r}(R) = 33.33$ y. Prob(R) $P_{red} R$ $P_{rot}(Y)$ $P_{set}(Y)$ $P_{set}(Y)$ $P_{red}(Y)$
	b)P+(R) Pred(iR) Pr(Y) Pred(iY) Pr(B) @ Red(iB) /3 0.3 /3 1 /3 07 Pred(iR) = Pr(Y) V Pr(B) = 0+0.3 = 0.3 Pred(iY) = Pr(R) V Pr(B) = 0.7 + 0.3 = 11 Pred(iB) = Pr(Y) V Pr(R) = 0 + 0.7 = 0.7 (/3×0.3) + (/3×1) + (/3×0.7)
<u>چ</u>	10+ 1/3+ 7/30 2/3 : Expected error roste = 2/3
	C) PredCiR) PredCiry) PredCiry) PredCis) PredCis) 1/2 0 1/4 1 1/4 1 1 2/2 2/2
	Expected ever rate = 1/2

ne h	d) Pr(R) Pred(R) Pr(V) Pred(Y) Pr(B) Pred(B)
	12 0.3 14 1 14 0.7
S6.	
	(2x0.3)+(4x1)+(4x0.7)
- → >	3/20 + 4 + 7/40
\$	23/40
18	: Expected experience = 23/40. 11 = (1)
	= (12) + (1x2) + (0x2) = = = = (0) - (0)
3.	$O = P_{\sigma}(\chi = T) \qquad D = \{T, T, T, T, T, T, F, F, F\}$
	CONTRACTO XT=#T XF=#F
KE	P(D)=P(TATATATATATATAFAFAF) (8)-9(d)
:1	BALARD = PO (V) V POLED = 0+0-3+0-3
	109(P(D)) = 109(07(1-03)) 51 (A) 51 (
	U = 71600 + 3100 (1-0) 11-(9010)
ingel,	
	alo = 7/0+(-3/-0) (F-0)(A)+(1)(A)+(1)(A)
	$\frac{7}{3} = 0$
	O (1-0)
*	7(1-0)-30 - 0 (xact-o)
	7 7 0 1
<u> </u>	+-+6-30=1011) had (01)
) ;	7+910e-120
4	
す-	$\Phi = 7_{0}$
	The state of the s

> P(O(D)=(1)/8 >P(01D) = 1 4.0) y = mo + m, zi, + m2 2i,2 $E(\chi) = \frac{1}{2N} \sum_{i=1}^{N} (y_i - \hat{y}_i)^2$ $= \frac{1}{2N} \sum_{i=1}^{N} (y_i - \gamma_0 - \gamma_1 \chi_{i,1} - \gamma_2 \chi_{i,2}^4)^2$ $= \frac{1}{2N} \sum_{i=1}^{N} (y_i - \gamma_0 - \gamma_1 \chi_{i,1} - \gamma_2 \chi_{i,2}^4)^2$ b) no = no - Karo E(ro, m, m)
= no - Karo E(ro, m, m)
= no - Karo (2N \(\Sigma\) (y; - no - m, \(\chi\), 1 - \(\chi\) 2N \(\Sigma\) (y; - no - m, \(\chi\), 1 - \(\chi\) 2N \(\Sigma\)
= \(\chi\) o + \(\chi\) \(\Sigma\) (y; - \(\chi\) - \(\chi\), \(\chi\), 1 - \(\chi\) 2N \(\sigma\), 2 \(\chi\)
= \(\chi\) o + \(\chi\) \(\Sigma\) (y; - \(\chi\) - \(\chi\), \(\chi\), 1 - \(\chi\) 2N \(\sigma\), 2 \(\chi\) m= m, - Kam, E(mo, m, mo)
= m, - Kam, (2N Σ i=1 (y; - mo- m, xi, 1- pm, xi, 2)
= m, + N Σ i=1 (y; - mo- m, xi, 1- m, xi, 2) xi, 1 d) γ2 = γ2 - Kd = E(γ2, γ1, γ2) = γ2 - Kd (2N Σ = 1 (4; -γ2 - γ1, γ1, 1 - γ2, γ1, 2) = γ2 + ΚΣη (4; -γ2 - γ1, γ1, 1 - γ2, γ1, 2) γ2, 2