Mi Universidad

ejercicios

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Nombre del tema: Ejercicios

Parcial: tercero

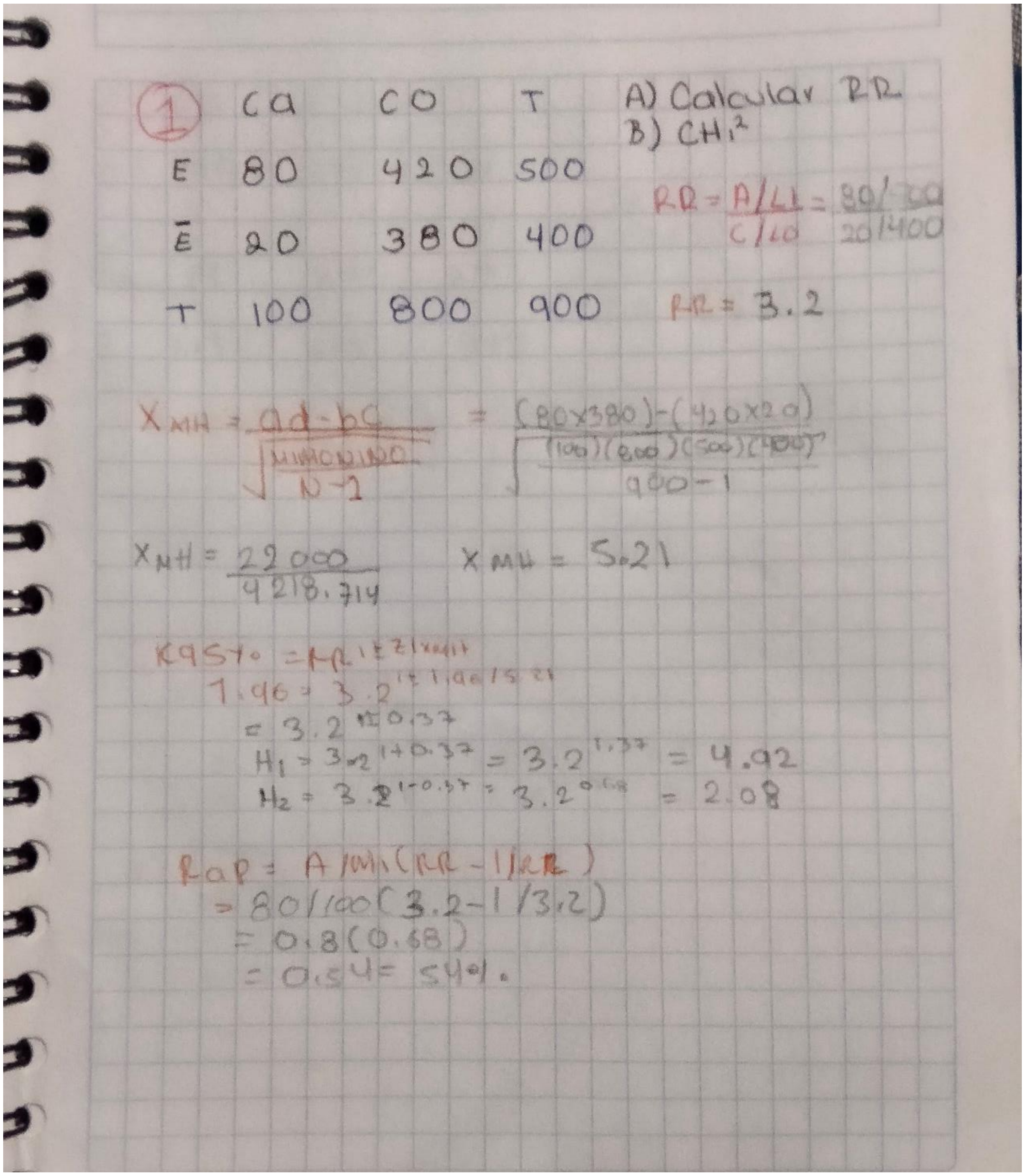
Nombre de la Materia: investigación epidemiológica avanzada

Nombre del profesor: leyber bersain

Nombre de la Licenciatura: medicina humana

Cuarto semestre

San Cristóbal de las casas, Chiapas, 29 de mayo de 2022



1

	CA	CO	T
E	80	420	500
$\bar{E}$	20	380	400
T	100	800	900

A) Calcular RR
B) CHI^2

$RR = \frac{A/L1}{C/L0} = \frac{80/500}{20/400}$

$RR = 3.2$

$X_{MH} = \frac{ad - bc}{\sqrt{\frac{M1M0N1N0}{N-1}}} = \frac{(80 \times 380) - (420 \times 20)}{\sqrt{\frac{(100)(800)(500)(400)}{900-1}}}$

$X_{MH} = \frac{22000}{4218.714}$ $X_{MH} = 5.21$

$K95\% = RR^{1 \pm Z/X_{MH}}$

$1.96 = 3.2^{1 \pm 1.96/5.21}$

$= 3.2^{1 \pm 0.37}$

$H_1 = 3.2^{1+0.37} = 3.2^{1.37} = 4.92$

$H_2 = 3.2^{1-0.37} = 3.2^{0.63} = 2.08$

$RAP = A/M1\,(RR - 1/RR)$

$= 80/100\,(3.2 - 1/3.2)$

$= 0.8\,(0.68)$

$= 0.54 = 54\%$

(2)

	Ca	Co	T
E	199	191	390
$\bar{E}$	14	24	38
T	213	215	428

$RR = \frac{A/N_1}{C/N_0} = \frac{199/390}{14/38}$

$RR = 1.381$

$$X_{MH} = \frac{ad - bc}{\sqrt{\frac{N_1 N_0 M_1 M_0}{N-1}}} = \frac{(199)(24) - (191)(14)}{\sqrt{\frac{(213)(215)(390)(38)}{428-1}}}$$

$X_{MH} = \frac{2102}{1260.721}$ $\quad X_{MH} = 1.66$

$IC\ 95\% = RR^{1 \pm Z/X_{MH}}$

$1.96 = 1.38^{1 \pm 1.96/1.66}$

$= 1.38^{1 \pm 1.18}$

$H_1 = 1.38^{1+1.18} = 1.38^{2.18} = 2.01$

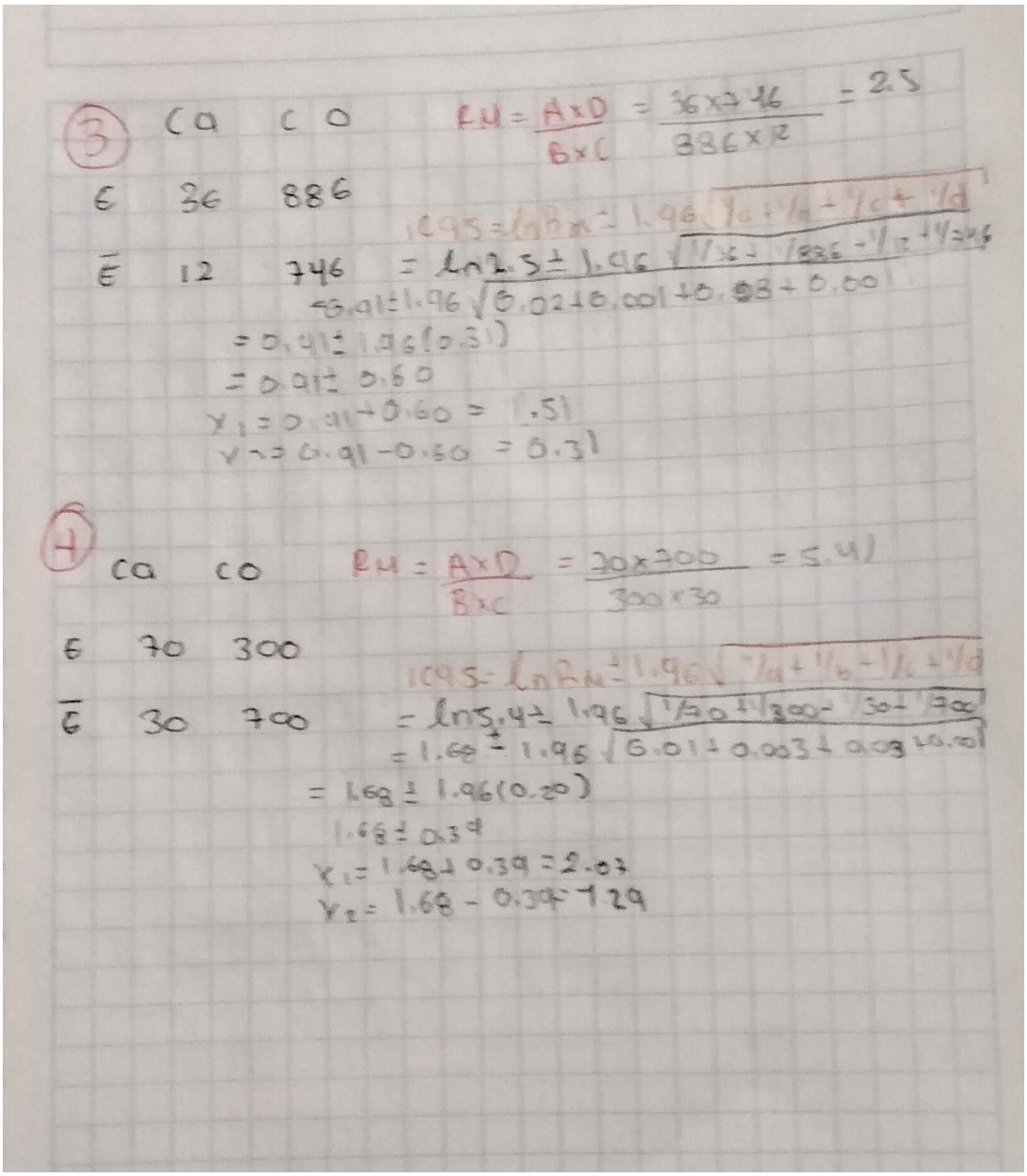
$H_2 = 1.38^{1-1.18} = 1.38^{-0.18} = 0.94$

$Rap = A/N_1 (RR - 1/RR)$

$= 199/213\,(1.38 - 1/1.38)$

$= 0.93(0.27)$

$= 0.25 = 25\%$


3
Ca CO
E 36 886
Ē 12 746
RM = AxD / BxC = 36x746 / 886x12 = 2.5
1.96 √(1/a + 1/b + 1/c + 1/d)
ln2.5 ± 1.96 √(1/36 + 1/886 + 1/12 + 1/746)
0.91 ± 1.96 √(0.02 + 0.001 + 0.08 + 0.001)
= 0.91 ± 1.96(0.31)
= 0.91 ± 0.60
Y1 = 0.91 + 0.60 = 1.51
Y2 = 0.91 - 0.60 = 0.31
4
Ca CO
E 70 300
Ē 30 700
RM = AxD / BxC = 70x700 / 300x30 = 5.41
1.96 √(1/a + 1/b + 1/c + 1/d)
ln5.4 ± 1.96 √(1/70 + 1/300 + 1/30 + 1/700)
1.68 ± 1.96 √(0.01 + 0.003 + 0.03 + 0.001)
= 1.68 ± 1.96(0.20)
1.68 ± 0.39
Y1 = 1.68 + 0.39 = 2.07
Y2 = 1.68 - 0.39 = 1.29