Nombre de alumno: Elisa Fernanda Navarro Arizmendi

Nombre del profesor: Jorge Enrique Albores

Nombre del trabajo: Ejercicios

Materia: Estadística inferencial en nutrición

Grado: 4

Grupo: LNU

Comitán de Domínguez Chiapas a 11 de Noviembre de 2021.

	E1	E2	E3	E4
$N_1 = 30$	200	195	240	215
$N_2 = 30$	220	230	195	200
$N_3 = 30$	180	210	208	225
$N_4 = 30$	230	200	215	205
	190	170	230	210

$N_1 = 20 \frac{30}{120} = 5$

$N_2 = 20 \frac{30}{120} = 5$

$N_3 = 20 \frac{30}{120} = 5$

$N_4 = 20 \frac{30}{120} = 5$

$\bar{x} = 103.875$	$\bar{x} = 105.58$	$\bar{x} = 105.3$	$\bar{x} = 109.6$
$\Sigma f_1 = 831$	$\Sigma f_1 = 1267$	$\Sigma f_1 = 1053$	$\Sigma f_1 = 1096$
$\Sigma f_1^2 = 86771$	$\Sigma f_1^2 = 134785$	$\Sigma f_1^2 = 111167$	$\Sigma f_1^2 = 121864$
$s^2 = 64.41$	$s^2 = 91.90$	$s^2 = 31.78$	$s^2 = 193.6$

$\bar{y}st = \frac{1}{120} \sum_{i=1}^{4} (30)(204) + (30)(201) + (30)(217.6) + (30)(211) = 25008$

$\bar{y}st = 208.4$

$\hat{V}(\bar{y}st) = \frac{1}{120^2} \left(\frac{5}{6}\right) [(30)^2(430 \div 5) + (30)^2(480 \div 5) + (30)^2(316.3 \div 5) + (30^2)(92.5 \div 5)$

$237.384 = x \left(\frac{5}{6}\right) \div 120^2 = 13.7375$

$\bar{y}st = \pm 2\sqrt{13.7375} = 7.4128$

	E1	E2	E3	E4
$N_1 = 24$	115	100	115	98
$N_2 = 36$	105	125	100	96
$N_3 = 30$	98	120	104	140
$N_4 = 30$	90	102	106	116
$n = 40$	103	93	108	100
$N = 120$	108	98	98	105
	112	99	97	103
	100	105	107	123
	99	104	110	115
	96	106	108	100
	103	115	107	108
	120	100	120	100

$N_1 = 40 \frac{24}{120} = 8$

$N_2 = 40 \frac{36}{120} = 12$

$N_3 = 40 \frac{30}{120} = 10$

$N_4 = 40 \frac{30}{120} = 10$

E1	E2	E3	E4
$\bar{x} = 103.875$	$\bar{x} = 105.58$	$\bar{x} = 105.3$	$\bar{x} = 109.6$
$\Sigma f_1 = 831$	$\Sigma f_1 = 1267$	$\Sigma f_1 = 1053$	$\Sigma f_1 = 1096$
$\Sigma f_1^2 = 86771$	$\Sigma f_1^2 = 134785$	$\Sigma f_1^2 = 111167$	$\Sigma f_1^2 = 121864$
$s^2 = 64.41$	$s^2 = 91.90$	$s^2 = 31.78$	$s^2 = 193.6$

$\bar{y}st = \frac{1}{120} \sum_{i=1}^{4} (24)(103.875) + (36)(105.58) + (30)(105.3) + (30)(109.6) = 12790.88$

$\div 120 = 106.174$

$\hat{V}(\bar{y}st) = \frac{1}{120^2} \left(\frac{2}{3}\right) [((24)^2(64.4 \div 8)) + ((36)^2(91.90 \div 12)) + ((30)^2(31.78 \div 10))$

$+ ((30)^2(193.6 \div 10)) = 34846.2 \times \frac{2}{3} = 23230.8 \div 120^2$

$= 1.61325$

$\bar{y}st = \pm 2\sqrt{1.61325} = 2.5402$