

**Nombre de alumno: Noel de Jesús  
López Albores**

**Nombre del profesor: Jorge Enrique  
Albores**

**Nombre del trabajo: Ejercicios de  
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**Materia: Estadística inferencial en  
nutrición**

**Grado: 4° cuatrimestre**

**Grupo: B-1**

# Estadística Inferencial en Nutrición.

Ejercicios de Plataforma. 12/Noviembre/2021

Noel de Jesús López Albores.

Actividad 1

	Estrato 1	Estrato 2	Estrato 3	Estrato 4
$N_1 = 30$	200	195	240	215
$N_2 = 30$	220	230	195	200
$N_3 = 30$	180	210	208	225
$N_4 = \frac{30}{120}$	230	200	215	205
$n = 20$	190	170	230	210

$$n_1 = \frac{30}{120} (20) = 5 \quad s^2 = \frac{209800 - \frac{(1020)^2}{5}}{4} = 430 \quad \#$$

$$n_2 = \frac{30}{120} (20) = 5 \quad s^2 = \frac{203925 - \frac{(1005)^2}{5}}{4} = 480 \quad \#$$

$$n_3 = \frac{30}{120} (20) = 5 \quad s^2 = \frac{238014 - \frac{(1088)^2}{5}}{4} = 316.5 \quad \#$$

$$n_4 = \frac{30}{120} (20) = 5 \quad s^2 = \frac{222975 - \frac{(1055)^2}{5}}{4} = 92.5 \quad \#$$

$$\textcircled{1} \bar{x} = \frac{1020}{5} = 204 \quad \#$$

$$\textcircled{2} \bar{x} = \frac{1005}{5} = 201 \quad \#$$

$$\textcircled{3} \bar{x} = \frac{1088}{5} = 217.6 \quad \#$$

$$\textcircled{4} \bar{x} = \frac{1055}{5} = 211 \quad \#$$

$$\frac{1}{120} = (30 \times 204) + (30 \times 201) + (30 \times 217.6) + (30 \times 211) = 208.4$$

$$\left(\frac{1}{120}\right) \left(\frac{5}{5}\right) \left[ (30)^2 \left(\frac{430}{5}\right) + ((30)^2 \left(\frac{480}{5}\right)) + ((30)^2 \left(\frac{316.3}{5}\right)) + ((30)^2 \left(\frac{92.5}{5}\right)) \right] = 237,384$$

$$\left(\frac{5}{\%}\right) \div (120)^2 = 13.73 \quad \#$$

$$208.4 \pm (2) \sqrt{13.73}$$

$$\underline{208.4 \pm 7.41 \quad \#}$$

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Noel de Jesus López Albores.

Actividad 2.

$N_1 = 24$   
 $N_2 = 36$   
 $N_3 = 30$   
 $N_4 = 30$   
 $n = 40$

Estroto 1	Estroto 2	Estroto 3	Estroto 4
115	100	115	98
105	125	100	96
98	120	104	140
90	102	106	116
103	93	108	100
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

$$n_1 = \frac{24}{120} (40) = 8 //$$

$$n_2 = \frac{36}{120} (40) = 12 //$$

$$n_3 = \frac{30}{120} (40) = 10 //$$

$$n_4 = \frac{30}{120} (40) = 10 //$$

$$\textcircled{1} \bar{x} = \frac{831}{8} = 103.87 //$$

$$\textcircled{2} \bar{x} = \frac{1267}{12} = 105.58 //$$

$$\textcircled{3} \bar{x} = \frac{1053}{10} = 105.3 //$$

$$s^2 = \frac{86771}{7} - \frac{(831)^2}{8} = 64.41 //$$

$$s^2 = \frac{134780}{11} - \frac{(1267)^2}{12} = 91.90 //$$

$$s^2 = \frac{111167}{9} - \frac{(1053)^2}{10} = 31.78 //$$

$$s^2 = \frac{121864}{9} - \frac{(1096)^2}{10} = 193.6 //$$

$$\frac{1}{120} = (24 \times 103.87) + (36 \times 105.58) + (30 \times 105.3) + (30 \times 109.6)$$

$$\left(\frac{1}{120}\right) \left(\frac{2}{6}\right) \left[ (24)^2 \left(\frac{64.41}{8}\right) + ((36)^2 \left(\frac{91.90}{12}\right)) + ((30)^2 \left(\frac{31.78}{10}\right)) + ((30)^2 \left(\frac{193.6}{10}\right)) \right] = 34,846.92 \quad \left(\frac{2}{6}\right) \div (120^2) =$$

$$\underline{1.61} //$$

$$106.17 \pm (2) \sqrt{1.61}$$

$$\underline{106.17 \pm 2.5} //$$