



NOMBRE de alumnos: Sheyli Velazquez
Rodriguez.

NOMBRE del PROFESOR: Joel Herrera
Ordoñez.

NOMBRE del trabajo: Actividad 1

Materia: Estadística Inferencial.

PASIÓN POR EDUCAR

GRado: 4to cuatrimestre

GRUPO: A

EJERCICIO 7

Finanzas

$$x_1 = 60$$

$$s_1 = 3$$

$$n_1 = 130$$

$$z = 95\% = 1.96$$

REC. Humanos

$$x_2 = 50$$

$$s_2 = 2$$

$$n_2 = 130$$

$$z = 95\% = 1.96$$

$$IC = (\bar{x}_1 - \bar{x}_2) \pm z \left[\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}} \right]$$

$$IC = (60 - 50) \pm 1.96 \left[\sqrt{\frac{(3)^2}{130} + \frac{(2)^2}{130}} \right]$$

$$IC = 10 \pm 1.96 \left[\sqrt{\frac{9}{130} + \frac{4}{130}} \right]$$

$$IC = 10 \pm 1.96 \left[\sqrt{0.0692 + 0.0307} \right]$$

$$IC = 10 \pm 1.96 \left[\sqrt{0.0999} \right]$$

$$IC = 10 \pm 1.96 \left[0.3160 \right]$$

$$IC = 10 \pm 0.6193$$

$$IC = 10 - 0.6193 = 9.3807$$

$$IC = 10 + 0.6193 = 10.6193$$

RESUESTA = IC = 9.3807 a 10.6193

EJERCICIO 2

Sucursal A

$$x_1 = 5000$$

$$s^2 = 600$$

$$n_1 = 40$$

$$z = 98\% = 2.33$$

Sucursal B

$$x_2 = 35000$$

$$s^2 = 700$$

$$n_2 = 40$$

$$z = 98\% = 2.33$$

$$IC = (\bar{x}_1 - \bar{x}_2) \pm z \left[\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}} \right]$$

$$IC = (5000 - 35000) \pm 2.33 \left[\sqrt{\frac{600}{40} + \frac{700}{40}} \right]$$

$$IC = 1500 \pm 2.33 \left[\sqrt{15 + 17.5} \right]$$

$$IC = 1500 \pm 2.33 \left[\sqrt{32.5} \right]$$

$$IC = 1500 \pm 2.33 \left[5.7008 \right]$$

$$IC = 1500 + 13.2828$$

$$IC = 1500 - 13.2828 = 1486.7172$$

$$IC = 1500 + 13.2828 = 1513.2828$$

$$\text{RESPUESTA} = IC = 1486.7172 \text{ A } 1513.2828$$