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**Nombre del trabajo: Muestreo  
aleatorio**

**Materia: ESTADISTICA INFERENCIAL EN  
NUTRICION**

**Grado: 4**

**Grupo: A**

Comitán de Domínguez Chiapas a **12 de octubre de 2021.**

|  |  |
|--|--|
| <p>N=18000<br/> P1=65.7%<br/> q1=<br/> B1=2%<br/> n1=<br/> p2=77%<br/> q2=<br/> B2=4%<br/> n2=</p> | <p>N=55000<br/> P1=55.8%<br/> q1=<br/> B1=2%<br/> n1=<br/> p2=62.5%<br/> q2=<br/> B2=3%<br/> n2=</p> |
| <p>N=50000<br/> P1=56.7%<br/> q1=<br/> B1=2%<br/> n1=<br/> p2=<br/> q2=<br/> B2=4%<br/> n2=</p>    | <p>N=35200<br/> P1=72.5%<br/> q1=<br/> B1=2%<br/> n1=<br/> p2=<br/> q2=<br/> B2=1%<br/> n2=</p>      |
| <p>N=58000<br/> P1=<br/> q1=<br/> B1=5%<br/> n1=<br/> p2=74%<br/> q2=<br/> B2=2%<br/> n2=</p>      | <p>N=17000<br/> P1=65.7%<br/> q1=<br/> B1=2%<br/> n1=<br/> p2=77%<br/> q2=<br/> B2=4%<br/> n2=</p>   |

Nota si no tiene valor de p entonces toma el valor de 0.5

# muestras aleatorias

Damián Gabriela Pérez Santizo

Ejercicio 1:

$$N = 18000$$

$$P_1 = 65.7\% = 0.657$$

$$q_1 = 0.343$$

$$B_1 = 2\% = 0.02$$

$$n_1 = 2003$$

$$P_2 = 77\% = 0.77$$

$$q_2 = 0.23$$

$$B_2 = 4\% = 0.04$$

$$n_2 = 433$$

$$D_1 = 0.0001$$

$$D_2 = 0.0004$$

$$n_1 = \frac{(18000)(0.657)(0.343)}{(17999)(0.0001) + (0.657)(0.343)} = \frac{456.318}{2.025251} = 2003$$

$$n_2 = \frac{(18000)(0.77)(0.23)}{(17999)(0.0004) + (0.77)(0.23)} = \frac{3187.8}{7.3767} = 433$$

Ejercicio 2:

$$N = 55000$$

$$P_1 = 55.8\% = 0.558$$

$$q_1 = 0.442$$

$$B_1 = 2\% = 0.02$$

$$n_1 = 2361$$

$$P_2 = 62.5\% = 0.625$$

$$q_2 = 0.375$$

$$B_2 = 3\% = 0.03$$

$$n_2 = 1023$$

$$D_1 = 0.0001$$

$$D_2 = 0.000225$$

$$n_1 = \frac{(55000)(0.558)(0.442)}{(54999)(0.0001) + (0.558)(0.442)} = \frac{13564.98}{5.746536} = 2361$$

$$n_2 = \frac{(55000)(0.625)(0.375)}{(54999)(0.000225) + (0.625)(0.375)} = \frac{12890.625}{12.60915} = 1023$$

Ejercicio 3:

$$N = 50000$$

$$P_1 = 56.7\% = 0.567$$

$$q_1 = 0.433$$

$$B_1 = 2\% = 0.02$$

$$n_1 = 2341$$

$$P_2 = 50\% = 0.5$$

$$q_2 = 0.5$$

$$B_2 = 4\% = 0.04$$

$$n_2 = 618$$

$$D_1 = 0.0001$$

$$D_2 = 0.0004$$

$$n_1 = \frac{(50000)(0.567)(0.433)}{(49999)(0.0001) + (0.567)(0.433)} = \frac{12285.55}{5.245911} = 2341$$

$$n_2 = \frac{(50000)(0.5)(0.5)}{(49999)(0.0004) + (0.5)(0.5)} = \frac{12500}{20.2496} = 618$$

Ejercicio 4:

$$N = 35200$$

$$P_1 = 72.5\% = 0.725$$

$$q_1 = 0.275$$

$$B_1 = 2\% = 0.02$$

$$n_1 = 1887$$

$$P_2 = 50\% = 0.5$$

$$q_2 = 0.5$$

$$B_2 = 1\% = 0.01$$

$$n_2 = 7788$$

$$D_1 = 0.0001$$

$$D_2 = 0.000025$$

$$n_1 = \frac{(35200)(0.725)(0.275)}{(35199)(0.0001) + (0.725)(0.275)} = \frac{7018}{3.719275} = 1887$$

$$n_2 = \frac{(35200)(0.5)(0.5)}{(35199)(0.000025) + (0.5)(0.5)} = \frac{8800}{1.129975} = 7788$$

Ejercicio 5:

$$N = 58000$$

$$P_1 = 50\% = 0.5$$

$$q_1 = 0.5$$

$$B_1 = 5\% = 0.05$$

$$n_1 = 398$$

$$P_2 = 74\% = 0.74$$

$$q_2 = 0.26$$

$$B_2 = 2\% = 0.02$$

$$n_2 = 187$$

$$D_1 = 0.000625$$

$$D_2 = 0.0001$$

$$n_1 = \frac{(58000)(0.5)(0.5)}{(57999)(0.000625) + (0.5)(0.5)} = \frac{14500}{36.499375} = 398$$

$$n_2 = \frac{(58000)(0.74)(0.26)}{(57999)(0.0001) + (0.74)(0.26)} = \frac{1115.92}{5.9923} = 186 = 187$$

Ejercicio 3:

$$N = 17000$$

$$P_1 = 65.7\% = 0.657$$

$$q_1 = 0.343$$

$$B_1 = 2\% = 0.02$$

$$n_1 = 16889$$

$$P_2 = 77\% = 0.77$$

$$q_2 = 0.23$$

$$B_2 = 4\% = 0.04$$

$$n_2 = 432$$

$$D_1 = 0.0001$$

$$D_2 = 0.0004$$

$$n_1 = \frac{(17000)(0.657)(0.343)}{(16999)(0.0001) + (0.657)(0.343)} = \frac{3830.967}{2.268251} = 1688.9 = 1689$$

$$n_2 = \frac{(17000)(0.77)(0.23)}{(16999)(0.0004) + (0.77)(0.23)} = \frac{3010.7}{6.9767} = 432$$