



Nombre de la alumna: Sarina López González.

Nombre del profesor: Jorge Enrique Albores.

Nombre del trabajo: Muestreo aleatorio.

Materia: Estadística Inferencial en nutrición.

Grado: 4° Cuatrimestre

1

$$N = 18000$$

$$P_1 = 65.7\% = 0.657$$

$$q_1 = 1 - 0.657 = 0.343$$

$$B_1 = 2\% = 0.02$$

$$n_1 = ?$$

$$D = \frac{(0.02)^2}{4} = 0.0001$$

$$n = \frac{(18000)(0.657)(0.343)}{(17,999)(0.0001) + (0.657)(0.343)}$$

$$n = 2,003$$

$$P_2 = 77\% = 0.77$$

$$q_2 = 1 - 0.77 = 0.23$$

$$B_2 = 4\% = 0.04$$

$$n_2 = ?$$

$$\frac{(0.04)^2}{4} = 0.0004$$

$$n = \frac{(18000)(0.77)(0.23)}{(17,999)(0.0004) + (0.77)(0.23)}$$

$$n = 433$$

2

$$N = 55000$$

$$P_1 = 55.8\% = 0.558$$

$$q_1 = 1 - 0.558 = 0.442$$

$$B_1 = 2\% = 0.02$$

$$n_1 = ?$$

$$D = \frac{(0.02)^2}{4} = 0.0001$$

$$n = \frac{(55000)(0.558)(0.442)}{(54,999)(0.0001) + (0.558)(0.442)}$$

$$n = 2361$$

$$P_2 = 62.5\% = 0.625$$

$$q_2 = 1 - 0.625 = 0.375$$

$$B_2 = 3\% = 0.03$$

$$n_2 = ?$$

$$\frac{(0.03)^2}{4} = 0.000225$$

$$n = \frac{(55000)(0.625)(0.375)}{(54,999)(0.000225) + (0.625)(0.375)}$$

$$n = 1,023$$

3

$$D = \frac{(0.02)^2}{4} = 0.0001$$

$$N = 50000$$

$$P_1 = 56.7\% = 0.567$$

$$q_1 = 1 - 0.567 = 0.433$$

$$B_1 = 2\% = 0.02$$

$n_1 = ?$

$$n = \frac{(50000)(0.567)(0.433)}{(49,999)(0.0001) + (0.567)(0.433)}$$

$$n = \underline{2,341}$$

$$P_2 = 50\% = 0.5$$

$$q_2 = 1 - 0.5 = 0.5$$

$$B_2 = 4\% = 0.04$$

$n_2 = ?$

$$D = \frac{(0.04)^2}{4} = 0.0004$$

$$n = \frac{(50000)(0.5)(0.5)}{(49,999)(0.0004) + (0.5)(0.5)}$$

$$n = \underline{678}$$

4

$$N = 35200$$

$$P_1 = 72.5\% = 0.725$$

$$q_1 = 1 - 0.725 = 0.275$$

$$B_1 = 2\% = 0.02$$

$n_1 = ?$

$$D = \frac{(0.02)^2}{4} = 0.0001$$

$$n = \frac{(35,200)(0.725)(0.275)}{(35,199)(0.0001) + (0.725)(0.275)}$$

$$n = \underline{1,887}$$

$$P_2 = 50\% = 0.5$$

$$q_2 = 1 - 0.5 = 0.5$$

$$B_2 = 1\% = 0.01$$

$n_2 = ?$

$$D = \frac{(0.01)^2}{4} = 0.000025$$

$$n = \frac{(35200)(0.5)(0.5)}{(35,199)(0.000025) + (0.5)(0.5)}$$

$$n = \underline{7,788}$$

5

$$N = 58000$$

$$P_1 = 50\% = 0.5$$

$$q_1 = 1 - 0.5 = 0.5$$

$$B_1 = 5\% = 0.05$$

 $n_1 = ?$

$$D = \frac{(0.05)^2}{4} = 0.000625$$

$$n = \frac{(58000)(0.5)(0.5)}{(57.999)(0.000625) + (0.5)(0.5)}$$

$$n = \underline{398}$$

$$P_2 = 74\% = 0.74$$

$$q_2 = 1 - 0.74 = 0.26$$

$$B_2 = 2\% = 0.02$$

 $n_2 = ?$

$$D = \frac{(0.02)^2}{4} = 0.0001$$

$$n = \frac{(58000)(0.74)(0.26)}{(57.999)(0.0001) + (0.74)(0.26)}$$

$$n = \underline{1863}$$

6

$$N = 17000$$

$$P_1 = 65.7\% = 0.657$$

$$q_1 = 1 - 0.657 = 0.343$$

$$B_1 = 2\% = 0.02$$

 $n_1 = ?$

$$D = \frac{(0.02)^2}{4} = 0.0001$$

$$n = \frac{(17000)(0.657)(0.343)}{(16.999)(0.0001) + (0.657)(0.343)}$$

$$n = \underline{1990}$$

$$P_2 = 77\% = 0.77$$

$$q_2 = 1 - 0.77 = 0.23$$

$$B_2 = 4\% = 0.04$$

 $n_2 = ?$

$$D = \frac{(0.04)^2}{4} = 0.0004$$

$$n = \frac{(17000)(0.77)(0.23)}{(16.999)(0.0004) + (0.77)(0.23)}$$

$$n = \underline{432}$$