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Nombre del profesor: Jorge enrique albores Aguilar.

Nombre del trabajo: “muestreo aleatorio”

Materia: “estadística inferencial en nutrición”

Grado: “4°to cuatrimestre”

Grupo: “A”

Comitán de Domínguez Chiapas a 15 de octubre de 2021.

Ejercicios

①

$N = 1800$
$P_1 = 65.7\% = 0.657$
$q_1 = 1 - 657 = 0.343$
$B_1 = 2\% = 0.02$
$n_1 = 2003$

$D = \frac{(.02)^2}{4} = 0.0001$

$n = \frac{(1800)(0.657)(0.343)}{}$

$n = 2003$

$P_2 = 77\%$
$q_2 = 1 - 0.77 = 0.23$
$B_2 = 4\% = 0.04$
$n_2 =$

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

$n = \frac{(1800)(0.77)(0.23)}{(1799)(0.0004) + (0.77)(0.23}$ =

$n = 433$

②

$N = 55000$
$P_1 = 55\% = 0.55$
$q_1 = 1 - .55 = 0.45$
$B_1 = 2\% = 0.002$
$n_1 =$

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

$n = \frac{(55000)(.55)(.492)}{(54991)(0.0001) + (0.55)(0.492)}$

$n = 5341$

$N = 55000$
$P_2 = 62.5\%$
$q_2 = 1 - 0.625 = 0.375$
$B_2 = 3\% = 0.03$
$n_2 =$

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

$n = \frac{(55000)(0.625)(0.375}{(54999)(.000225) + (0.625)(.37)}$

$n = 7023$

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(3)

$N = 50000$

$p_1 = 56.7\%$

$q_1 =$

$B_1 = 2\%$

$n_1 =$

$$D = \frac{(0.002)^2}{4} = 0.0007$$

$$n = \frac{(50000)(0.433)(0.567)}{(49999)[0.0007] + (0.433)(0.567)}$$

$n = 2341$

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

$$n = \frac{(50000)(0.5)(0.5)}{(49999)(0.0004) + (0.5)(0.5)}$$

$n = 678$

(4)

$N = 35200$

$p_1 = 72.5\% = 0.725$

$q_1 = 1 - .725 = 0.275$

$B_1 = 2\% = 0.02$

$n_1 =$

$$D = \frac{(0.02)^2}{4} = 0.0007$$

$$n = \frac{(35200)(0.725)(0.275)}{(35199)(0.0007) + (.725)(.275)}$$

$n = 1887$

$p_2 = 50\% = 0.5$

$q_2 = 1 - 0.5 = 0.5$

$B_2 = 1\% = 0.01$

$n =$

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

$$n = \frac{(35200)(0.5)(0.5)}{(35199)(.000025) + (.5)(.5)}$$

$n = 7788$

Lardes Jazmin Perez Perez

⑤

$N = 58000$

$P_i = 50\% = 0.5$

$q_i = 1 - 0.5 = 0.5$

$B_i = 5\% = 0.05$

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

$$n = \frac{(58000)(0.5)(0.5)}{(57999)(.000625) + (.05)(.5)}$$

$n = 398$

$$D = \frac{(0.02)^2}{4} = 0.0007$$

$$n = \frac{(58000)(0.74)(0.26)}{(57999)(0.0007) + (.74)(.26)}$$

$n = 7863$