

$$N = 2000$$

$$p_1 = 55\% = 0.55$$

$$q_1 = 1 - p_1 = 1 - 0.55 = 0.45$$

$$B_1 = 3\% = 0.03$$

$$n_1 =$$

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

$$n = Npq$$

$$\frac{(N-1)D + pq}{}$$

$$n = \frac{(2000)(0.55)(0.45)}{(1.999)(0.000225) + (0.55 \times 0.45)}$$

$$2000 \times 0.55 \times 0.45 = \frac{((1999 \times 0.000225) + (0.55 \times 0.45))}{}$$
$$= 709.90$$

$$p_2 = 62\% = 0.62$$

$$q_2 = 1 - p_2 = 1 - 0.62 = 0.38$$

$$B_2 = 4\% = 0.04$$

$$n_2 =$$

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

$$N = Npq$$

$$n = (2000)(0.62)(0.38)$$

$$\frac{(N-1)D + pq}{}$$

$$2000 \times 0.62 \times 0.38 = \frac{((1999 \times 0.0004) + (0.62 \times 0.38))}{}$$

$$= 455.17$$

$$N = 5000$$

$$p = 50\% = 0.5$$

$$q = 1 - p = 1 - 0.5 = 0.5$$

$$B = 5\% = 0.05$$

$n =$

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

$$n = N D q$$

$$(N - 1) D + p q$$

$$n = \frac{(5000) (0.5) (0.5)}{(4999) (0.000625) + (0.5 \times 0.5)}$$

$$(4999) (0.000625) + (0.5 \times 0.5)$$

$$5000 \times 0.5 \times 0.5 = \frac{2}{1} \left[(4999 \times 0.000625) + (0.5 \times 0.5) \right]$$

$$= 370.43$$

~~066 october 2022~~
X 1500