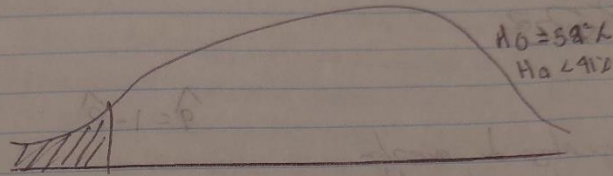


$$\begin{aligned}
 p &= 59\% \\
 \hat{p} &= 52\% \\
 \hat{q} &= 48\% \\
 n &= 60 \\
 \alpha &= .02
 \end{aligned}$$



$$z = \frac{\hat{p} - p}{\sqrt{\frac{pq}{n}}} = \frac{-0.07}{\sqrt{\frac{(0.52)(0.48)}{60}}} = \frac{-0.07}{\sqrt{\frac{0.2496}{60}}} = \frac{-0.07}{\sqrt{0.00416}}$$

$$= \frac{-0.07}{0.0645} = -1.08527 \quad \text{se acepta}$$

↓

$$= 0.64498$$

~~U = U + Z~~

$$\hat{q} = 1 - \hat{p}$$

\hat{p} = porcentaje de muestra

p = porcentaje de población

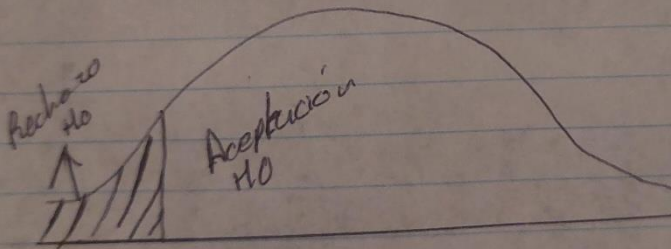
q = resto de \hat{p} para llegar a 1 (porcentaje de rechazo)

$$z = \frac{\hat{p} - p}{\sqrt{\frac{pq}{n}}}$$

problema 1

$$H_0 \geq 0.62 = 62\%$$

$$H_a < 0.58 = 58\%$$



$$z = \frac{0.57 - 0.62}{\sqrt{\frac{(0.57)(0.43)}{65}}}$$

$$= 0.8143$$

$$z = \frac{-0.05}{\sqrt{\frac{0.2951}{65}}}$$

Se acepta

$$= \frac{-0.05}{\sqrt{0.00377}} = \frac{-0.05}{0.06614}$$