A Cab Company believes that the Percentage of residents in city ABC that owns a vechile is 60% or less. A Sales manager disagrees with this. He conducts a hypothesis testing surveying 250 residents and found that 170 responded yes. to owing a vechile.

a) state the Null & Alternative hypothesis
b) At 10% significance level, is there enough evidence to support?

. M : M_0 = City ABC residents owns a vechile is 60%.
Hi : M_0 = city ABC residents owns a vechile is less than 60%.
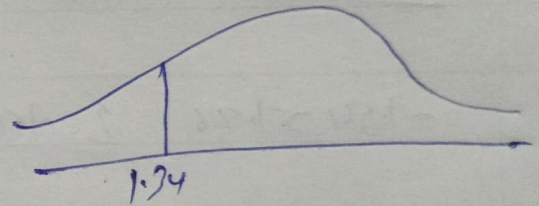
$P = \dfrac{170}{250} = 0.68$ $P_0 = 0.6$ $\angle$ at 10%.

~~Pegstes~~ $q_0 = 1 - P_0 = 1 - 0.6 = 0.4$ $\angle = 1.34$

$Z_{test} = \dfrac{0.68 - 0.6}{\sqrt{\dfrac{(0.6)(0.4)}{250}}} = \dfrac{0.08}{\sqrt{\dfrac{0.4}{250}}} = 2$

1.34

Conclusion & 2 > 1.34 { ACCEPT Null hypothesis }

P-value &

Pvalue = 1 - 0.9772

$\boxed{= 0.0228}$

0.9772