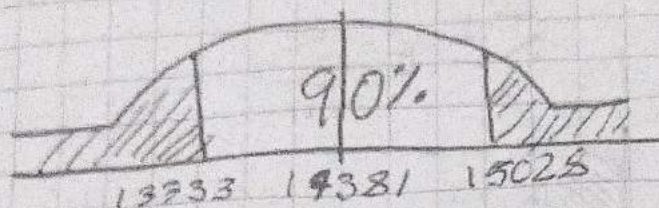


$$1) \bar{x} \pm z \frac{s}{\sqrt{n}}$$

$$n=25 \quad \bar{x}=14381$$

$$s=1892$$



Concluir  
 $\bar{x}=15.000$

Restante 10%  
 $=0,1$

$$z=1,711$$

$$\alpha = \frac{0,1}{2} = 0,05$$

$$14381 \pm 1,711 \frac{1892}{\sqrt{5}}$$

$$14381 \pm 647.4424$$

$$14381 + 647.4424 = 15028.4424$$

$$14381 - 647.4424 = 13733.5576$$

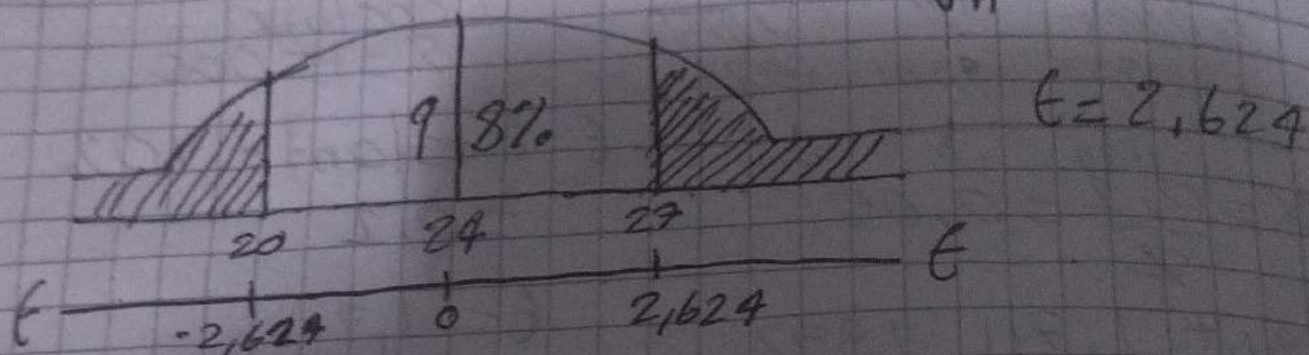
Se puede Concluir que  $\bar{x}=15.000$  se encuentra en el 90%.

$$[13,733, 15028]$$



2)  $n=15$      $\bar{x}=24$      $S=5$   
 98%.

$$\bar{x} \pm t \frac{S}{\sqrt{n}}$$



$$24 \pm 2,624 \frac{5}{\sqrt{15}}$$

$$24 + 3,387 = 27,387$$

$$24 - 3,387 = 20,613$$

$$[20,613, 27,387]$$



3)

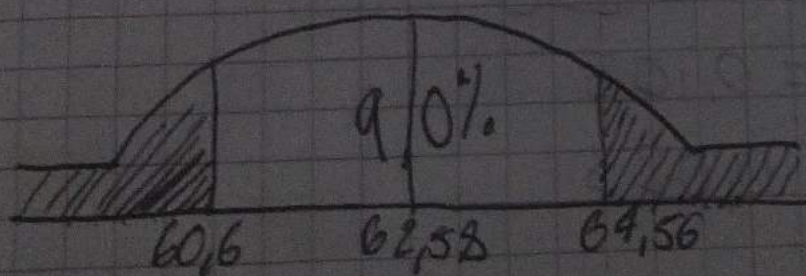
$$\bar{x} = \frac{751}{12} = 62,58$$

$$(64)^2 + (66)^2 + (64)^2 + (66)^2 + (59)^2 + (62)^2 + (67)^2 + (61)^2 + (64)^2 + (58)^2 + (54)^2 + (66)^2 = 47171$$

$$s^2 = \frac{47171 - 12(62,58)^2}{12} = 14,66$$

$$s = \sqrt{14,66} = 3,82$$

$$t = 1,796$$



$$-1,796 \quad 0 \quad 1,796$$

$$62,58 \pm 1,796 \cdot \frac{3,82}{\sqrt{12}}$$

$$62,58 \pm 1,98$$

$$62,58 + 1,98 = 64,56$$

$$62,58 - 1,98 = 60,6$$

$$[60,6, 64,56]$$

marfik



$$4) N=220$$

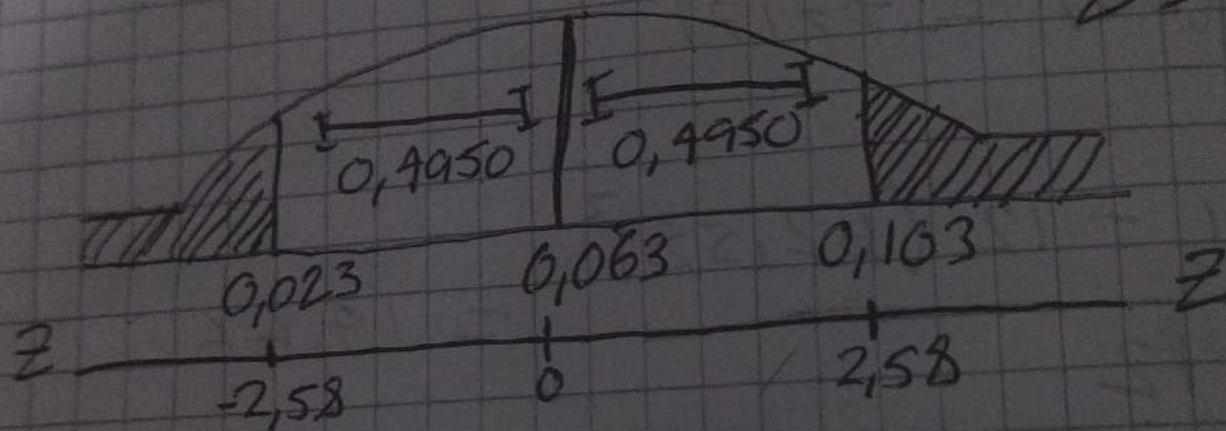
99%

$p=14$  reprobaron

$$\frac{14}{220} = 0,063 = p$$

$$1-p = 0,937 = q$$

$$Z = 2,58$$



$$0,063 \pm 2,58 \sqrt{\frac{0,063 \cdot 0,937}{220}}$$

$$0,063 + 0,04 = 0,103$$

$$0,063 - 0,04 = 0,023$$

$$[0,023, 0,103]$$



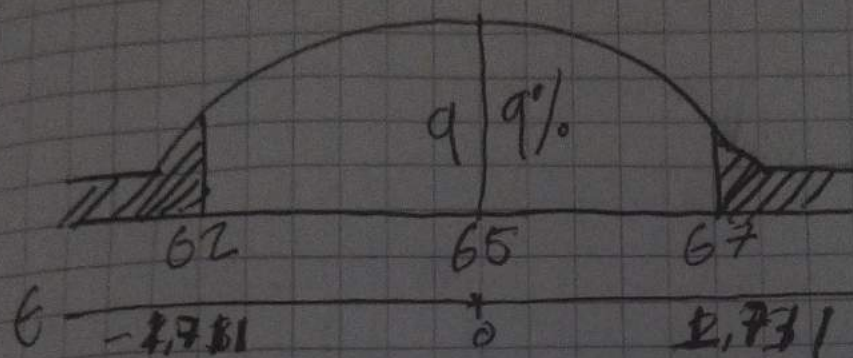
$$5) n=25$$

$$\bar{x}=65$$

$$s=6,25$$

$$\alpha = \frac{0,1}{2}$$

$$\alpha = 0,05$$



$$z = 1,711$$

$$65 \pm 1,711 \frac{6,25}{\sqrt{25}}$$

$$65 + 2,13 = 67,13$$

$$65 - 2,13 = 62,87$$

$$[62,87, 67,13]$$

tamaño 95% buscando n con  
error del 1%

$$n = \left( \frac{t \cdot s}{e} \right)^2 = \frac{2,064 \cdot 6,25}{0,01}$$

$$= 1290$$