confidence interval:-

100 Employees → HR → sample data
500 data. Data analyst.

300 x L  200 L

95%

How many x L & L T-shirts you need to order

Ans: T-test

Degree of freedom = n-1 = 25-1 = 24

$$\bar{x} \pm t_{\alpha/2}\left(\frac{s}{\sqrt{n}}\right)$$

$\bar{x} = 500$  C.I = 95%.  $\alpha = 0.05$

$s = 100$

$t_{\frac{\alpha}{2}} = t_{\frac{0.05}{2}}$

Lower fence $= 500 - 2.064 \times \left(\frac{100}{\sqrt{25}}\right)$  $t_{0.025}$

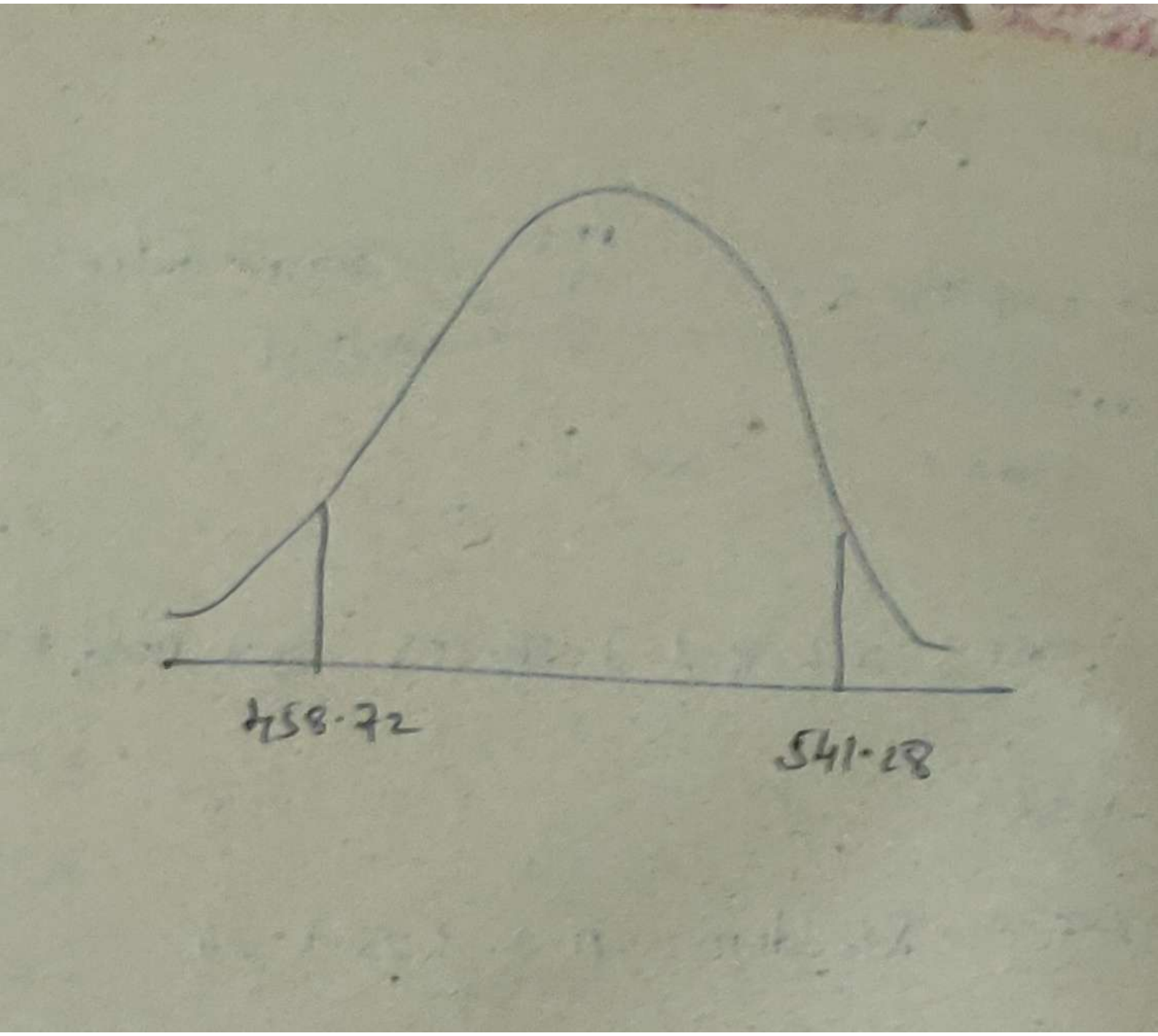
$= 500 - 2.064 \times \frac{100}{5}$

$= 458.72.$

Higher fence $= 500 + 2.064 \times \left(\frac{100}{\sqrt{25}}\right)$

$= 500 + 2.064 \times \frac{100}{5}$

$= 541.28$


458·72
541·28