Assignment

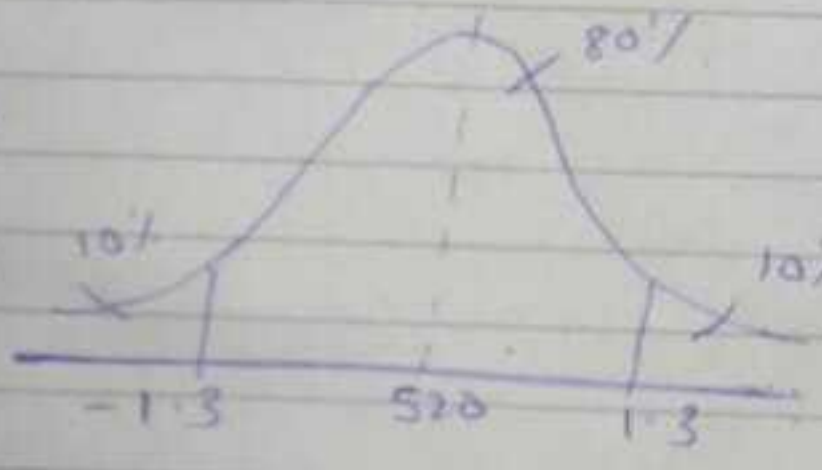
Qus In the quant test of CAT Exam, the population Standard deviation is known to be 100. A sample of 25 test taker has a mean of 520. Construct a 80% C.I about mean?

Ans

$\sigma = 100 \quad n = 25 \quad \bar{x} = 520$

$Z_{\alpha/2} = Z_{\frac{.20}{2}} = Z_{.1} = (1.3)$

$1 - .1 = .9$



lower Fence $= \bar{x} - Z_{\alpha/2} \frac{\sigma}{\sqrt{n}}$

$= 520 - 1.3 \times \frac{100}{\sqrt{25}} 20$

$= 494$

Higher Fence $= \bar{x} + Z_{\alpha/2} \frac{\sigma}{\sqrt{n}}$

$= 520 + 1.3 \times 20$

$= 546$