Assignment ans:

Pop S.D $= 100 = \sigma$

$n = 25$

$\bar{x} = 520$

CI $= 80\%$

$\alpha = 0.2$

$\alpha/2 = 0.1$

$Z\alpha/2 = ?$

$1 - 0.1 = 0.9$

area under curve $= 0.9$

Z of 0.9 from table

$\underset{\downarrow}{\parallel}$

$+1.2 \quad ap - 1.2$

lower fence $= 520 - 1.2 \times \dfrac{100}{\sqrt{25}}$

$= 496$

higher fence $= 520 + 1.2 \times \dfrac{100}{\sqrt{25}}$

$= 544$