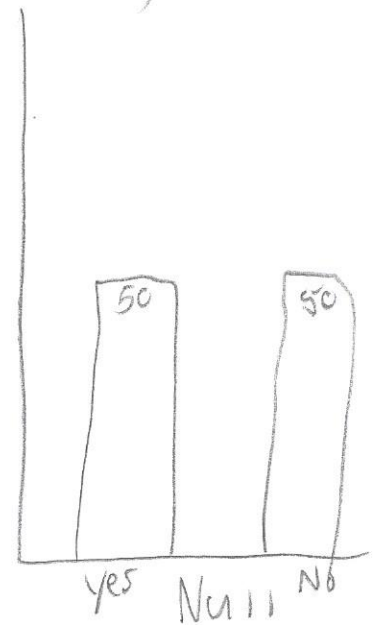
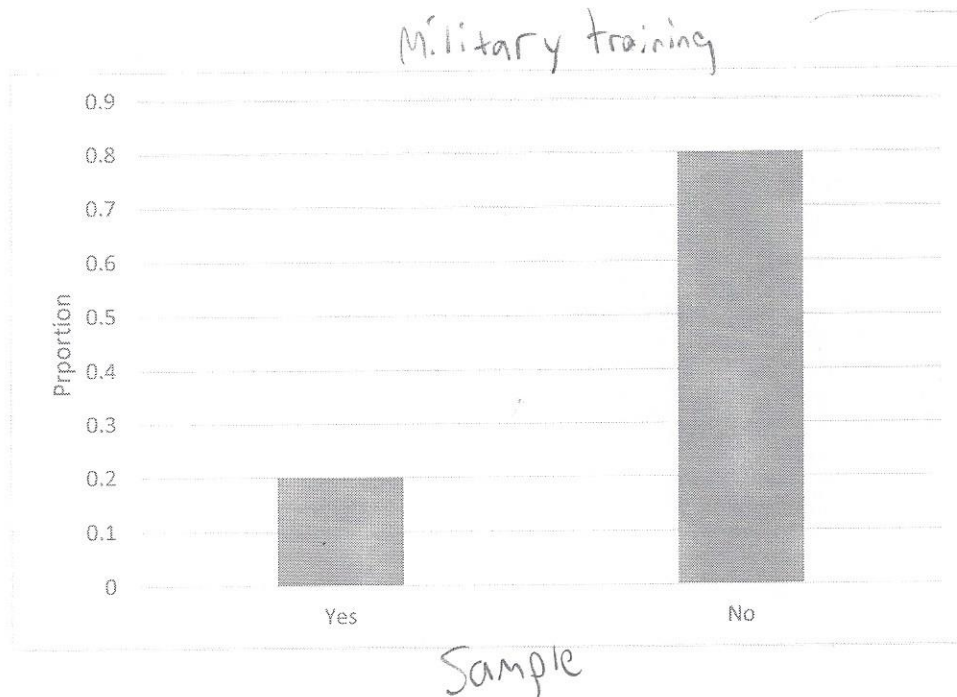




$$n = 100$$

$$x = 20$$

$$\hat{p} = \frac{x}{n} = \frac{20}{100} = 0.20$$

$\hat{p}$ is the proportion of those who were in military

Central limit theorem

10

$$\text{so } np(1-p) = 100 * 0.2 * 0.8 \geq$$

$$16 \geq 10$$

0.04

$$\text{Mean} = p = 0.2$$

$$\text{Sd} = \sqrt{\frac{p(1-p)}{n}} = \sqrt{\frac{0.20(1-0.20)}{100}} =$$

$$CI = \hat{p} \pm Z \times \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$$

Confidence Interval

$$95\%CI = 0.20 \pm 1.96 \times \sqrt{\frac{0.2(0.8)}{100}} = 0.2 \pm 0.0784$$

$$\text{Lower bound} = 0.20 - 0.0784 = 0.1216$$