

a.

$$n = 50$$

$$\bar{x} = 32$$

$$\sigma = 6$$

$$\bar{x} \pm z \left(\frac{\sigma}{\sqrt{n}} \right) \quad 95\% = z \cdot 1.96$$

$$32 \pm 1.96 \left(\frac{6}{\sqrt{50}} \right)^{0.25}$$

$$\Rightarrow 32 \pm 1.66$$

$$\Rightarrow 30.34 \sim 33.66$$

$$90\% = 1.645$$

$$94\% = 2.575$$

b.

$$z \left(\frac{\sigma}{\sqrt{n}} \right) = 1$$

$$1.96 \left(\frac{6}{\sqrt{n}} \right) = 1$$

$$\sqrt{n} = 1.96 \times 6$$

$$\sqrt{n} = 11.76$$

$$n = 138.2976$$

$$\hat{=} 139$$