$$n = 325$$

$$df = 325 - 1 = 324$$

$$\overline{X} = 75.3$$

$$s = 12.8$$

$$\alpha = 0.2\%$$

$$\alpha/2 = 0.1\% = 0.001$$

$$t_{\alpha/2, df} = t_{0.001, 324} = 3.1161$$

$$C.I. = (\overline{X} \pm t_{\alpha/2} \frac{s}{\sqrt{n}})$$

$$= (75.3 \pm 3.1161 \cdot \frac{12.8}{\sqrt{325}})$$

$$= (75.3 \pm 2.2125)$$

$$= (73.0875, 77.5125)$$

$$C.I. \approx (73.09, 77.51)$$

$$\alpha = 5\%$$

$$\alpha/2 = 2.5\%$$

$$Z_{\alpha/2} = 1.96$$

$$= 0.025$$

$$d = 3\%$$

$$d = 0.03$$

$$n \geq \frac{Z_{\alpha/2}^2}{4d^2}$$

$$= \frac{(1.96)^2}{4(0.03)^2}$$

$$n \geq 1067.1$$

$$n = 1068$$