① 6.7

$1 - \alpha = 95\%$, $\dfrac{\alpha}{2} = 0.0025$, $Z_{\frac{\alpha}{2}} = Z_{0.0025} = 1.96$

$\bar{x} \pm Z_{\frac{\alpha}{2}} \dfrac{S}{\sqrt{n}} = 16.33 \pm 1.96 \dfrac{4.29}{\sqrt{36}} = 16.33 \pm 1.4$

$\bar{x} = 16.33$

$S = 4.29$

95% $(14.93, 17.73)$

② $1 - \alpha = 90\%$, $\dfrac{\alpha}{2} = 0.05$, $Z_{\frac{\alpha}{2}} = Z_{0.05} = 1.645$

$\bar{x} \pm Z_{\frac{\alpha}{2}} \dfrac{S}{\sqrt{n}} = 16.33 \pm 1.645 \dfrac{4.29}{\sqrt{36}} = 16.33 \pm 1.18$

90% $(15.15, 17.51)$