

Biometry - Clex 9 - Solutions

$$\textcircled{1} \quad 28.1 \pm (1.96) \frac{5.1}{\sqrt{82}}$$

$27.0 < \mu < 29.2$ with 95% confidence.

CLT guarantees that the distribution of \bar{X} is well approximated by a normal distribution at $n=82$.

$$\textcircled{2} \quad \text{Urban coy wolves: } 18.2 \pm 2.33 \frac{3.0}{\sqrt{44}}$$

$17.1 < \mu_u < 19.3$ kg with 98% confidence.

$$\text{Non-urban coy wolves: } 16.5 \pm 2.33 \frac{2.8}{\sqrt{67}}$$

$15.7 < \mu_n < 17.3$ kg with 98% confidence.

since the two CI overlap we cannot claim that the urban coyotes are heavier with 98% confidence.