

Vocabulary: Estimating Population Size



Vocabulary

- Percent error – the difference between an estimated value and the true value, expressed as a percent.

- Use the following equation to calculate the percent error:

$$\text{percent error} = \frac{\text{estimated value} - \text{actual value}}{\text{actual value}} \cdot 100$$

- For example, if the actual value is 200 and the estimated value is 175, then the percent error is calculated as follows:

$$\begin{aligned}\text{percent error} &= \frac{175 - 200}{200} \cdot 100 \\ &= \frac{-25}{200} \cdot 100 \\ &= -12.5\%\end{aligned}$$

- A negative percent error means the estimated value is less than the actual value.
 - A positive percent error means the estimated value is greater than the actual value.
- Population – an entire group of objects or individuals.
 - Sample – a part of a population selected to represent the population.