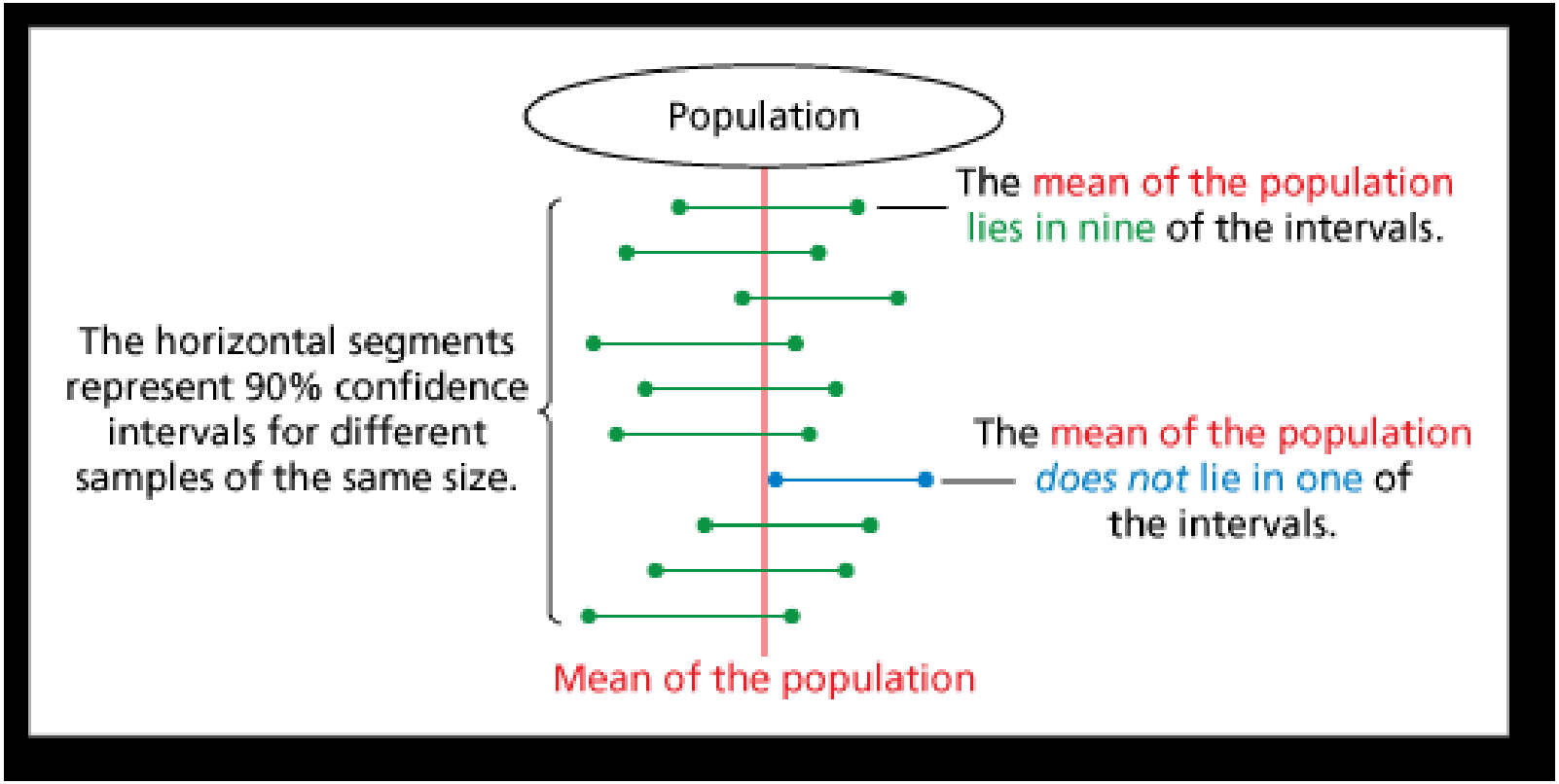
Interpreting the Confidence Interval from Previous Example

* "With 90% confidence, the mean is in the interval (22.3 , 23.5)
* This means: When a _____ of samples is collected and a _____ _____ is created for each sample, _____ of these _____ will contain _____.


Population
The mean of the population lies in nine of the intervals.
The horizontal segments represent 90% confidence intervals for different samples of the same size.
The mean of the population does not lie in one of the intervals.
Mean of the population

Sample Size

* To determine the _____ _____ needed to estimate the _____ with a _____ and a _____:

EX:

* An economics researcher wants to estimate the mean number of hours worked by all grocery store employees in a county. How many employees must be included in the sample to be 95% confident that the sample mean is within 1.5 hours of the population mean? Assume the standard deviation is 7.9 hours.