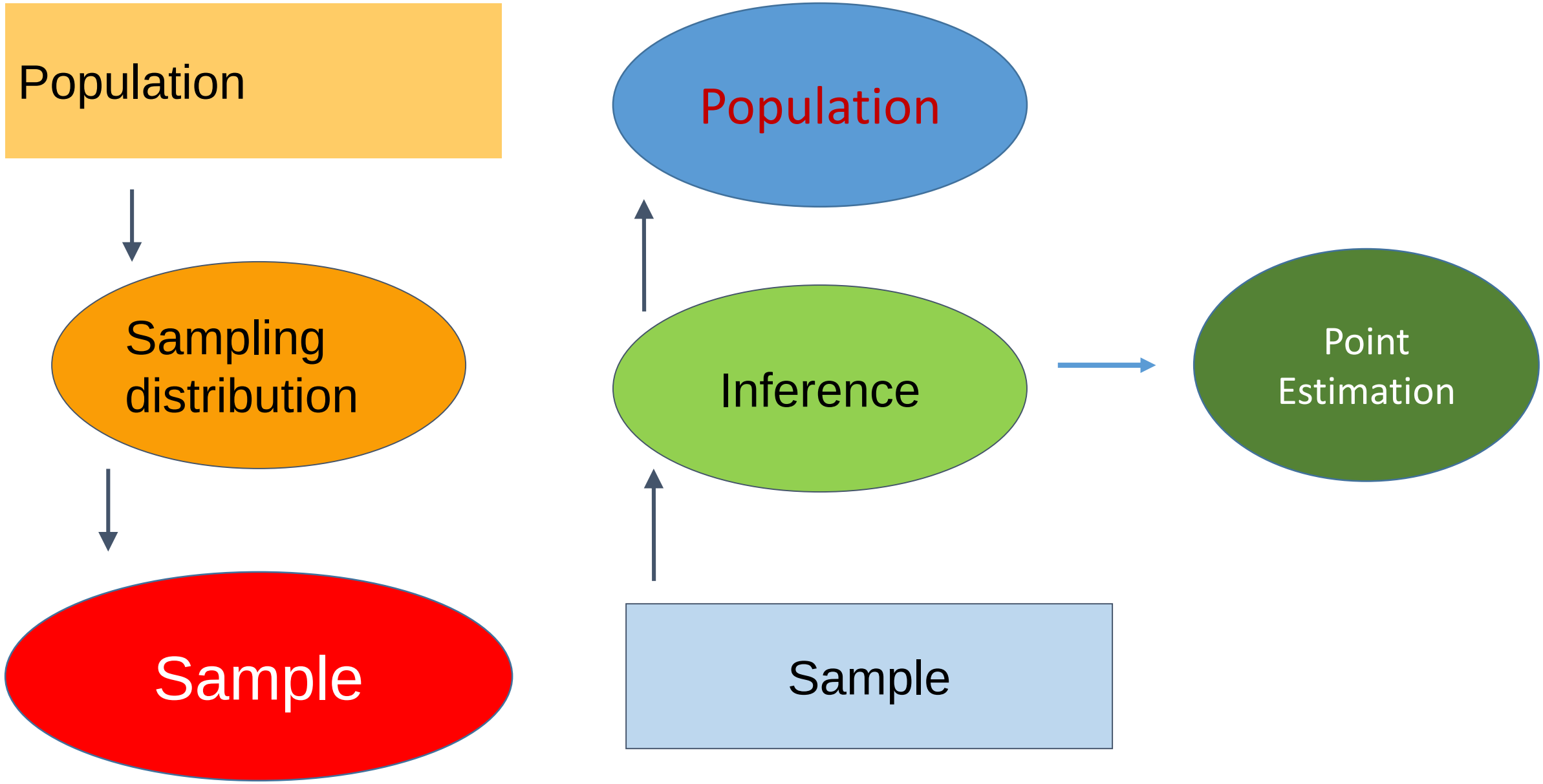
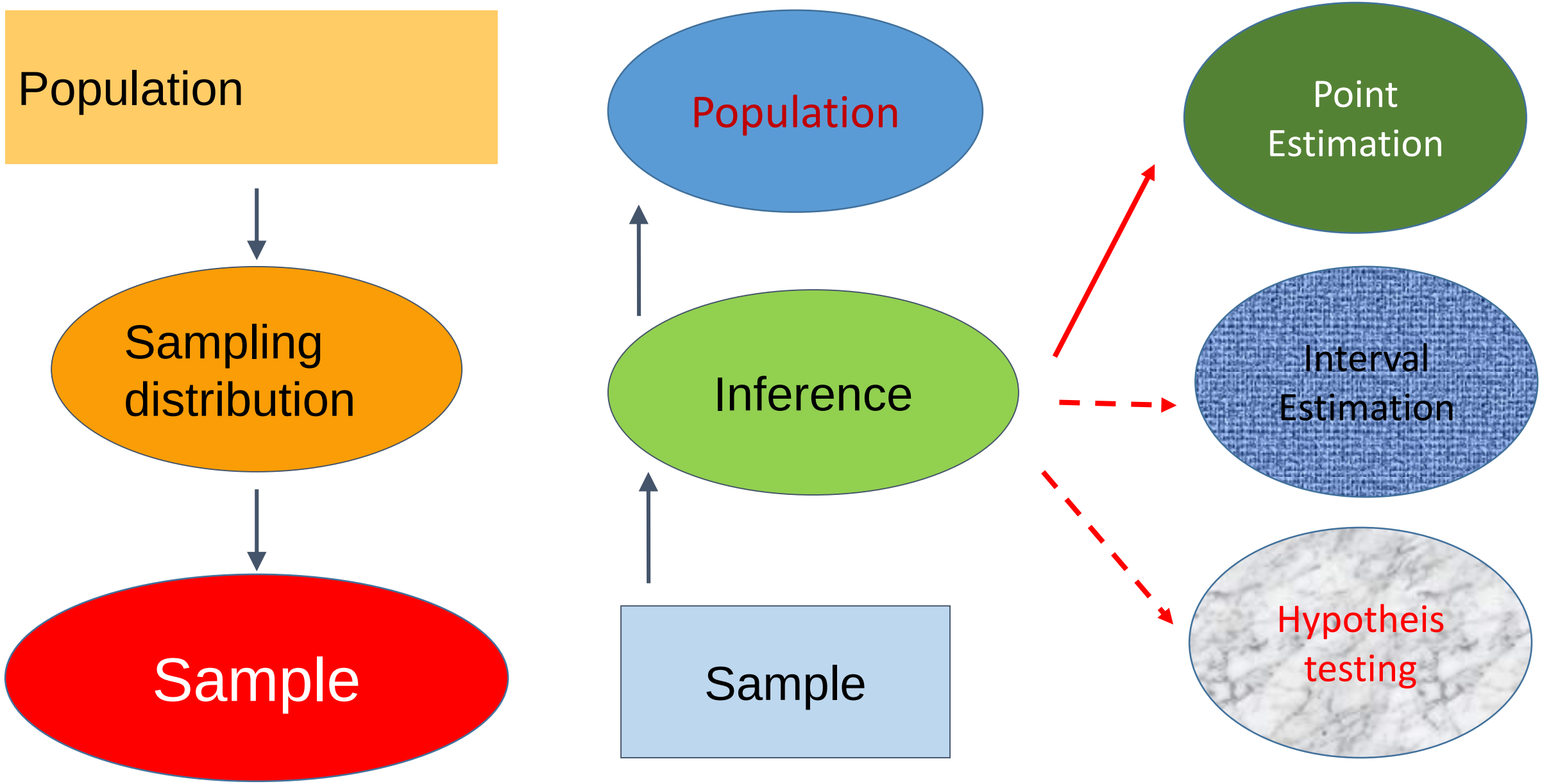
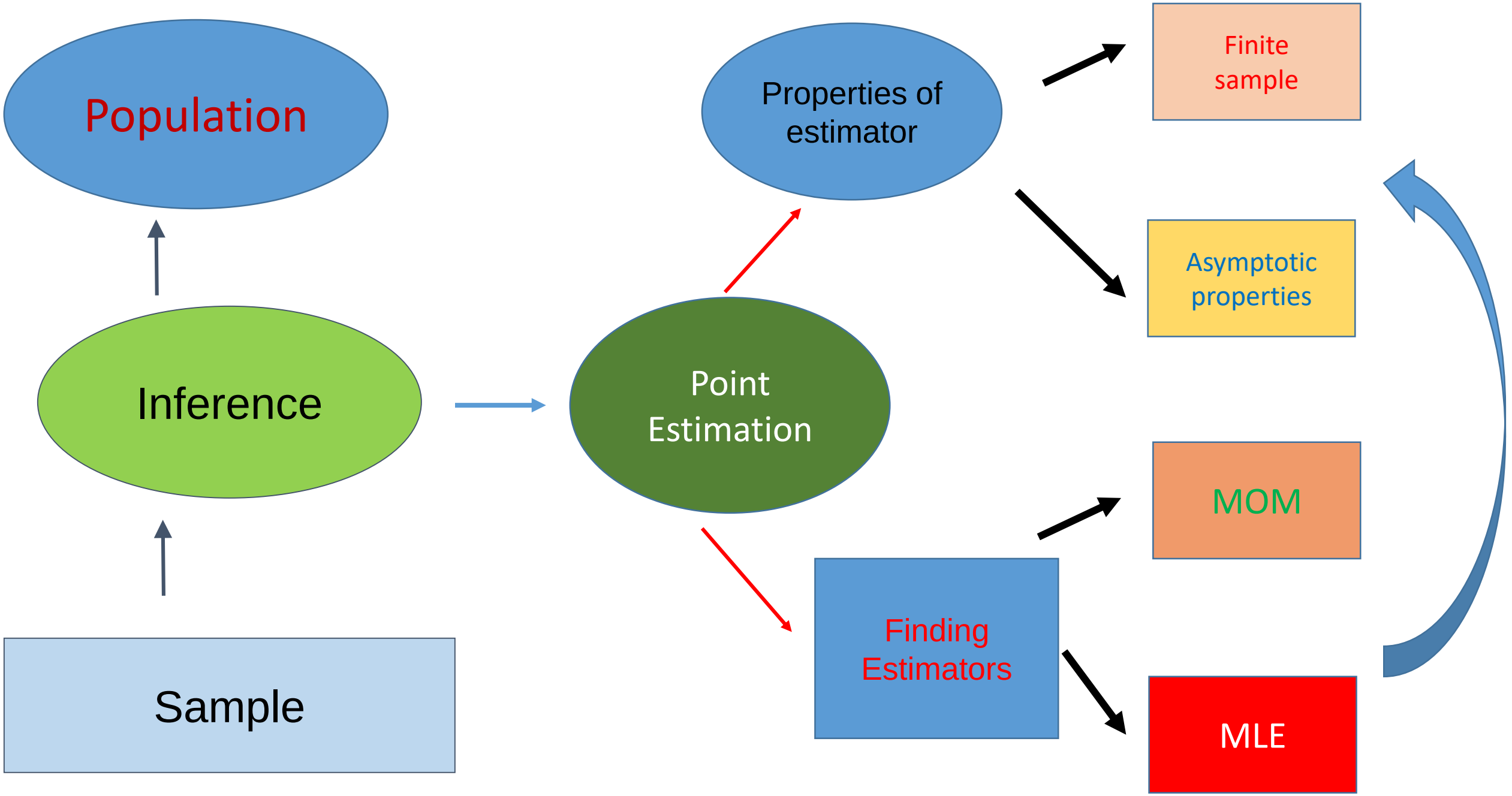
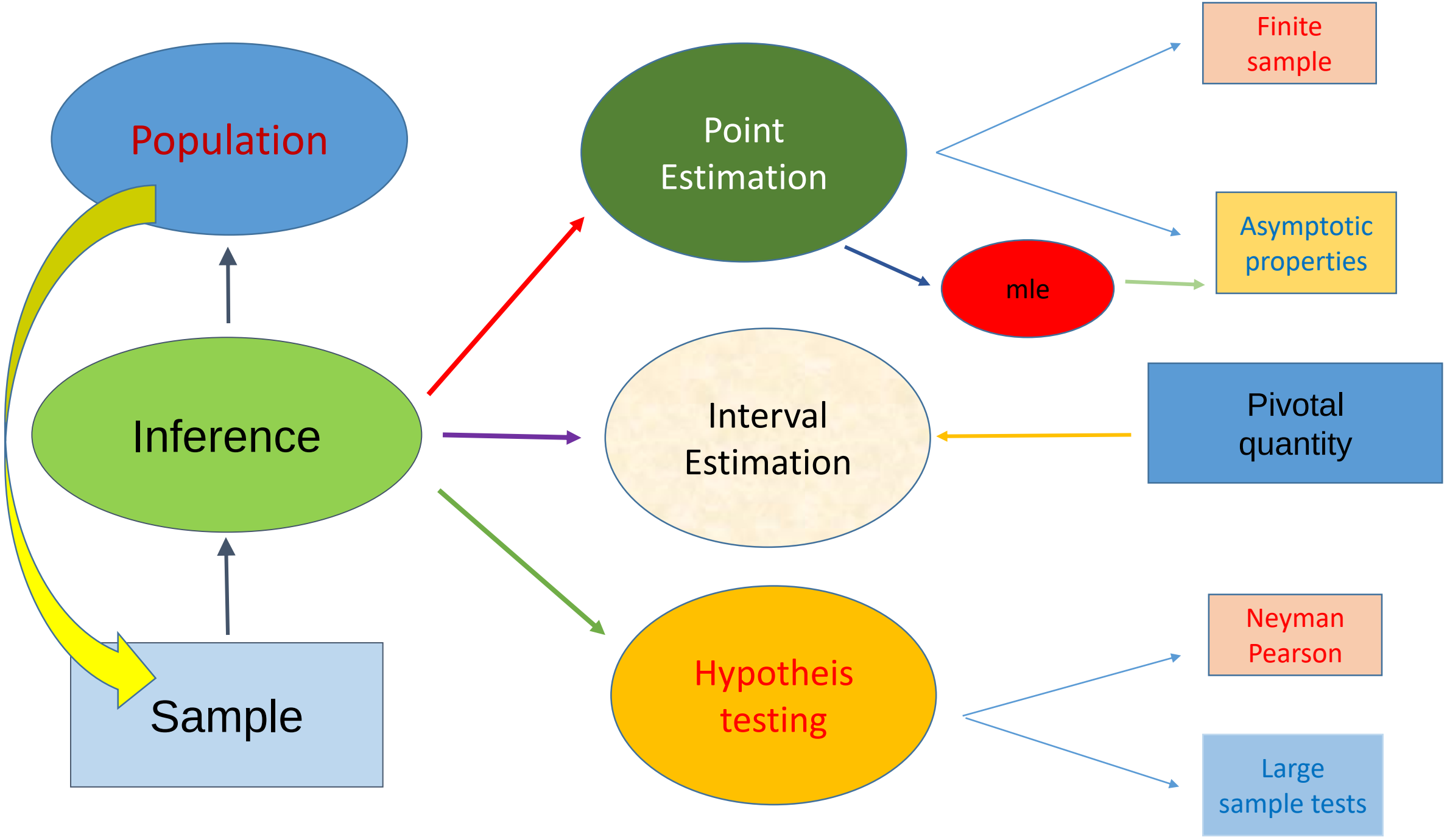
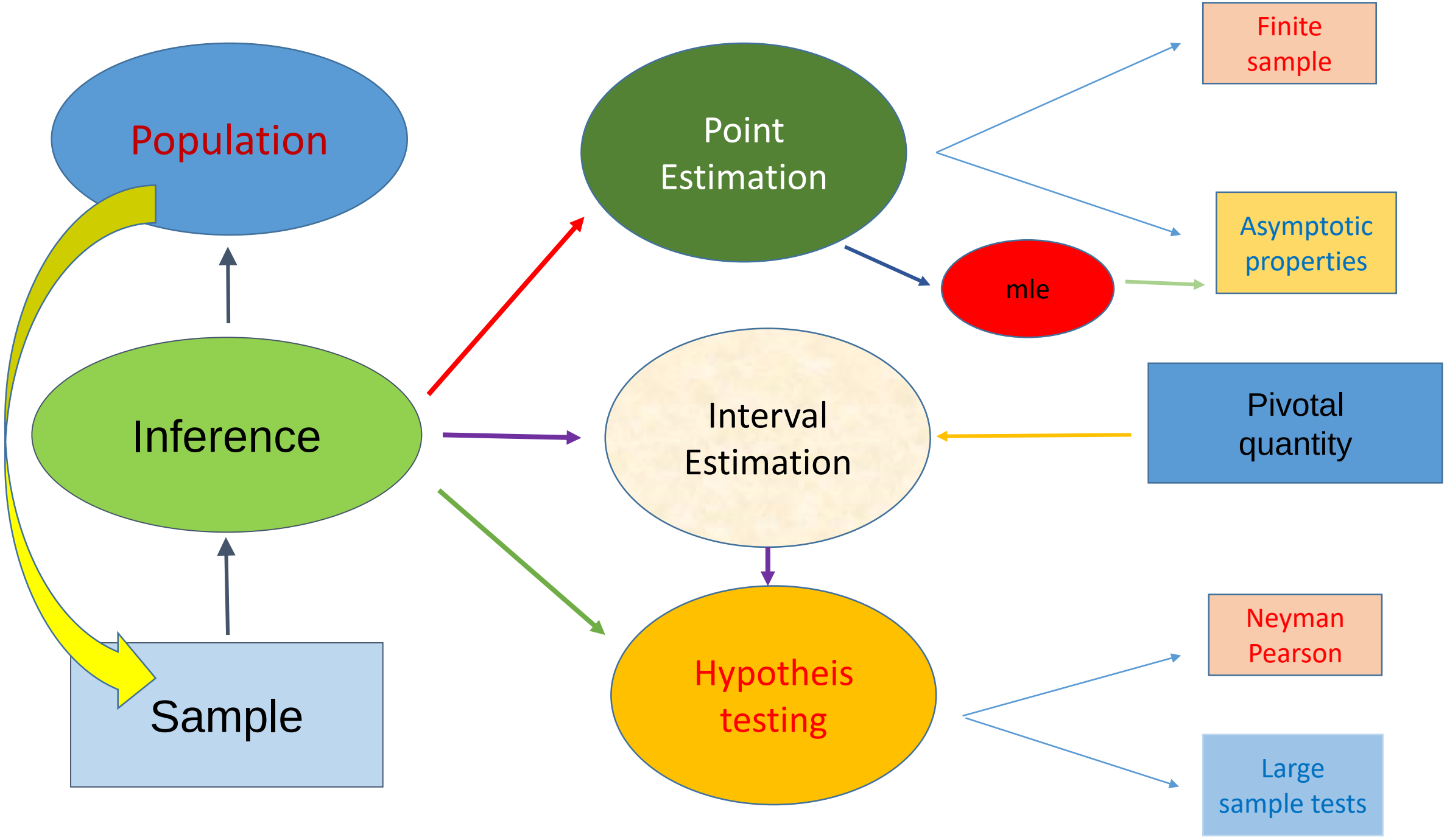
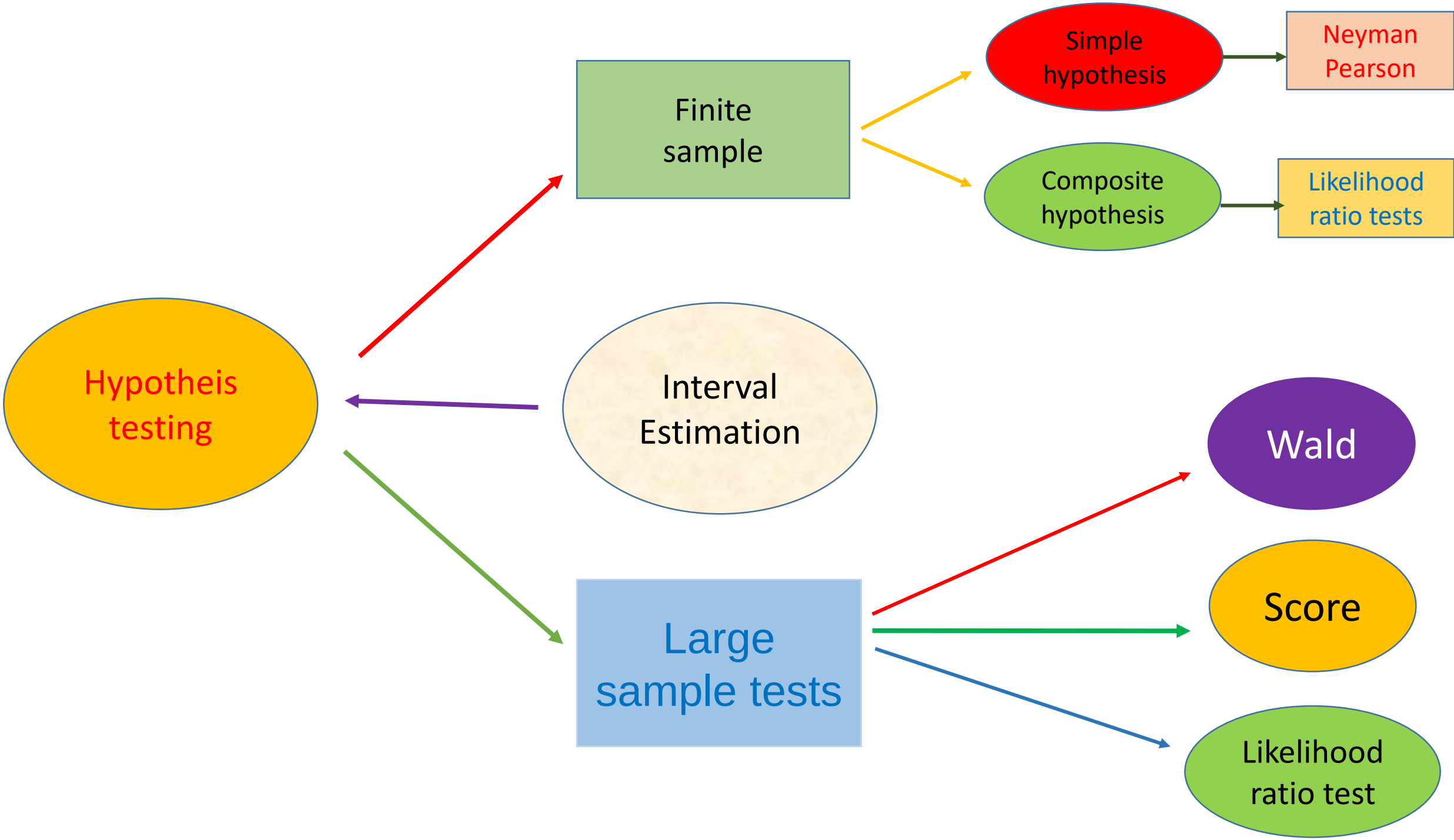

Population
Sampling distribution
Sample
Population
Inference
Point Estimation
Sample


Population
Sampling distribution
Sample
Population
Inference
Sample
Point Estimation
Interval Estimation
Hypotheis testing


Population
Inference
Sample
Point Estimation
Properties of estimator
Finite sample
Asymptotic properties
Finding Estimators
MOM
MLE


Population
Inference
Sample
Point Estimation
Interval Estimation
Hypotheis testing
Finite sample
Asymptotic properties
mle
Pivotal quantity
Neyman Pearson
Large sample tests


Population
Inference
Sample
Point Estimation
Finite sample
Asymptotic properties
mle
Interval Estimation
Pivotal quantity
Hypotheis testing
Neyman Pearson
Large sample tests


Hypotheis testing
Finite sample
Simple hypothesis
Neyman Pearson
Composite hypothesis
Likelihood ratio tests
Interval Estimation
Large sample tests
Wald
Score
Likelihood ratio test

Distribution	Parameter	$\hat{\theta}_{MOM}$	$\hat{\theta}_{MLE}$
$X \sim N(\mu,\sigma^2)$ σ^2 noto	μ	$\overline{X}$	$\overline{X}$
$X \sim Bernoulli(\pi)$	π	$\hat{p}$	$\hat{p}$
$X \sim Uniform(\theta)$	θ	$2\overline{X}$	$\max(X_i)$
$X \sim Exponential(\lambda)$	λ	$\frac{1}{\overline{X}}$	$\frac{1}{\overline{X}}$
$X \sim Pareto(x_m,\alpha)$	α	$\frac{\bar{x}}{\bar{x} - x_0}$	$\frac{n}{\sum_{i=1}^{n} \log(x_i) - n\, x_0}$

Distribution	Parameter	$\hat{\theta}_{MLE} = \hat{\theta}_{MOM}$?	Function of sufficient statistic?	Unbiased?	Consistent?
$X \sim N(\mu, \sigma^2)$ σ^2 noto	μ	Yes	Yes	Yes	Yes
$X \sim Bernoulli(\pi)$	π	Yes	Yes	Yes	Yes
$X \sim Uniform(\theta)$	θ	No	Yes	No	yes
$X \sim Exponential(\lambda)$	λ	Yes	Yes	Yes	Yes
$X \sim Pareto(x_m, \alpha)$	α	No	Yes	?	Yes