Report

Test and CI for One Proportion

Test coin for fairness if received 70 heads out of 100 tosses
Null hypothesis states that the coin is fair (0.5 or 50%)

Stat -> Basic Statistics -> 1-Proportion
Summarized data: enter data
Perform Hypothesis Test :
Hypothesized proportion = 0.5

Conclusion: this coin is not fair.

Method

p: event proportion
Exact method is used for this analysis.

Descriptive Statistics

N	Event	Sample p	95% CI for p
100	70	0.700000	(0.600185, 0.787594)

Test

Null hypothesis	H_0: p = 0.5
Alternative hypothesis	H_1: p ≠ 0.5

P-Value
0.000

Test and CI for Two Proportions

Compare office that had 65 proposals win out of 100 vs an office with 140 proposals win out of 200.

Stat -> Basic Statistics -> 2-Proportions
Summarized data: enter data

Conclusion: fail to reject null hypothesis. These offices perform similar.

Method

λ_1: Poisson rate of Sample 1
λ_2: Poisson rate of Sample 2
Difference: $\lambda_1 - \lambda_2$

Descriptive Statistics

Sample	N	Total Occurrences	Sample Rate
Sample 1	65	100	1.53846
Sample 2	140	200	1.42857

Estimation for Difference

Estimated Difference	95% CI for Difference
0.109890	(-0.250832, 0.470613)

Test

Null hypothesis	$H_0: \lambda_1 - \lambda_2 = 0$
Alternative hypothesis	$H_1: \lambda_1 - \lambda_2 \neq 0$

Method	Z-Value	P-Value
Exact		0.583
Normal approximation	0.60	0.550