



# **MANN-WHITNEY U TEST**

## **HYPOTHESIS TESTING**

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# TOPIC OUTLINE

## Mann-Whitney U-Test



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Mann-Whitney U test is a nonparametric hypothesis test used to compare two independent samples.

## Hypothesis

$$H_0: M_1 = M_2$$

$$H_a: M_1 \neq M_2 \text{ (p-value} \leq \alpha \text{)}$$

## Assumptions

- Continuous data
- Non-normal data

## syntax

```
from scipy import stats

man_stat, p_value = stats.mannwhitneyu(
    sample_1 data,
    sample_2 data)
```



# LABORATORY

