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/Users/bps/PycharmProjects/hypothesis_testing/venv/bin/python /Users/bps/PycharmProjects/hypothesis_testing/main.py
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Welcome to the Hypothesis Testing calculator made by ALIAS GEORGE

Select the Calculator (type the no corresponding eg 1 for one mean Large sample)

1. One Mean Large sample $n > 30$
2. One Mean Small sample (σ unknown)
3. Two Mean Large sample $n_1, n_2 > 30$
4. Two Mean Small sample with both normal and $\sigma_1 = \sigma_2$
5. Matched Pair t-Test
6. One Variance Test
7. Two Variance Test
8. One Proportion Test
9. Multi Proportion Test
10. Two Proportion Difference Test
11. R and C Analysis Test (Dependence Test)
12. Goodness Fit Test

6

6. One Variance Test

Level of significance: 0.05

Is the data in Variance:

1. yes

2. no

2

No of samples: 48

Standard deviation of sample σ : 9.5

Claim Standard deviation σ_0 : 10

Select the alternative Hypothesis to test with null $\sigma_0 = 10.0$

1. $\sigma < 10.0$

2. $\sigma > 10.0$

3. $\sigma \neq 10.0$

3

The null must be rejected if $\chi^2 < -29.9562$ or $\chi^2 > 67.8206$

Calculations

$\chi^2 = 42.4175$

Decision

Failure to reject Null $\sigma = 10.0$

Process finished with exit code 0