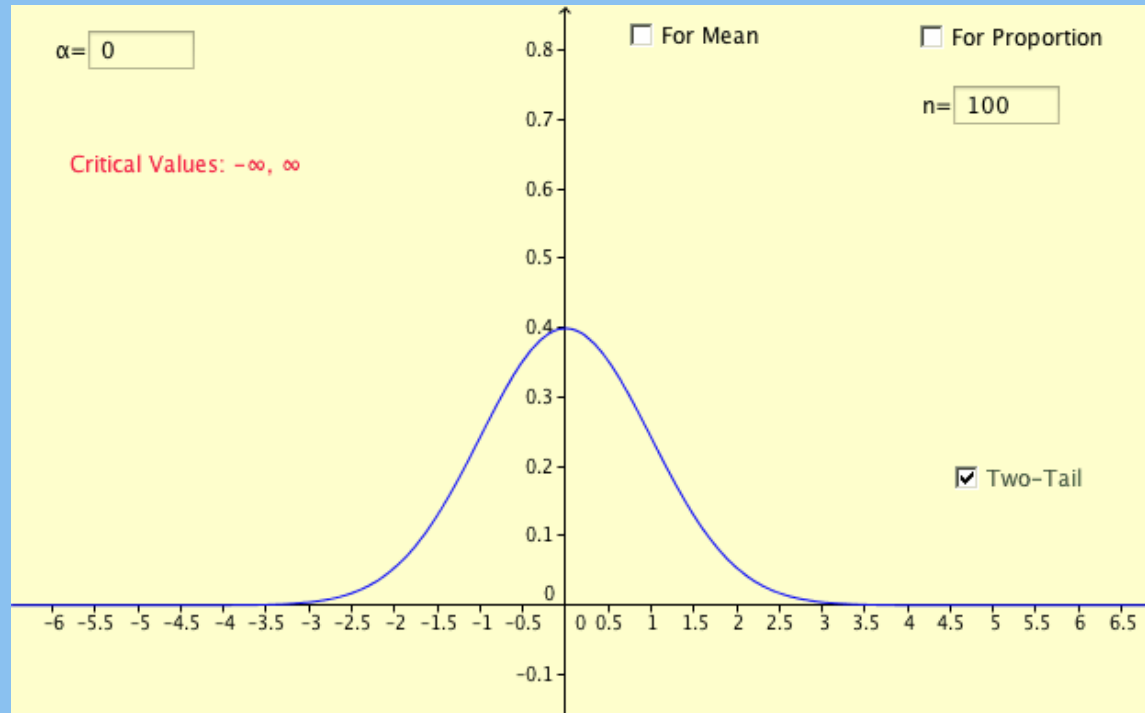


TEACHING STATISTICS WITH GEOGEBRA



AMATYC Webinar – August 9, 2019

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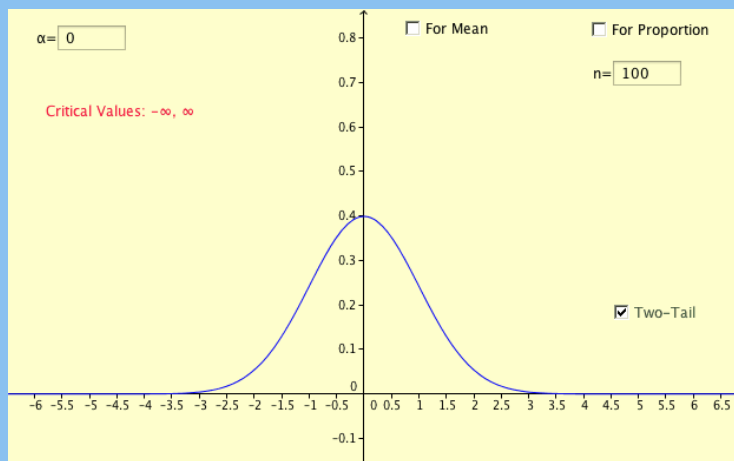
What is **GeoGebra**?

GeoGebra is developed by **Markus Hohenwarter** for his PhD dissertation.

GeoGebra is well-known for its dynamic graphing tools for **Geometry**, **Algebra**, Trigonometry, Calculus, and more....

Why GeoGebra?

- GeoGebra also has wonderful Statistics tools from creating statistical graphs to analyzing data using hypothesis tests.
- It requires no programming/coding skills.
- But you can program for more complicated applets.



It is FREE.

GeoGebra Statistics apps

1. Find the percentile and z-score.
2. Binomial probability
3. Locating the midpoint project (Phan-Yamada's app.)
4. Scatter plot and finding the correlation coefficient
5. Estimating population means, proportions
6. Hypothesis Testing: z-test, t-test, chi-square test or ANOVA

GeoGebra Statistics apps

1. Find z-score and the percentile.
2. Binomial probability

Go to <https://www.geogebra.org/>

Under **Classic Apps**

[GeoGebra Classic](#)

[Spreadsheet](#)

[Probability](#)

[CAS](#)

Go to <https://phan-yamada.weebly.com>

Select: **Conference**

Open the following files:

GeoGebra Commands and Tests for Statistics Problems for Hypothesis Testing

3. Locating the midpoint project (Phan-Yamada's app.)
4. Scatter plot, finding the correlation coefficient, and linear regression line.
5. Estimating population means and proportions
6. Hypothesis Testing: z-test, t-test, chi-square test, Goodness of Fit or ANOVA

For other projects, go to

Go to <https://www.geogebra.org/>

Under **Classic Apps**

GeoGebra Classic

Spreadsheet

Probability

CAS

6. Hypothesis Testing: chi-square test or Goodness of Fit

Go to phan-yamada.weebly.com, Select Teaching, then Statistics
For other Statistics Projects:

[Lefty-Righty](#)

[Locating the Midpoint](#)

[Smelling Parkinson's Disease Task](#)

[A Case of Possible Discrimination Task](#)

[Dolphin Therapy Task](#)

Red Light Reaction

Or email me : tphanya3@calstatela.edu

References:

GeoGebra Website:

geogebra.org

Phan-Yamada Statistics Website:

<https://sites.google.com/site/phanyamada/Home/teaching/statistics>

Statistics Using Technology:

<http://www.opentextbookstore.com/details.php?id=21>

Stat Trek: <https://stattrek.com/chi-square-test/goodness-of-fit.aspx>

For any questions, please email me :

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