Plotting Functions

Spoken Tutorial Project
https://spoken-tutorial.org
National Mission on Education through ICT
http://sakshat.ac.in

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Learning Objectives

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▶ **Plot and replot commands for 2D plotting**

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▶ **Plot three functions: sin(x), cos(x) and sin(x) + cos(x)**

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▶ **Plot three functions: sin(x), cos(x) and sin(x) + cos(x)**

▶ **Draw grid and set limits**

Learning Objectives

- Plot and replot commands for 2D plotting
- Plot three functions: sin(x), cos(x) and sin(x) + cos(x)
- Draw grid and set limits
- Zoom in and zoom out of a plot

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► **Add axis labels and graph title**

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▶ **Add axis labels and graph title**

▶ **Change font style and size**

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► **Add Greek symbols**

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► **Change font style and size**

► **Add Greek symbols**

► **Set axis tick marks**

Learning Objectives

▶ **Add axis labels and graph title**

▶ **Change font style and size**

▶ **Add Greek symbols**

▶ **Set axis tick marks**

▶ **Save the data points to a file**

System Requirements

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- **Debian Linux 9.3**

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- gnuplot 5.2.6

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- `gnuplot 5.2.6`

- **Gedit text editor 3.22.0**

Pre-requisites

- ▶ **Learner must be familiar with high school Mathematics**

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▶ **For pre-requisite** gnuplot **tutorials, please visit this site https://spoken-tutorial.org**

Summary

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- ▶ **Plotted 2D graphs of functions**
- ▶ **Added grid and set limits**
- ▶ **Zoomed in and zoomed out of a plot**
- ▶ **Added axis labels and graph title**
- ▶ **Changed font style and size**
- ▶ **Saved the data points to a file**

Assignment

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Plot the following functions:

- $tan(x)$
- x^2
- $(x-3)^2$

About the Spoken Tutorial Project

- ▶ Watch the video available at https://spoken-tutorial.org /What_is_a_Spoken_Tutorial

- ▶ It summarises the Spoken Tutorial project

- ▶ If you do not have good bandwidth, you can download and watch it

Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ **Conducts workshops using spoken tutorials**

- ▶ **Gives certificates to those who pass an online test**

- ▶ **For more details, please write to contact@spoken-tutorial.org**

Forum for Specific Questions

▶ **Do you have questions in THIS Spoken Tutorial?**

▶ **Please visit https://forums.spoken-tutorial.org**

▶ **Choose the minute and second where you have the question**

▶ **Explain your question briefly**

▶ **Someone from our team will answer them**

Acknowledgements

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- **It is supported by the National Mission on Education through ICT, MHRD, Government of India**

- **More information on this Mission is available at https://spoken-tutorial.org/ NMEICT-Intro**