

Scripting and LaTeX in GeoGebra

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives



Learning Objectives

We will learn to,



Learning Objectives

We will learn to,

- **Use various script commands to draw and manipulate objects**



Learning Objectives

We will learn to,

- **Use various script commands to draw and manipulate objects**
- **Use IF commands to draw objects**



Learning Objectives

We will learn to,

- Use various script commands to draw and manipulate objects
- Use IF commands to draw objects
- **Convert GeoGebra file to a LaTeX file**



Learning Objectives

We will learn to,

- **Use various script commands to draw and manipulate objects**
- **Use IF commands to draw objects**
- **Convert GeoGebra file to a LaTeX file**
- **Run the LaTeX code to show the output in pdf format**



System Requirement



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- **Ubuntu Linux OS v 18.04**



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- **GeoGebra v 5.0.660.0-d**



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- **TeXworks v 0.6.3**



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- **Ubuntu Linux OS v 18.04**
- **GeoGebra v 5.0.660.0-d**
- **TeXworks v 0.6.3**
- **The commands shown in this tutorial will work in all 5.0x versions of GeoGebra**



Pre-requisites



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- You should have full version of **TeXworks** installed on your system



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- You should be familiar with **GeoGebra** and **LaTeX**



Pre-requisites

- You should have full version of **TeXworks** installed on your system
- You should be familiar with **GeoGebra** and **LaTeX**
- For the prerequisite **GeoGebra** and **LaTeX** tutorials, please visit <https://spoken-tutorial.org>



Code Files

- The files used in this tutorial are provided in the Code files link



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- The files used in this tutorial are provided in the Code files link
- Please download and extract the files



Code Files

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- Make a copy and use them for practising



Assignment

Use IF command to:

- 1 Draw triangles of different sizes
- 2 Plot $\sin(x)$ and $\sinh(x)$ functions
- 3 Plot $\cot(x)$ and $\cos(x)$ functions
- 4 Plot $\sin(90-x)$ and $\sinIntegral(x)$ functions



Summary

We have learnt to,

- **Use various script commands to draw and manipulate objects**
- **Use IF commands to draw objects**
- **Convert GeoGebra file to a LaTeX file**
- **Run the LaTeX code to show the output in pdf format**



Assignment



Assignment

- 1 Plot $\sin(x)$, $\cos(x)$ and $\tan(x)$ functions in the same GeoGebra file
- 2 Using the GeoGebra file generate a LaTeX code for article class
- 3 Run the LaTeX code to generate a pdf file



Assignment



Assignment

- 1 **Open a new GeoGebra window**
- 2 **Draw a circumscribed circle in it**
- 3 **Generate a LaTeX code for beamer class**
- 4 **Run the LaTeX code to generate a pdf file**



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



Answers for THIS Spoken Tutorial

- Questions in THIS Spoken Tutorial?
- Visit <https://forums.spoken-tutorial.org>
- Choose the minute and second where you have the question
- Explain your question briefly
- The Spoken Tutorial project will ensure an answer

You will have to register to ask questions



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