

Overview of 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,



Learning Objectives

We will learn,

- **About GeoGebra software**



Learning Objectives

We will learn,

- **About GeoGebra software**
- **GeoGebra website**



Learning Objectives

We will learn,

- **About GeoGebra software**
- **GeoGebra website**
- **Download and installation of GeoGebra**



Learning Objectives

We will learn,

- **About GeoGebra software**
- **GeoGebra website**
- **Download and installation of GeoGebra**
- **The benefits of GeoGebra**



Learning Objectives

We will learn,

- **About GeoGebra software**
- **GeoGebra website**
- **Download and installation of GeoGebra**
- **The benefits of GeoGebra**
- **Play video clippings of GeoGebra tutorials available on this website**



System Requirement



System Requirement

- **Ubuntu Linux OS version 16.04**



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- **Ubuntu Linux OS version 16.04**
- **Windows 10**



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- **Ubuntu Linux OS version 16.04**
- **Windows 10**
- **GeoGebra version 5.x**



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- **Ubuntu Linux OS version 16.04**
- **Windows 10**
- **GeoGebra version 5.x**
- **Mozilla Firefox Browser 67.0**



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- **Ubuntu Linux OS version 16.04**
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- **Open jdk 9**



System Requirement

- **Ubuntu Linux OS version 16.04**
- **Windows 10**
- **GeoGebra version 5.x**
- **Mozilla Firefox Browser 67.0**
- **Open jdk 9**
- **A working Internet connection**



Pre-requisites



Pre-requisites

- **Learner should have knowledge of basic Mathematics**



About GeoGebra



About GeoGebra

- **GeoGebra is a dynamic and interactive mathematics software for geometry, algebra and calculus**



About GeoGebra

- **GeoGebra is a dynamic and interactive mathematics software for geometry, algebra and calculus**
- **It is useful for computer aided interactive learning**



About GeoGebra



About GeoGebra

- It is a free/libre and open source cross-platform software



About GeoGebra

- It is a free/libre and open source cross-platform software
- Its code is written in Java programming environment



Download GeoGebra



Download GeoGebra

**How to download GeoGebra on,
Windows 10 & Ubuntu Linux 16.04 OS**



GeoGebra Classic 5



GeoGebra Classic 5

- **GeoGebra Classic 5** is the stable version of GeoGebra, while recording this tutorial



GeoGebra Classic 5

- **GeoGebra Classic 5** is the stable version of GeoGebra, while recording this tutorial
- To practise these tutorials, you can download any 5.x version of GeoGebra



Benefits of GeoGebra



Benefits of GeoGebra

- **GeoGebra is simple and flexible in all its features**



Benefits of GeoGebra

- **GeoGebra is simple and flexible in all its features**
- **It allows to use the tools in 2D and 3D Graphics modes**



Benefits of GeoGebra

- **GeoGebra is simple and flexible in all its features**
- **It allows to use the tools in 2D and 3D Graphics modes**
- **GeoGebra helps to create worksheets and learning materials**



Benefits of GeoGebra



Benefits of GeoGebra

- Tools in GeoGebra help in constructions and calculations and to prove theorems



Video Clippings



Video Clippings

We will briefly go through the individual tutorials created in this series



Spoken Tutorial: Introduction to GeoGebra



Spoken Tutorial: Introduction to GeoGebra

Explains about,



Spoken Tutorial: Introduction to GeoGebra

Explains about,

- **GeoGebra interface and geometric tools**



Spoken Tutorial: Introduction to GeoGebra

Explains about,

- **GeoGebra interface and geometric tools**
- **How to draw lines and change object properties of a line**



Spoken Tutorial: Introduction to GeoGebra

Explains about,

- GeoGebra interface and geometric tools
- How to draw lines and change object properties of a line
- **Properties of Graphics view**



Spoken Tutorial: Basics of Triangles



Spoken Tutorial: Basics of Triangles

Explains about how to,



Spoken Tutorial: Basics of Triangles

Explains about how to,

- **Draw a triangle and show its basic properties**



Spoken Tutorial: Basics of Triangles

Explains about how to,

- **Draw a triangle and show its basic properties**
- **Draw altitudes of the triangle and an incircle to a triangle**



Spoken Tutorial: Congruency of Triangles



Spoken Tutorial: Congruency of Triangles

Explains about,



Spoken Tutorial: Congruency of Triangles

Explains about,

- **Congruency rules of triangles and their proofs**



Spoken Tutorial: Properties of Quadrilaterals



Spoken Tutorial: Properties of Quadrilaterals

Explains,



Spoken Tutorial: Properties of Quadrilaterals

Explains,

- **How to construct different types of quadrilaterals**



Spoken Tutorial: Properties of Quadrilaterals

Explains,

- **How to construct different types of quadrilaterals**
- **Properties of various quadrilaterals**



Spoken Tutorial: Types of Symmetry



Spoken Tutorial: Types of Symmetry

Various types of symmetry like:



Spoken Tutorial: Types of Symmetry

Various types of symmetry like:

- **Line**



Spoken Tutorial: Types of Symmetry

Various **types of symmetry** like:

- **Line**
- **Point**



Spoken Tutorial: Types of Symmetry

Various **types of symmetry** like:

- **Line**
- **Point**
- **Rotation**



Spoken Tutorial: Types of Symmetry

Various **types of symmetry** like:

- **Line**
- **Point**
- **Rotation**
- **Translational**



Spoken Tutorial: Types of Symmetry

Various **types of symmetry** like:

- **Line**
- **Point**
- **Rotation**
- **Translational**
- **Scale**



Spoken Tutorial: Polynomials



Spoken Tutorial: Polynomials

Explains about,



Spoken Tutorial: Polynomials

Explains about,

- **Slope of a linear polynomial**



Spoken Tutorial: Polynomials

Explains about,

- **Slope of a linear polynomial**
- **Degree, zeros and roots of the polynomials**



Spoken Tutorial: Polynomials

Explains about,

- **Slope of a linear polynomial**
- **Degree, zeros and roots of the polynomials**
- **Remainder theorem**



Spoken Tutorial: Polynomials

Explains about,

- **Slope of a linear polynomial**
- **Degree, zeros and roots of the polynomials**
- **Remainder theorem**
- **Factorization of polynomials**



Spoken Tutorial: Theorems in GeoGebra



Spoken Tutorial: Theorems in GeoGebra

Explains about how to state and prove,



Spoken Tutorial: Theorems in GeoGebra

Explains about how to state and prove,

- **Pythagoras theorem**



Spoken Tutorial: Theorems in GeoGebra

Explains about how to state and prove,

- **Pythagoras theorem**
- **Midpoint theorem**



Summary



Summary

We learnt,

- **About GeoGebra software**
- **GeoGebra website**



Summary



Summary

We also,

- **Downloaded and installed GeoGebra**
- **Learnt the benefits of GeoGebra**
- **Watched glimpses of the GeoGebra tutorials available on this website**



Assignment



Assignment

As an assignment,



Assignment

As an assignment,

- 1 Open the GeoGebra interface and go through the Help menu**



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



Forum for specific questions

- **The Spoken Tutorial forum is for specific questions on this tutorial**
- **Please do not post unrelated and general questions on them**
- **This will help reduce the clutter**
- **With less clutter, we can use this discussion as instructional material**



Acknowledgements

- Spoken Tutorial Project is a part of the Talk to a Teacher project
- 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>

