

# Basics of Triangles

**Spoken Tutorial Project**

<http://spoken-tutorial.org>

**National Mission on Education through ICT**

<http://sakshat.ac.in>

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# Learning Objectives



# Learning Objectives

- Draw a triangle and measure its angles



# Learning Objectives

- Draw a triangle and measure its angles
- Display perimeter and area of the triangle



# Learning Objectives

- Draw a triangle and measure its angles
- Display perimeter and area of the triangle
- Show that sum of the angles of a triangle is 180 degrees



# Learning Objectives

- Draw a triangle and measure its angles
- Display perimeter and area of the triangle
- Show that sum of the angles of a triangle is 180 degrees
- Show that exterior angle is equal to sum of the interior opposite angles



# Learning Objectives



# Learning Objectives

**We will learn to draw,**



# Learning Objectives

**We will learn to draw,**

- **Altitudes of the triangle and locate the orthocenter**



# Learning Objectives

We will learn to draw,

- Altitudes of the triangle and locate the orthocenter
- An incircle to a triangle



# System Requirement



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- **Ubuntu Linux OS v 14.04**



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- **GeoGebra v 5.0.438.0-d**



# Pre-requisites



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- **GeoGebra interface**



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- **GeoGebra interface**
- **If not, for relevant GeoGebra tutorials, please visit our website [www.spoken-tutorial.org](http://www.spoken-tutorial.org)**



# Summary



# Summary

- Draw a triangle and measure its angles
- Display perimeter and area of the triangle
- Show that sum of the angles of a triangle is 180 degrees
- Show that exterior angle is equal to sum of the interior opposite angles



# Summary



# Summary

**We have also learnt to draw,**

- Altitudes of the triangle and locate the orthocenter**
- An incircle to a triangle**



# Assignment



# Assignment

- 1 Draw a circumscribed circle to the triangle



# Assignment

- 1 Draw a circumscribed circle to the triangle
- 2 Hint: Draw perpendicular bisectors to the sides of the triangle



# Assignment



# Assignment

① Draw medians to the triangle



# Assignment

- 1 Draw medians to the triangle
- 2 Mark the intersection point of medians



# Assignment

- 1 Draw medians to the triangle
- 2 Mark the intersection point of medians
- 3 **Rename the point as centroid**



# Assignment

- 1 Draw medians to the triangle
- 2 Mark the intersection point of medians
- 3 Rename the point as centroid
- 4 **Hint: Mark midpoints of the sides,  
Join the midpoint of each side with the  
opposite vertex**



# About the Spoken Tutorial Project

- Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://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](mailto:contact@spoken-tutorial.org)



# Forum for specific questions

- Do you have questions in **THIS Spoken Tutorial?**
- Please visit <http://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**

<http://spoken-tutorial.org /NMEICT-Intro>

