

# Congruency 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

**We will learn to,**



# Learning Objectives

**We will learn to,**

- **Construct congruent triangles**



# Learning Objectives

**We will learn to,**

- **Construct congruent triangles**
- **Prove their congruency**



# System Requirement



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- **Ubuntu Linux OS v 14.04**



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- **Ubuntu Linux OS v 14.04**
- **GeoGebra v 5.0.438.0-d**





# Pre-requisites



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- **GeoGebra interface**



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- **GeoGebra** interface
- For the prerequisite **GeoGebra** tutorials, please visit our website [www.spoken-tutorial.org](http://www.spoken-tutorial.org)



# Congruency of Triangles



# Congruency of Triangles

**Two triangles are congruent if,**



# Congruency of Triangles

**Two triangles are congruent if,**

- **They are of the same size and shape**



# Congruency of Triangles

Two triangles are congruent if,

- They are of the same size and shape
- All the corresponding sides and interior angles are congruent

$$\triangle ABC \cong \triangle DEF$$



# SSS rule of Congruency





# SSS rule of Congruency

Two triangles are congruent if,  
three sides of one triangle are equal to  
the three corresponding sides of another  
triangle



# Assignment



# Assignment

1 Join the points D, G and G, E



# Assignment

- 1 Join the points D, G and G, E
- 2 Compare the segment lengths in the Algebra view



# ASA rule of Congruency



# ASA rule of Congruency

Two triangles are congruent if, two angles and an included side of a triangle are equal to two corresponding angles and an included side of another triangle



# SAS rule of Congruency



# SAS rule of Congruency

Two triangles are congruent if,  
two sides and an included angle of a  
triangle are equal to corresponding two  
sides and an included angle of another  
triangle





# Summary



# Summary

**We have learnt to,**

- **Construct congruent triangles**
- **Prove their congruency**



# Assignment



# Assignment

**Construct two triangles and prove,**



# Assignment

**Construct two triangles and prove,**

**① Angle Angle Side rule of congruency**



# Assignment

**Construct two triangles and prove,**

- ① Angle Angle Side rule of congruency**
- ② Hypotenuse Leg rule of congruency**



# 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



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- More information on this Mission is available at

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

