

# Programming Concepts

**Talk to a Teacher**

**<http://spoken-tutorial.org>**

**National Mission on Education through ICT**

**<http://sakshat.ac.in>**

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# Learning Objectives



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**We will learn how to**



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**We will learn how to**

- ▶ **Write a program in K Turtle**



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**We will learn how to**

- ▶ **Write a program in K Turtle**
- ▶ **Use variables to store user input**



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- ▶ **Use print command to print on canvas**



# Learning Objectives

**We will learn how to**

- ▶ **Write a program in K Turtle**
- ▶ **Use variables to store user input**
- ▶ **Use print command to print on canvas**
- ▶ **Comment a line**



# System Requirement





# System Requirement

- **Ubuntu Linux OS Version 11.10**



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- ▶ **Ubuntu Linux OS Version 11.10**
- ▶ **KTurtle version 0.8.1 beta**



# Pre-requisites



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- ▶ **Basic working knowledge of K Turtle**



# Pre-requisites

- ▶ **Basic working knowledge of K Turtle**
- ▶ **For relevant tutorials, please visit our website**  
<http://spoken-tutorial.org>



# Sprite



# Sprite

- ▶ Turtle displayed on the canvas is called sprite



# Sprite

- ▶ **Turtle displayed on the canvas is called sprite**
- ▶ **Sprite is a small image that moves around the screen**





# Sprite

- ▶ Turtle displayed on the canvas is called sprite
- ▶ Sprite is a small image that moves around the screen
- ▶ Eg: cursor is a sprite



# Sprite Commands



# Sprite Commands

- ▶ **Spritehide** command hides turtle from canvas



# Sprite Commands

- ▶ **Spritehide** command hides turtle from canvas
- ▶ **Spriteshow** command shows turtle if it is hidden



# Sprite Commands

- ▶ **Spritehide** command hides turtle from canvas
- ▶ **Spriteshow** command shows turtle if it is hidden
- ▶ **Clear** command cleans all drawings from canvas



# Symbols



# Symbols

- ▶ **\$ sign is a container of variables**



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- ▶ **\* is used for multiplication of two numbers**





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- ▶ **^ raises the power of a number**



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- ▶ **# sign comments a line**



# Symbols

- ▶ **\$ sign is a container of variables**
- ▶ **\* is used for multiplication of two numbers**
- ▶ **^ raises the power of a number**
- ▶ **# sign comments a line**
- ▶ **'sqrt' is an inbuilt function to find square root**



# Summary



# Summary

**We have learnt**



# Summary

**We have learnt**

- ▶ **Programming concepts**



# Summary

**We have learnt**

- ▶ **Programming concepts**
- ▶ **Use of `sqrt` function**



# Summary

**We have learnt**

- ▶ **Programming concepts**
- ▶ **Use of `sqrt` function**
- ▶ **Use of `print` command**





# Summary

**We have learnt**

- ▶ **Programming concepts**
- ▶ **Use of `sqrt` function**
- ▶ **Use of `print` command**
- ▶ **Using `KTurtle` editor and canvas**



# Assignment



# Assignment

**Basic programming commands to find**



# Assignment

## Basic programming commands to find

- Cube of a number



# Assignment

## Basic programming commands to find

- ▶ **Cube of a number**
- ▶ **nth root of a number**



# 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



# About the Spoken Tutorial Project

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- ▶ 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)





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

