

Graphing Quadratics

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

Shraddha Kodavade

FOSSEE, IIT Bombay

16 June 2022



Learning Objectives



Learning Objectives

We will learn about,



Learning Objectives

We will learn about,

► **Quadratic polynomials**



Learning Objectives

We will learn about,

- ▶ **Quadratic polynomials**
- ▶ **Axis of symmetry, directrix, vertex and intercepts of a parabola**



Learning Objectives

We will learn about,

- ▶ **Quadratic polynomials**
- ▶ **Axis of symmetry, directrix, vertex and intercepts of a parabola**
- ▶ **How to graph quadratic equations in two variables**



System Requirement



System Requirement

- ▶ **Windows 10 (64-bit) operating system**



System Requirement

- ▶ **Windows 10 (64-bit) operating system**
- ▶ **Chrome version 101.0.49**



Prerequisites



Prerequisites

- ▶ Learner should be familiar with topics in basic mathematics

Prerequisites

- ▶ Learner should be familiar with topics in basic mathematics
- ▶ Please use the link below to access the tutorials on PhET Simulations
<https://spoken-tutorial.org>



Link for PhET Simulation

- ▶ Please use the given link to download the PhET simulation
<https://phet.colorado.edu/en/simulations/graphing-quadratics>



PhET Simulations



PhET Simulations

In this tutorial we will use,



PhET Simulations

In this tutorial we will use,

- **Graphing Quadratics PhET simulation**



Summary

We have learnt about:

- ▶ **Quadratic polynomials**
- ▶ **Axis of symmetry, directrix, vertex and intercepts of a parabola**
- ▶ **How to graph quadratic equations in two variables**



Assignment

1. Explore the third screen - Vertex Form
2. Change the values of a , h and k
3. Check the graph and its roots



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



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



Acknowledgements

**The Spoken Tutorial project is
funded by the Ministry of Education,
Govt. of India**



Thank you

- ▶ This is Shraddha Kodavade, a FOSSEE summer fellow 2022, IIT Bombay signing off
- ▶ Thanks for joining

