

Vector Addition

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

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Learning Objectives



Learning Objectives

We will learn about,



Learning Objectives

We will learn about,

► 1D and 2D dimensions of a vector



Learning Objectives

We will learn about,

- ▶ 1D and 2D dimensions of a vector
- ▶ **Vector Addition and Scalar multiplication**



Learning Objectives

We will learn about,

- ▶ 1D and 2D dimensions of a vector
- ▶ Vector Addition and Scalar multiplication
- ▶ How to arrange vectors graphically to represent vector addition or subtraction



System Requirement



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



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



Prerequisites



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- ▶ A learner should be familiar with topics in basic mathematics



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- ▶ 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/vector-addition>



Vector

- ▶ **A vector is a quantity that has both magnitude and direction**



PhET Simulations



PhET Simulations

In this tutorial we will use,



PhET Simulations

In this tutorial we will use,

► **Vector Addition PhET simulation**



Summary

- ▶ 1D and 2D dimensions of a vector
- ▶ How to perform Vector Addition and Scalar multiplication
- ▶ How to arrange vectors graphically to represent vector addition or subtraction



Assignment



Assignment

1. Explore the Lab screen available at the bottom of the simulation



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



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- ▶ 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

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Thank you

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

