

# Iteration & Graph Plotting in ASCEND

Talk to a Teacher Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

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

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# Learning Objectives



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**We will learn how to**



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- ▶ **Use FOR loop in ASCEND**



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- ▶ Use **Arrays** in **MODEL**



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We will learn how to

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- ▶ Use Arrays in MODEL
- ▶ Plot Graphs using ASCEND



# System Requirements



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- ▶ **Ubuntu Linux OS v.12.04**





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- ▶ **ASCEND v. 0.9.8**



# Prerequisite



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- ▶ For relevant ASCEND tutorials, please visit <http://spoken-tutorial.org>



# Problem Statement

- ▶ Study the variation in mass of a thin walled cylindrical vessel with respect to its  $H$  to  $D$  ratio



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- ▶ Study the variation in mass of a thin walled cylindrical vessel with respect to its H to D ratio
- ▶ H = height and D = diameter of the vessel



# Problem Statement

- ▶ The equation describing our system is:  
$$\text{metal mass} = \text{metal density} * \text{wall volume}$$





# Summary

**We have learnt how to:**

- ▶ **Use FOR loop in ASCEND**
- ▶ **Use Arrays in MODEL**
- ▶ **Plot Graphs in ASCEND**



# Assignment



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- **Change Array size to 40 and re-attempt the problem covered in this tutorial**



# 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 summarizes the Spoken Tutorial project



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- ▶ It summarizes 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)



# Acknowledgments

- ▶ 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>



# Thank You

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