

Units and Measurements

Topic Tree from "Units and Measurements"

1. Introduction

2. The International System of Units

- SI Base Quantities and Units
- Units for Plane Angle and Solid Angle

3. Measurement of Length

- Direct Methods
- Measurement of Large Distances (Parallax Method)
- Estimation of Very Small Distances
- Range of Lengths

4. Measurement of Mass

- Range of Masses

5. Measurement of Time

- Atomic Standard of Time
- Range of Time Intervals

6. Accuracy, Precision of Instruments and Errors in Measurement

- Systematic Errors
- Random Errors
- Least Count Error

7. Significant Figures

- Rules for Determining Significant Figures
- Rounding Off
- Arithmetic Operations with Significant Figures

8. Dimensions of Physical Quantities

- Dimensional Formulae and Dimensional Equations

9. Dimensional Analysis and Its Applications

- Checking Dimensional Consistency
- Deriving Relations among Physical Quantities