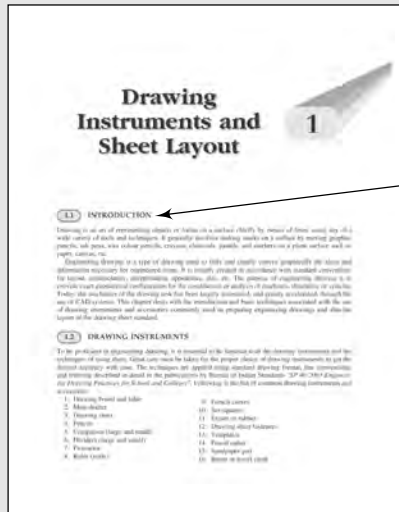


# Visual Walkthrough



## Introduction

Introduction provides a quick look into the concepts that the reader is going to learn.

### Drawing Instruments and Sheet Layout

#### 1.1 INTRODUCTION

Drawing is an art of representing objects or surfaces in a scientific manner. It is a visual communication tool used by engineers, architects, and designers to convey their ideas and designs.

Drawing is a type of communication tool used to convey ideas and designs in a visual manner. It is a visual communication tool used by engineers, architects, and designers to convey their ideas and designs.

#### 1.2 DRAWING INSTRUMENTS

To be proficient in drawing, it is essential to know the various drawing instruments and their uses. The instruments used in drawing are classified into drawing instruments and drawing instruments.

- |                                 |                              |
|---------------------------------|------------------------------|
| 1. Drawing board and table      | 10. French curves            |
| 2. Main scales                  | 11. Set squares              |
| 3. Drawing pins                 | 12. Drawing sheet fasteners  |
| 4. Paper                        | 13. Compass                  |
| 5. Pencil/sharpener and lead    | 14. Bow divider              |
| 6. Protractor (large and small) | 15. Spring divider           |
| 7. Pen nib                      | 16. Bore or pencil sharpener |

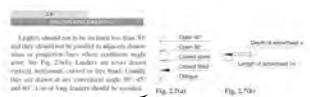


Fig. 2.7(a) and Fig. 2.7(b) show dimensioning rules and standards. Fig. 2.7(a) shows the dimensioning symbols and Fig. 2.7(b) shows the dimensioning rules and standards.

## BIS Codes

The drawings have been prepared with the help of advanced software packages maintaining the recommendations of latest B.I.S. standards.

#### 2.2.1 PLACING OF DIMENSIONS

Dimensions should be placed on the view which shows the true and feature most clearly. The two recommended systems of placing the dimensions are as follows:

1. **Aligned System for Linear Dimensioning:** In this system, all dimension lines are placed parallel to the feature being dimensioned. The dimension lines are placed parallel to the feature being dimensioned. See Fig. 2.8(a).
2. **Horizontal System for Linear Dimensioning:** In this system, all dimension lines are placed parallel to the horizontal axis of the drawing. See Fig. 2.8(b).
3. **Horizontal System for Angular Dimensioning:** In this system, all dimension lines are placed parallel to the horizontal axis of the drawing. See Fig. 2.8(c).
4. **Horizontal System for Angular Dimensioning:** In this system, all dimension lines are placed parallel to the horizontal axis of the drawing. See Fig. 2.8(d).

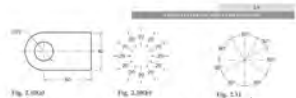


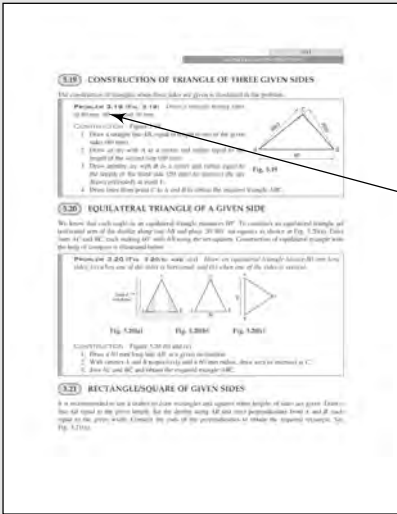
Fig. 2.8(a) Fig. 2.8(b) Fig. 2.8(c) Fig. 2.8(d)

#### 2.2.2 GENERAL RULES OF DIMENSIONING

1. Dimension lines should be clear and precise only one intermediate extension and letter should be kept. The dimension line should be placed in line with the feature being dimensioned.
2. Dimension lines should be placed in line with the feature being dimensioned.
3. Dimension lines should be placed in line with the feature being dimensioned.
4. Dimension lines should be placed in line with the feature being dimensioned.
5. Dimension lines should be placed in line with the feature being dimensioned.
6. Dimension lines should be placed in line with the feature being dimensioned.
7. Dimension lines should be placed in line with the feature being dimensioned.
8. Dimension lines should be placed in line with the feature being dimensioned.
9. Dimension lines should be placed in line with the feature being dimensioned.
10. Dimension lines should be placed in line with the feature being dimensioned.

## 3D Illustrations

Assist in visualization of the object in lucid manner.

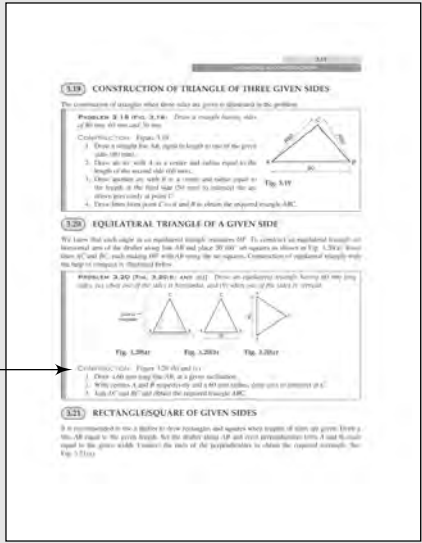


**Problems**

The illustrations are simplified to enable the reader understand the basic concepts in a clear, logical and concise manner easily.

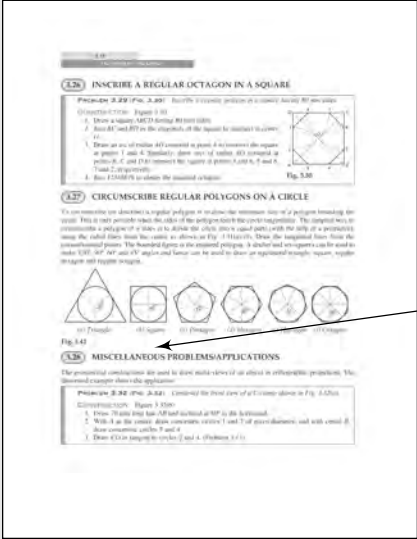
**Construction**

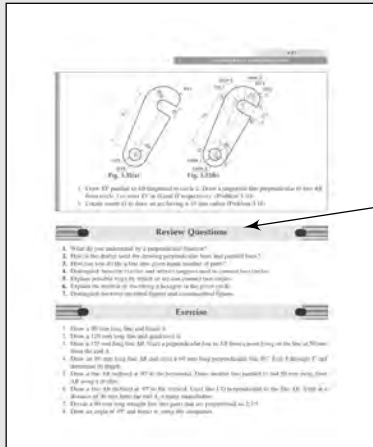
Step by step procedure is given to understand the solved problems.



**Miscellaneous Problems**

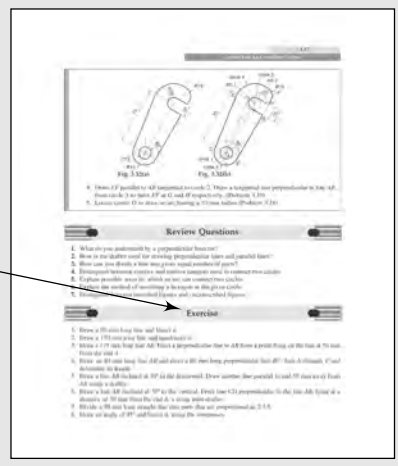
Solutions of some typical problems are given to develop professional level drawing skills.





**Review Questions**  
 Ample number of review questions is compiled at the end of each chapter for viva-voce.

**Exercise**  
 It covers a large number of unsolved problems for practice.



**Multiple Choice Questions**  
 These are added at the end of each chapter for the purpose of competitive examinations.

**CAD**  
 An exclusive chapter on application of CAD software. An attempt is made to present some of the basic commands of the latest version of the popular graphics software "Auto CAD 2007" in a simple way.

