



Faculty of Engineering

Department of Allied Engineering Sciences

Engineering Drawing

Week 2

**Introduction: Tools
and Practicing**

• Introduction to Engineering Drawing

- What is Engineering Drawing?
- Drawing Tools and their uses
- Drawing Scales
- Title Block



Definition of Engineering Drawing

- Engineering Drawing is a type of technical drawing used to clearly define the requirements for engineered items such as views, dimensions and necessary information.
- It is a graphical language that transforms ideas from one mind to another.
- It communicates all needed information from the engineer who designed the part to the worker who will make it.

Drawing Tools and their Uses

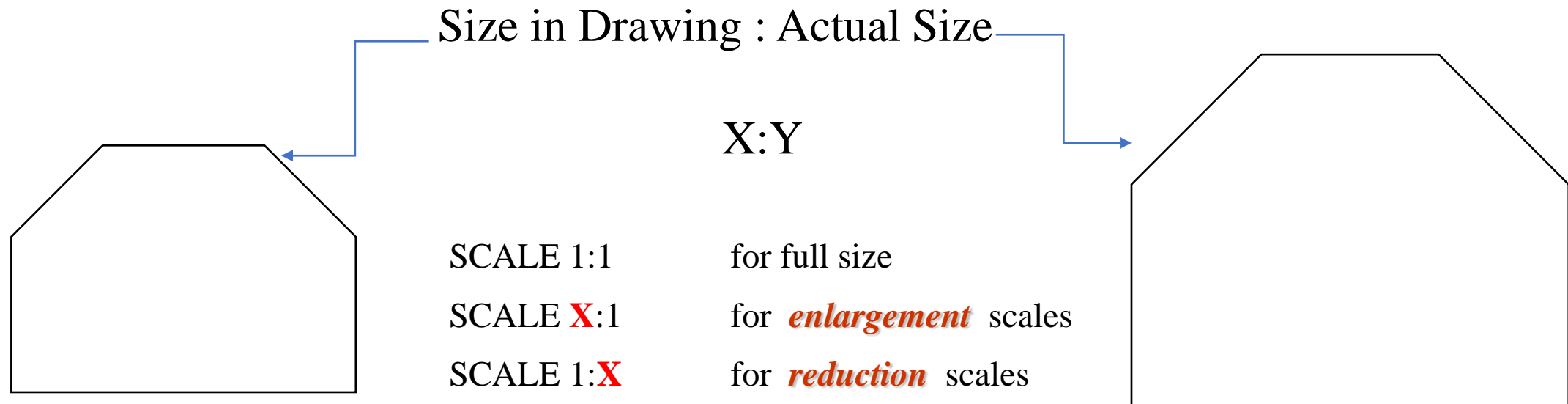
- **Drawing board:** Is a smooth wooden board that is used to keep and support the drawing paper. The drawing board should be kept clean, flat and smooth.
- **Drawing paper:** A3 drawing paper with a margin of 1 cm at all sides.
- **Paper tape:** Used to hold the drawing paper on the drawing board.
- **Pencils:** Used to draw the required objects or shapes. The accuracy of the drawing depends on the quality of the pencils used.
- **T-square:** Usually fitted to the left side of the drawing board and slides along the edge of the board. Used to draw horizontal straight lines.



- **Set squares (triangles):** Triangular-shaped squares with one of the angles is right angle (90 degrees). Two set squares are usually used with 45,45,90 degrees or 30,60,90 degrees. In combination with T-square, set squares are used to draw straight lines at an angle.
- **Scale (ruler):** Used to draw lines at a specific length.
- **Protractor:** Used to draw or measure angles.
- **French curves:** Used to draw curves that can't be drawn using Compass.
- **Compass:** Used to draw circles or arcs at specific distance

Drawing Scales

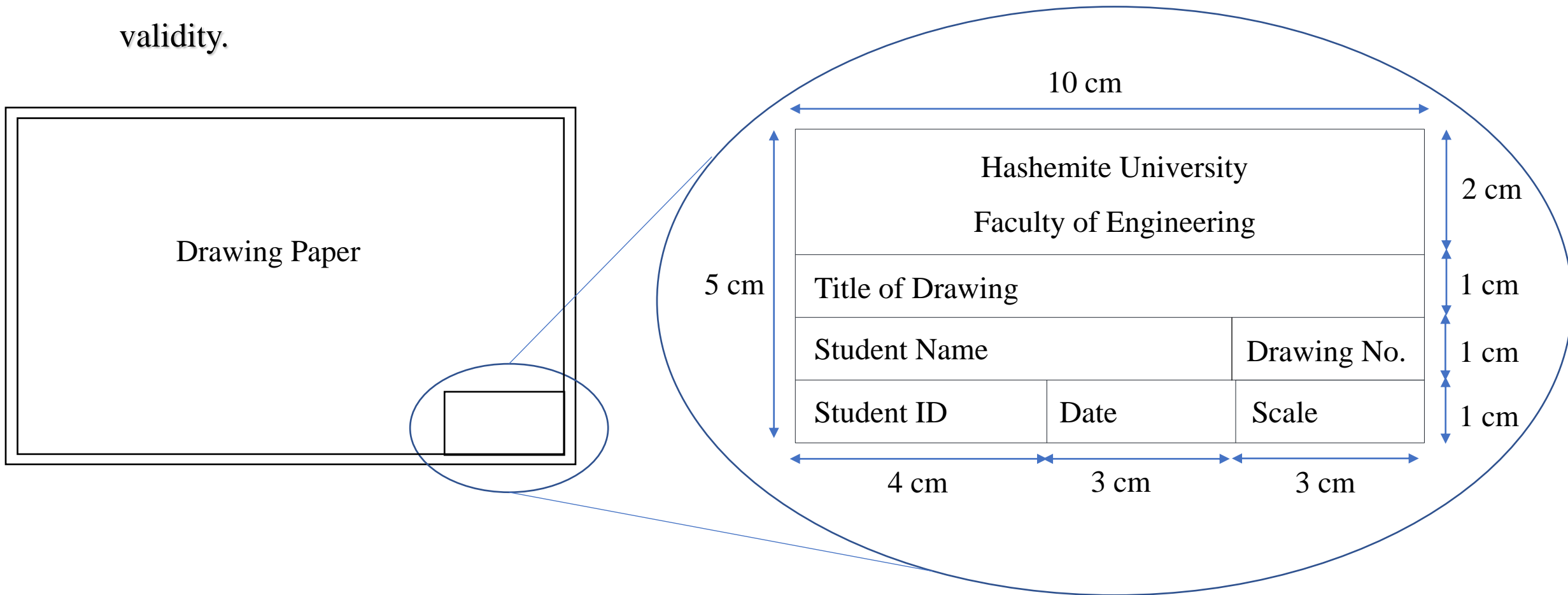
Scale is the ratio of the linear dimension of an element of an object shown in the drawing to the real linear dimension of the same element of the object.



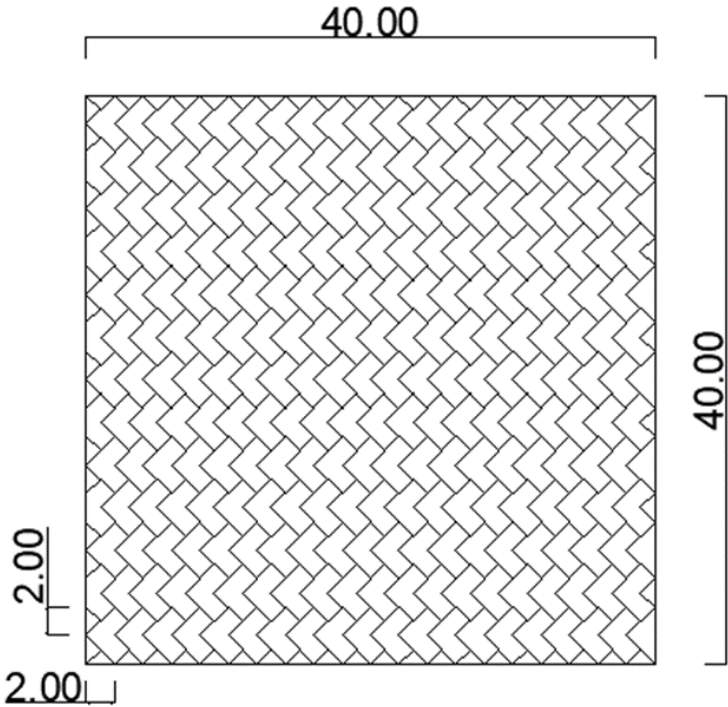
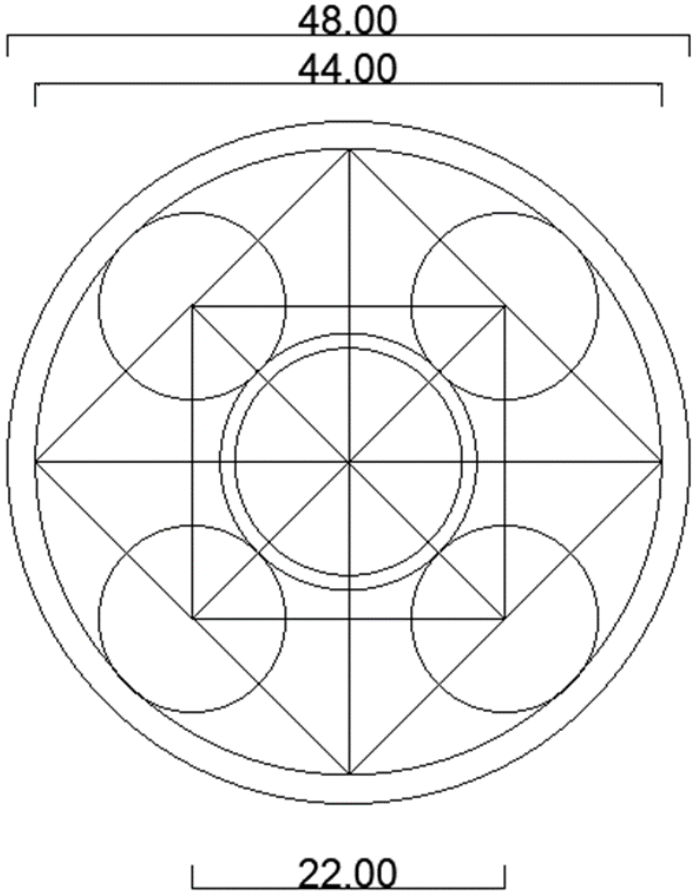
Title Block

Usually located at the bottom right-hand corner of the drawing paper.

Contains all information necessary to identify the drawing and to verify its validity.



Exercises:



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