



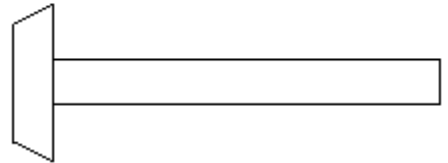
DRAFTING EQUIPMENT, SCALES AND PARTS OF A CIRCLE

The Tools of the Trade

BASIC HAND DRAFTING EQUIPMENT

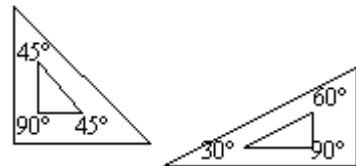
T-square

- Used in drawing horizontal lines.
- Keep head firmly against side of board.
- Head on left edge of board if right-handed.
- Does not need to be 90 degree, but the head must be tight.



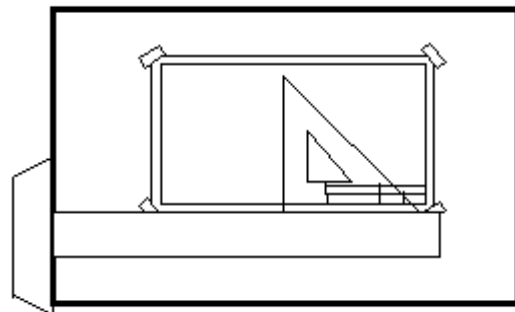
Set Squares

- Used to draw vertical lines and angles.
- 30-60-90 degrees and 45-45-90 degrees.
- Can be used together for angles every 15 deg.



Drawing Board

- Must have a straight edge.

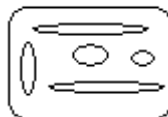


Tape

- Small amount on corners only to hold down.

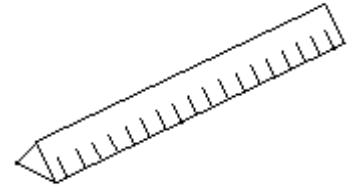
Erasing shield

- Assist erasing of fine detail.



Scale

- For measuring, do not use as a straight edge.



French Curves

- Used to draw curves.
- Do not draw freehand use a French Curve for accuracy.



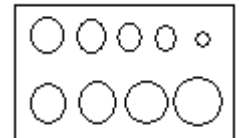
Compass

- Bow compass for most circles.
- Drop compass for very small circles.
- Beam compass for large circles.



Templates

- Circle template - is especially good for small circles.
- Architectural template good for drawing standard shapes (sink, toilet).



SCALES

- **Full Scale / Scale 1:1**

- When objects are drawn at full size.



- **Reduced Scale**

- When large objects, such as a house, are too big to draw full scale they must be reduced.
- Example - if drawing an object half the true size this would be written as Scale: 1:2

- Example - house drawn to a scale of 1:50 (if metric) or 1/4"=1' (if imperial)



- **Enlarged Scale**

- Larger than their actual size.
- Example - watch hands drawn to a scale of 5:1



NOTE: The scale used in a drawing must be specified in the title block.

PARTS OF A CIRCLE

- Diameter (O) = $2 \times$ Radius (R)
- Radius (R) = Diameter (O) / 2
- Circumference (distance around)

