



ME-160

Mechanical Engineering Drawing

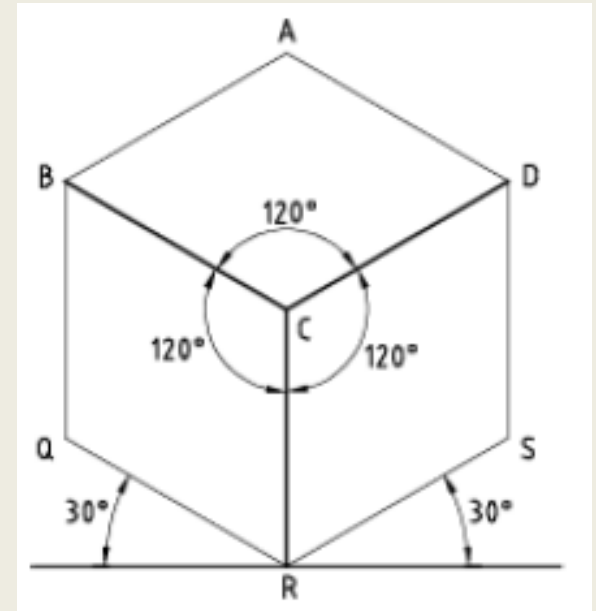
Isometric Views

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Musanna Galib
Md. Rakib Hossain**

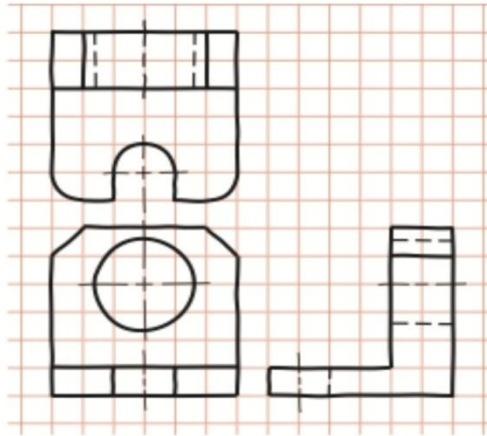
What is Isometric View?

- Isometric view or projection shows **all three dimensions** of an object which are useful to visualize an object.
- There are 3 isometric axes with an angle of **120°** between them.
- Any line drawn parallel to an isometric axis is called isometric line.
- To draw isometric view **true dimensions** are used.



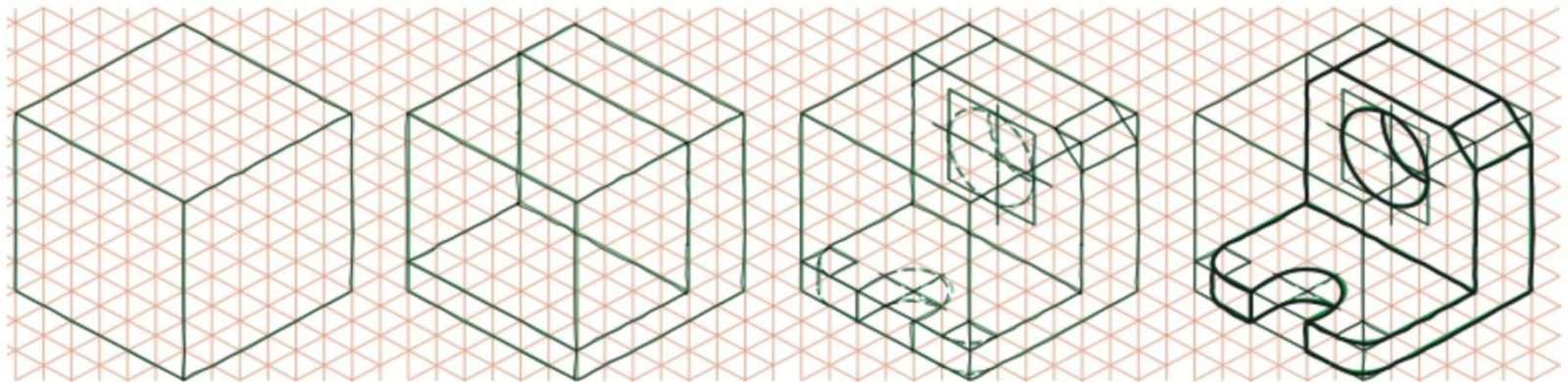
Isometric View: Example

Basic steps for isometric drawing



(A) THE PART

Isometric grid



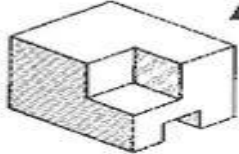
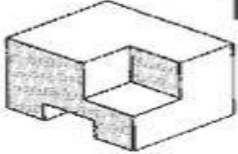
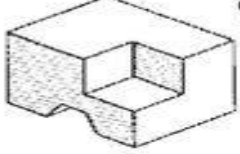
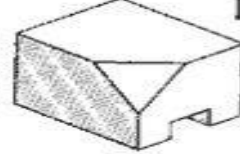
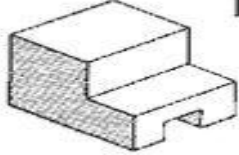
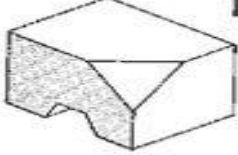
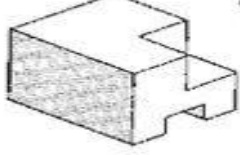
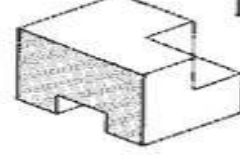
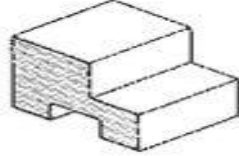
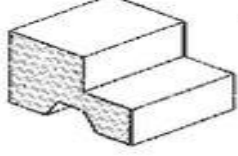
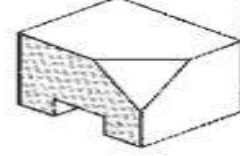
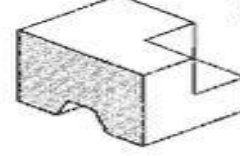
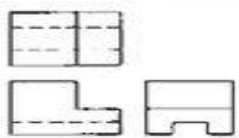
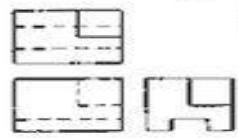
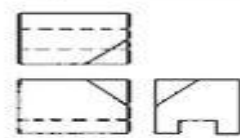
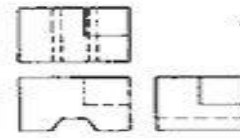
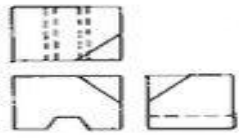
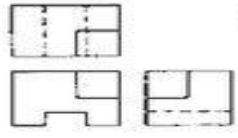
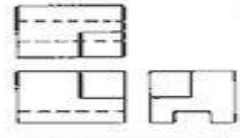
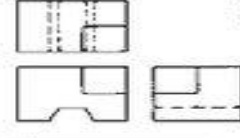
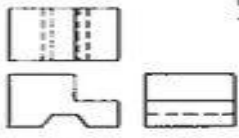
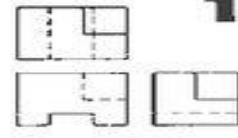
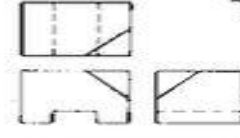
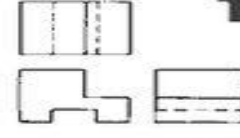
STEP 1
BUILD THE FRAME

STEP 2
BLOCK IN THE DETAILS

STEP 3
ADD THE DETAILS

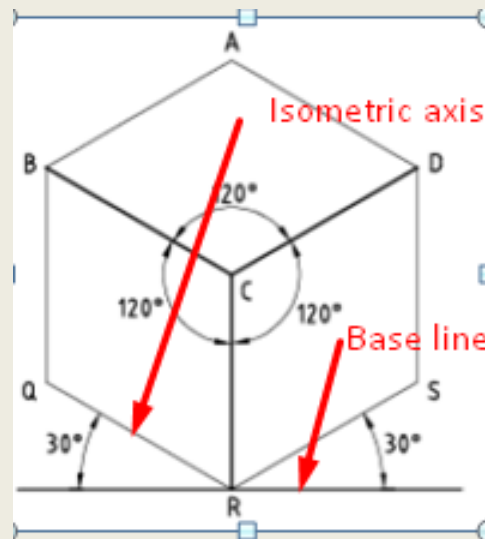
STEP 4
DARKEN THE LINES

Match the correct pair !

 A	 B	 C	 D
 E	 F	 G	 H
 I	 J	 K	 L
 1	 2	 3	 4
 5	 6	 7	 8
 9	 10	 11	 12

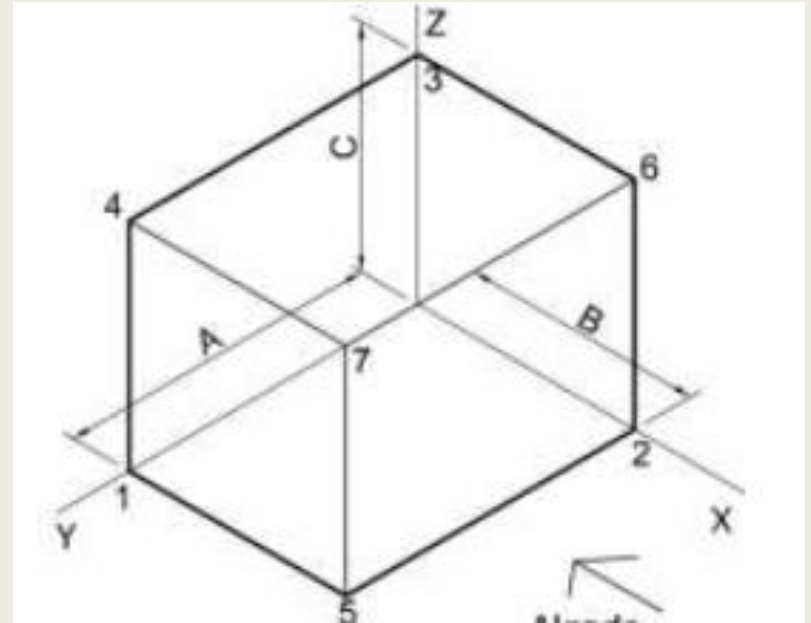
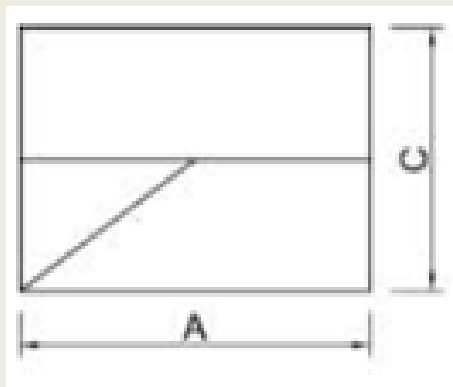
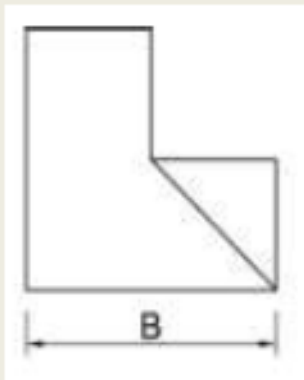
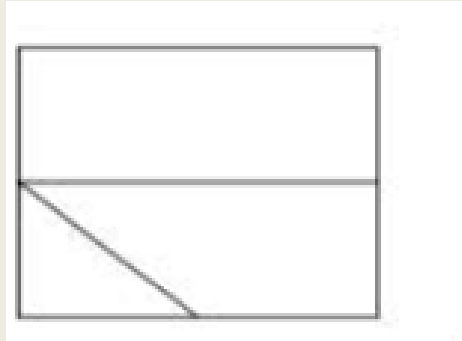
How to draw :

- **Box Method:** A rectangular or square box of suitable size is used to enclose the object in such a way that **some of the corners or edges touch the box sides**.
- Draw a line **30°** with the base line which is called isometric axis



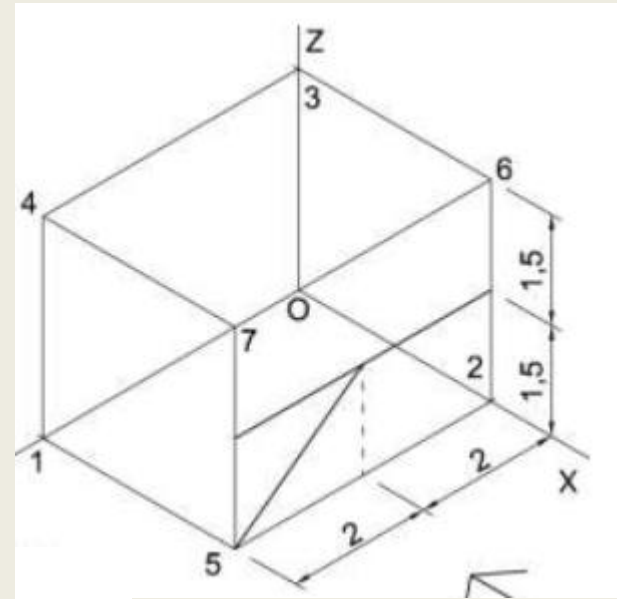
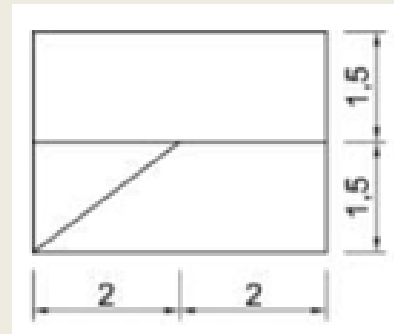
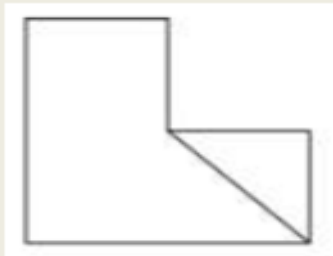
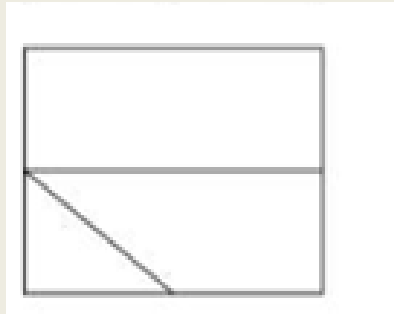
How to draw :

Step 1



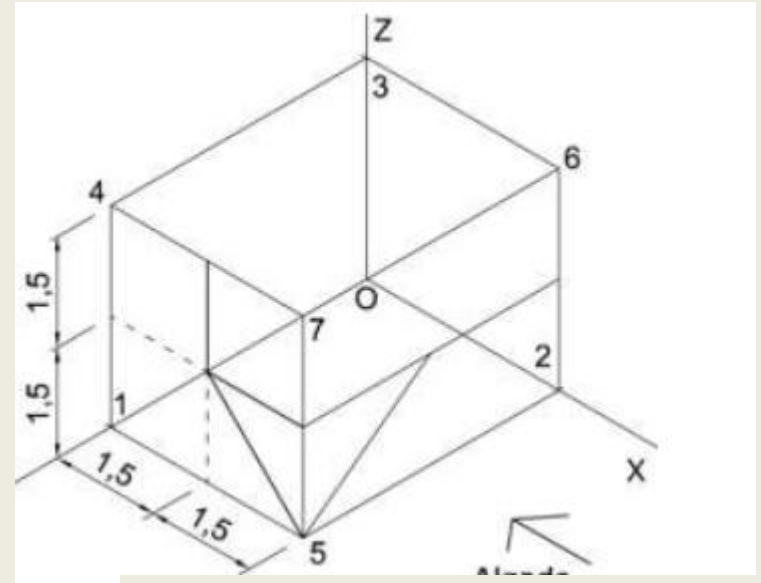
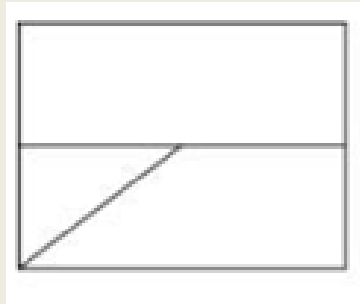
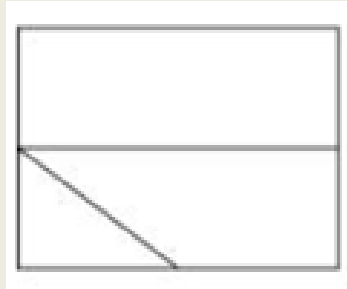
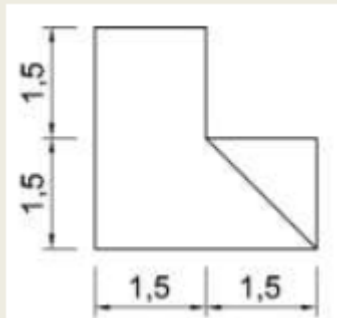
How to draw :

Step 2



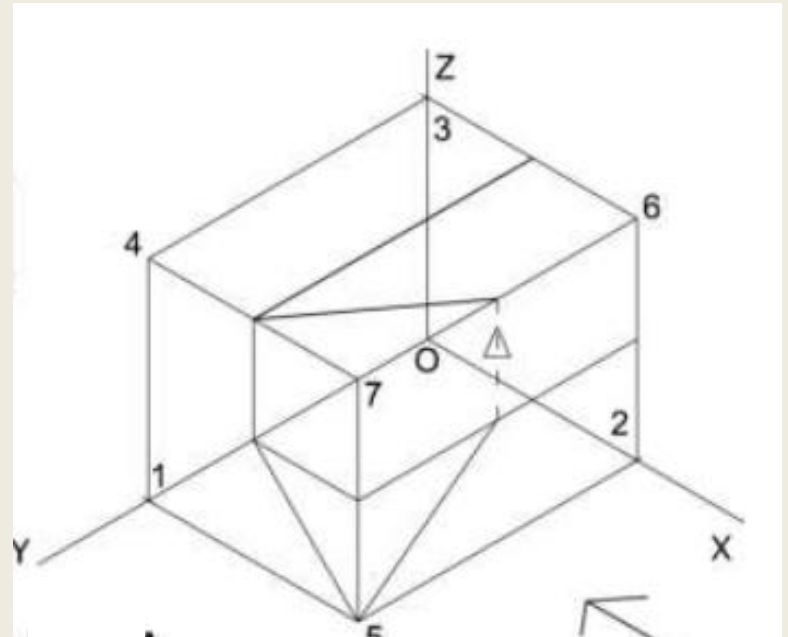
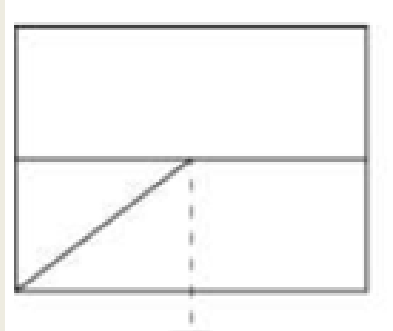
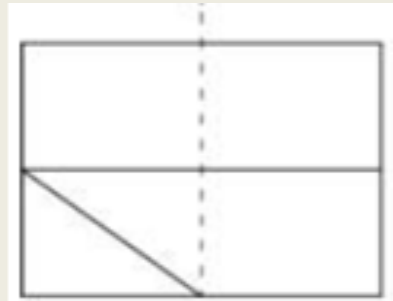
How to draw :

Step 3



How to draw :

Step 4



Lines

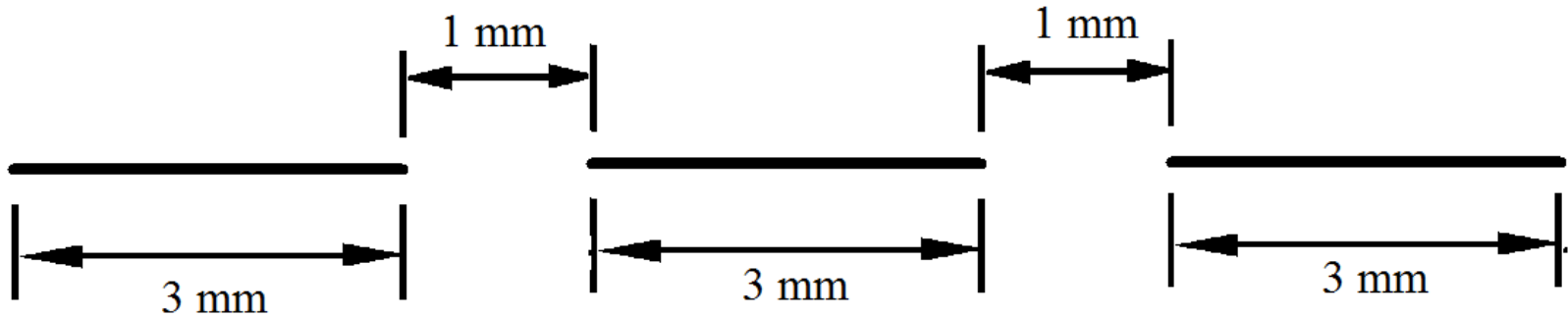
- Object Line : 100% thick
- Hidden Line: 50% thick
- Dimension, Extension Line: 25% thick
- Center Line : 50% thick
- Cutting Plane Line : 125% thick
- Hatchet line :25% thick

Object Line

Thickness: 100 %

Hidden Line

Thickness: 50 %



Center Line

Thickness: 50 %

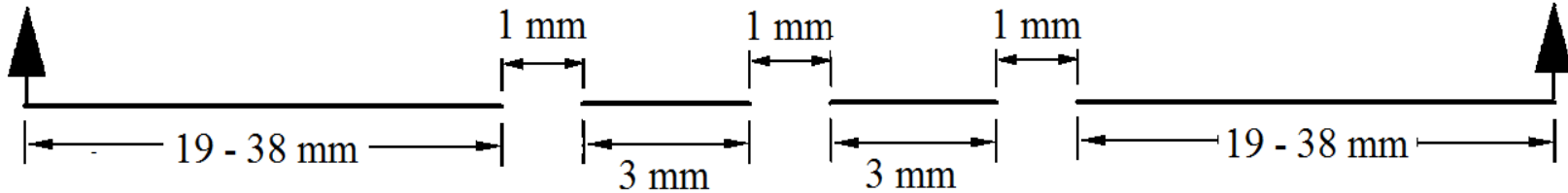
Dimension and
Extension Lines

Light
3.000

Thickness: 25 %

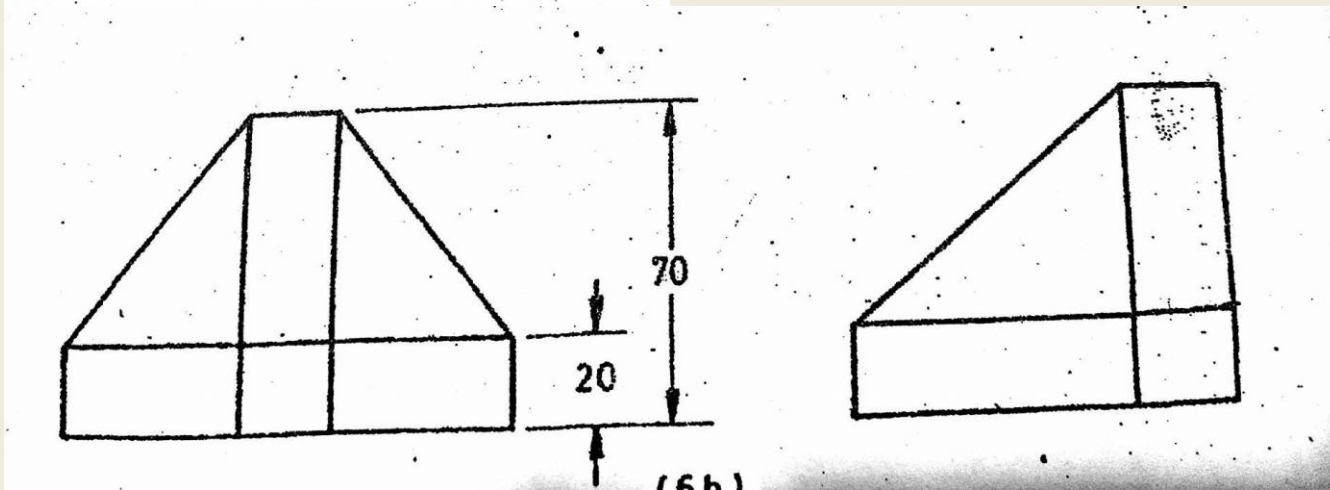
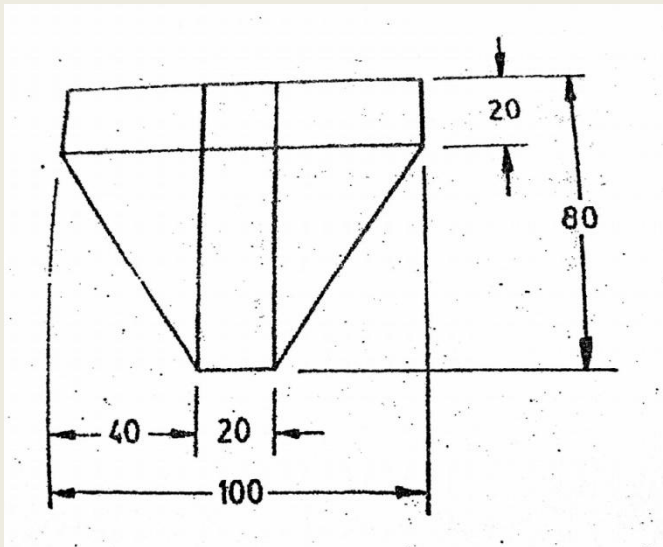
Thickness: 125 %

Section Line

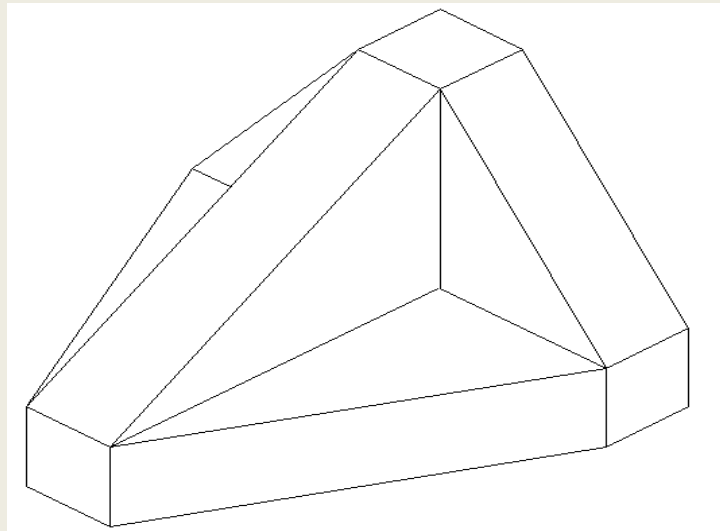
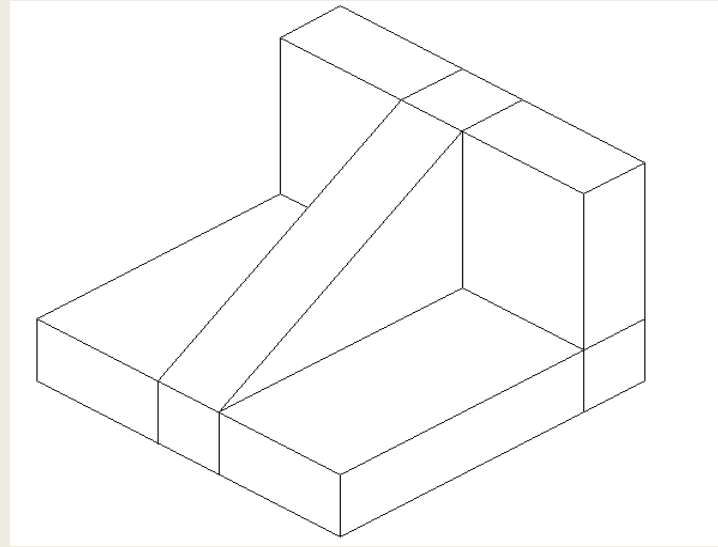
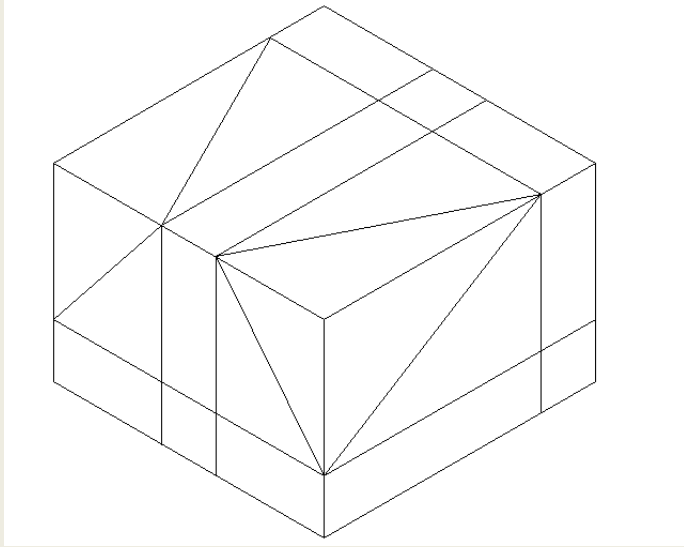


N.B.: All Percentages are with respect to the object line

First Problem



First Problem



Persist Until Succeed !!!