

Gambar Desain

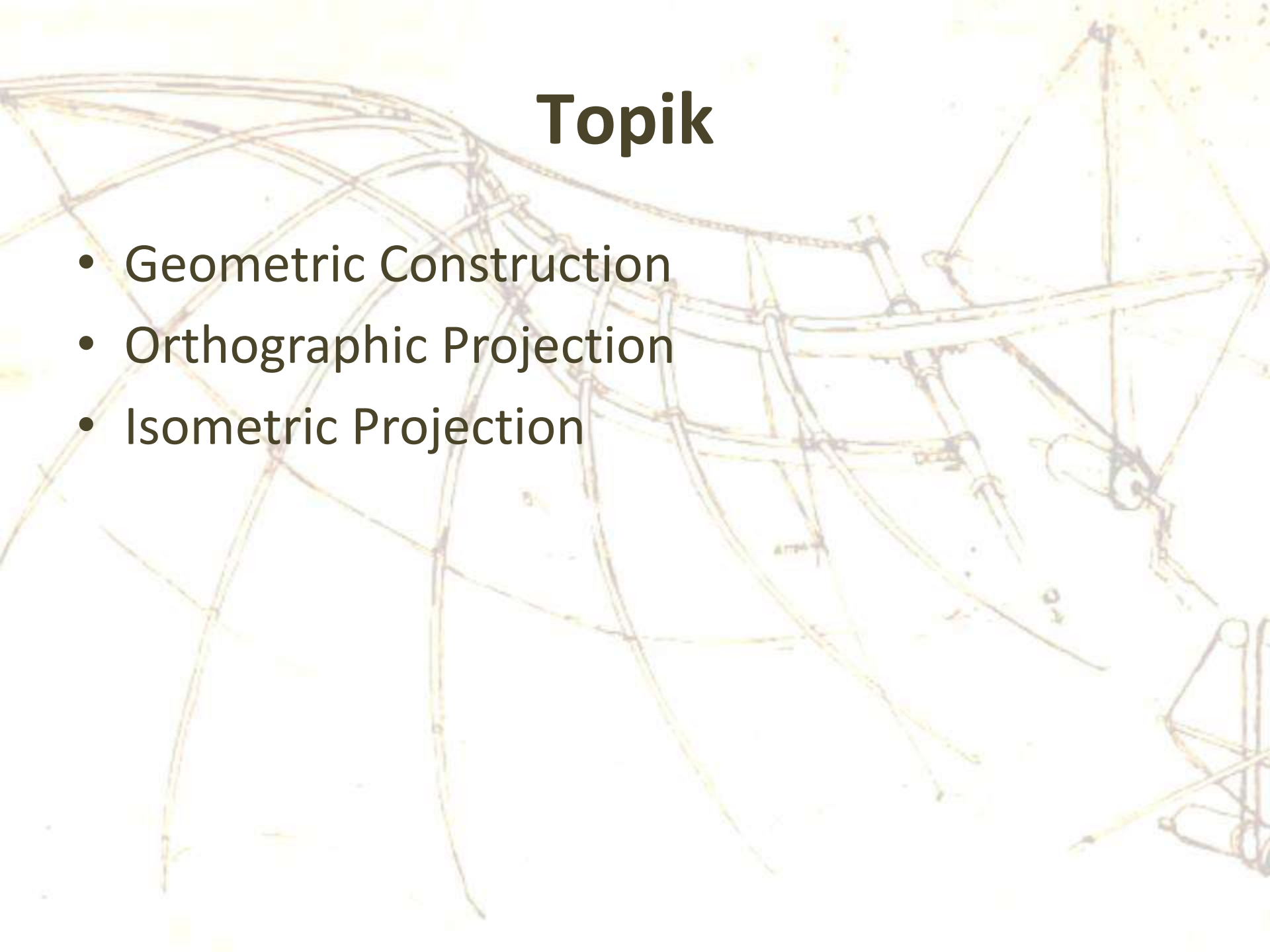
**Desi Dwi Kristanto, M.Ds.
drs. Samodro, M.Hum.**

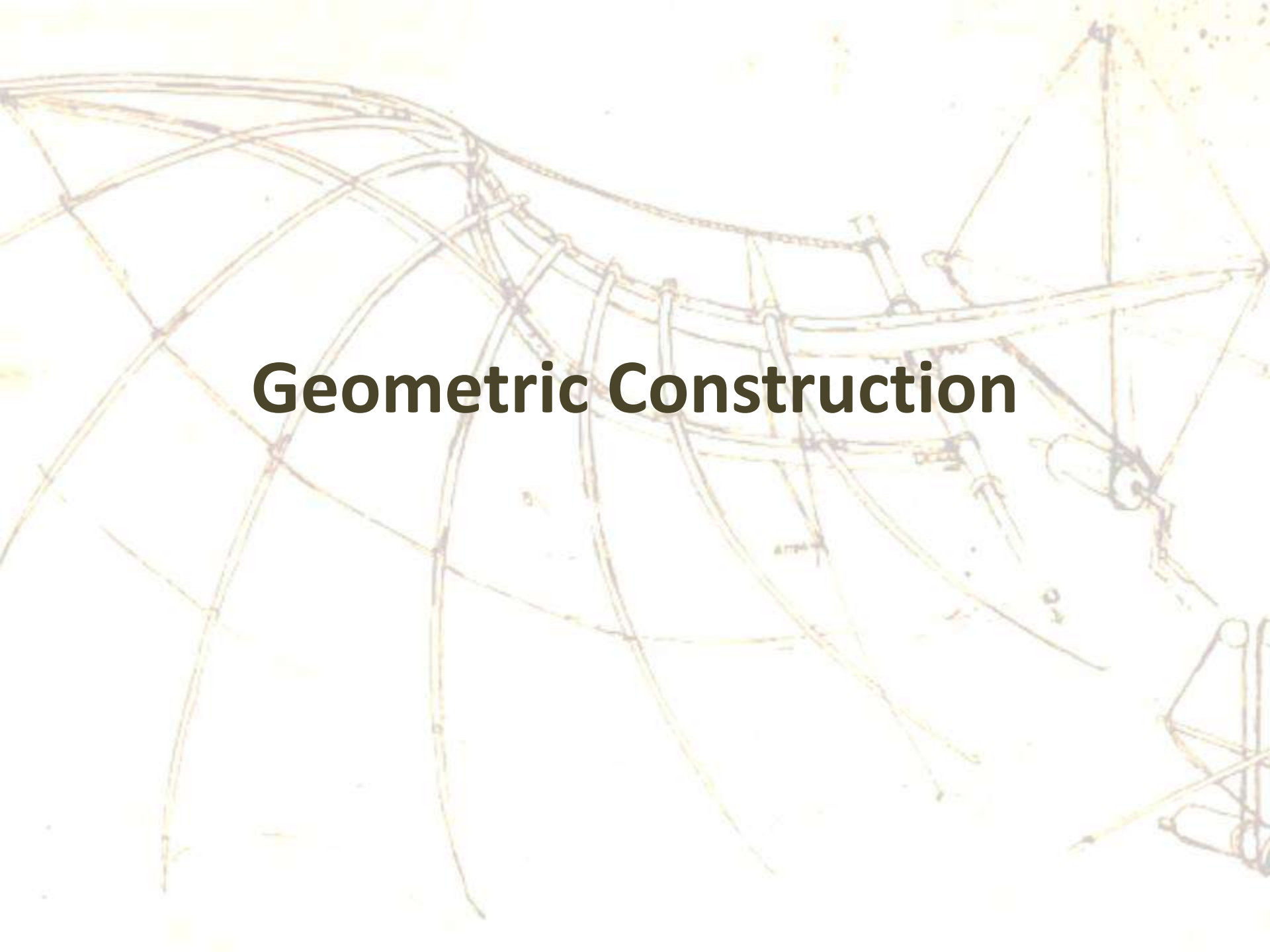


Desain Komunikasi Visual
Universitas Pembangunan Jaya

Topik

- Geometric Construction
- Orthographic Projection
- Isometric Projection



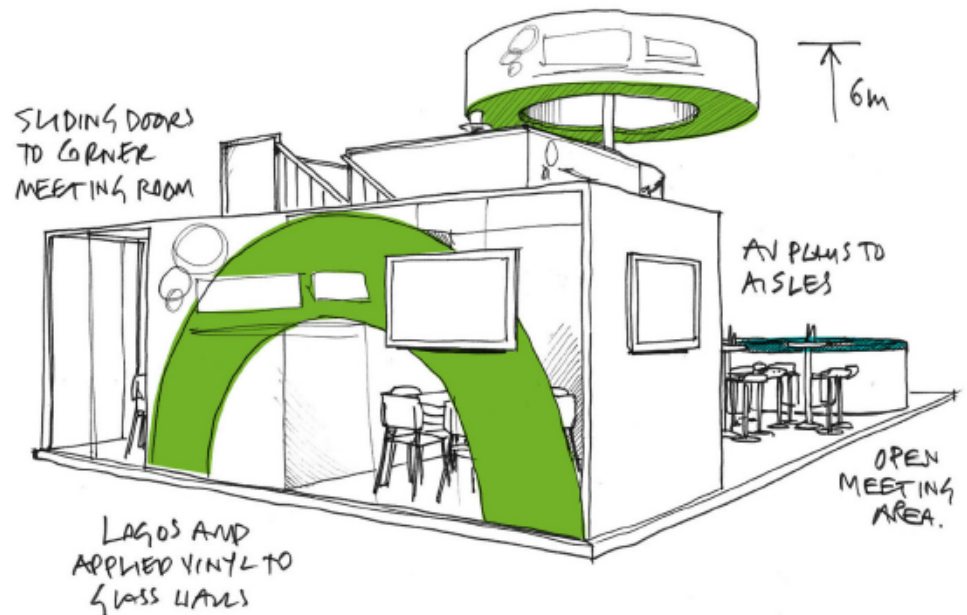
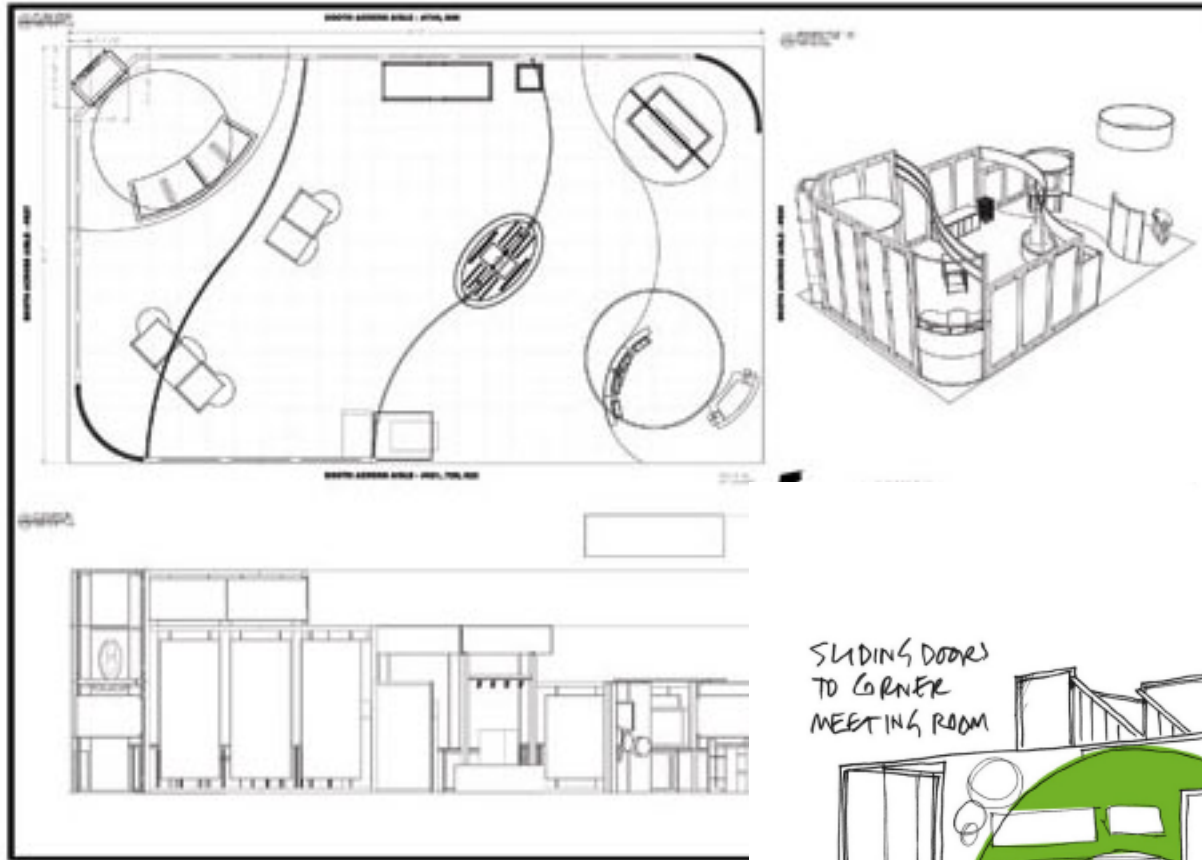
A complex geometric construction drawing, likely a technical sketch for a mechanical or architectural design. It features a series of intersecting lines, curves, and arcs, suggesting a process of geometric construction or a structural analysis. The drawing is rendered in a light, sketchy style with various shades of brown and yellow. The central text "Geometric Construction" is overlaid on the drawing.

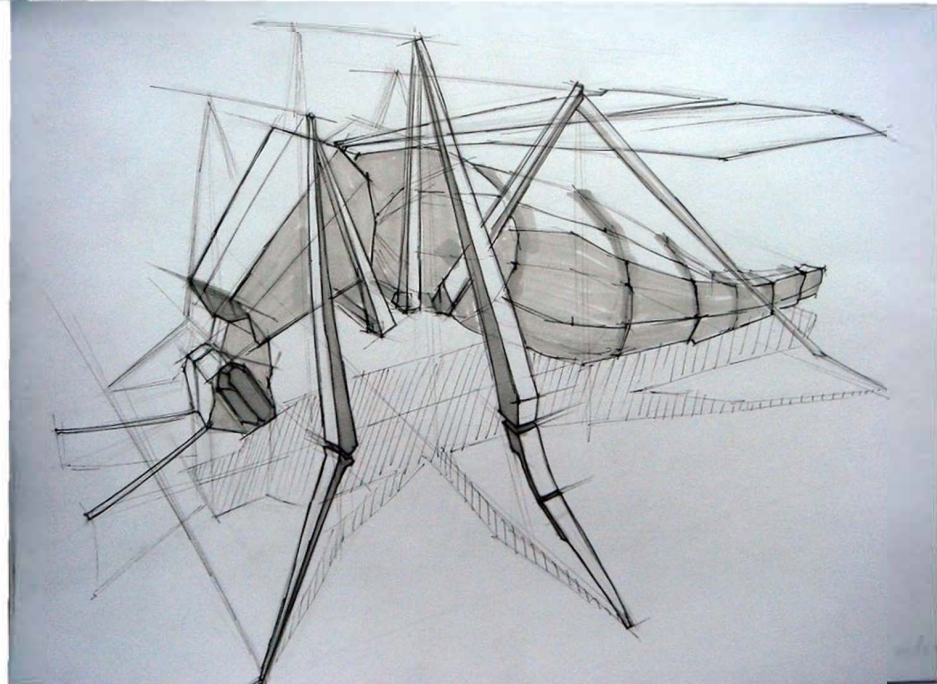
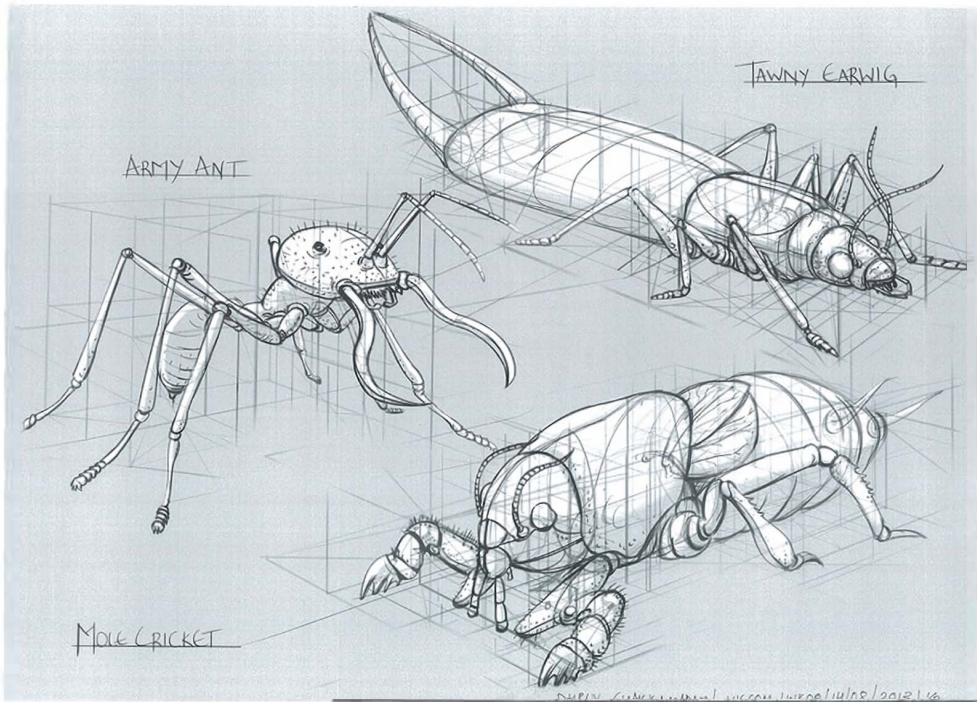
Geometric Construction

Geometric Construction

- Konstruksi bentuk sederhana sebagai dasar untuk membuat gambar bentuk yang lebih kompleks

Contoh Gambar Konstruk

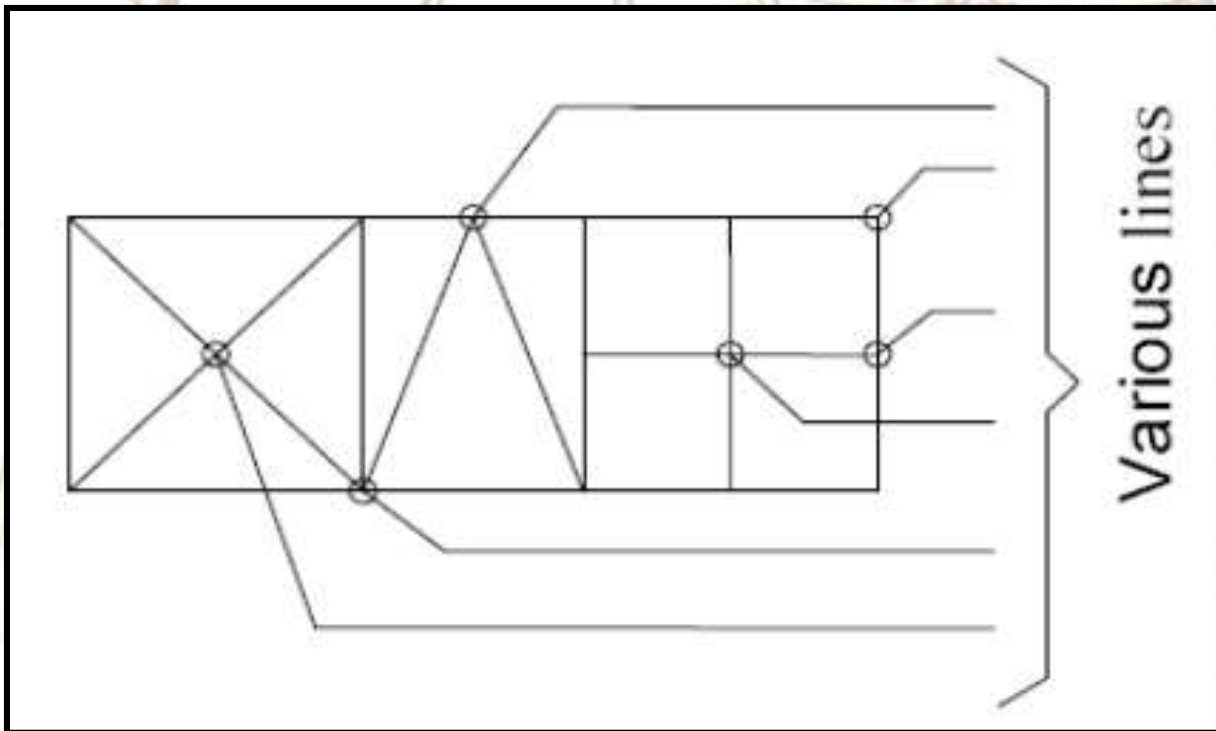




Geometric Construction

a. Point :

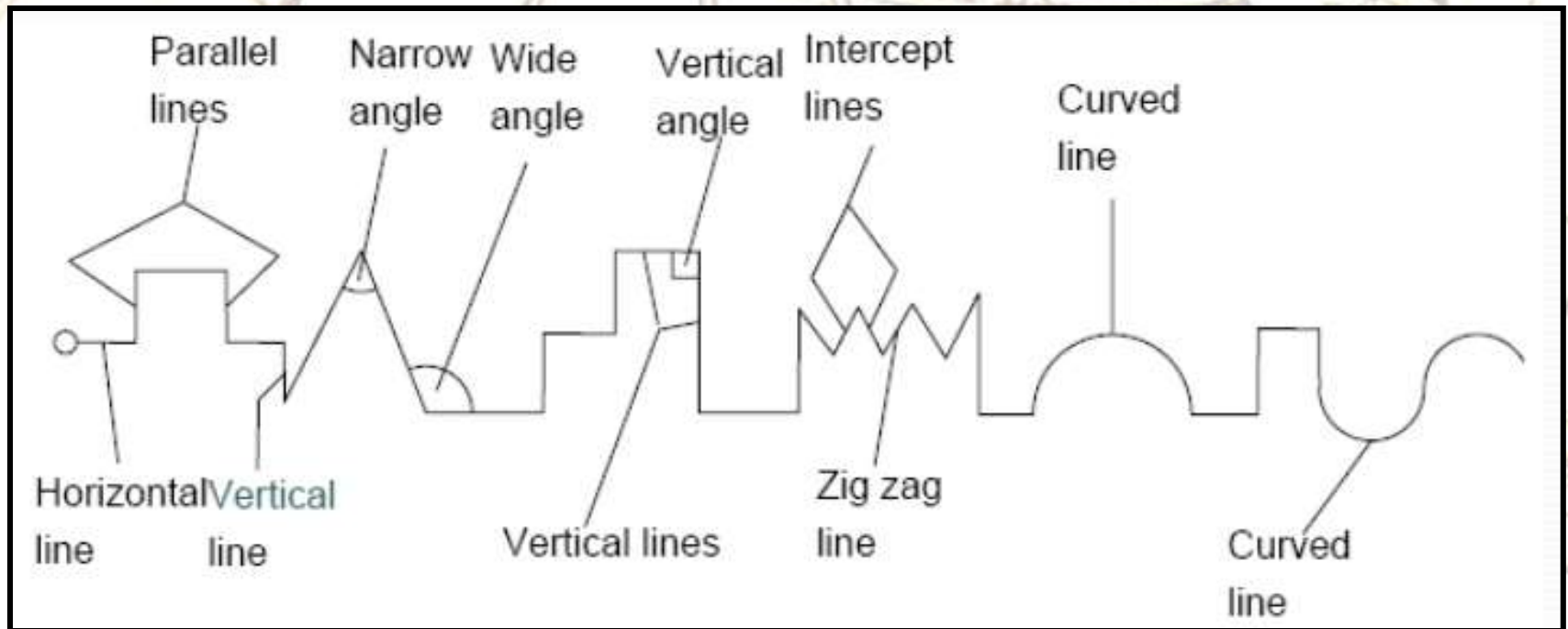
- Non dimensional geometrical element.
- Occurred by interception of various lines.



Geometric Construction

b. Line :

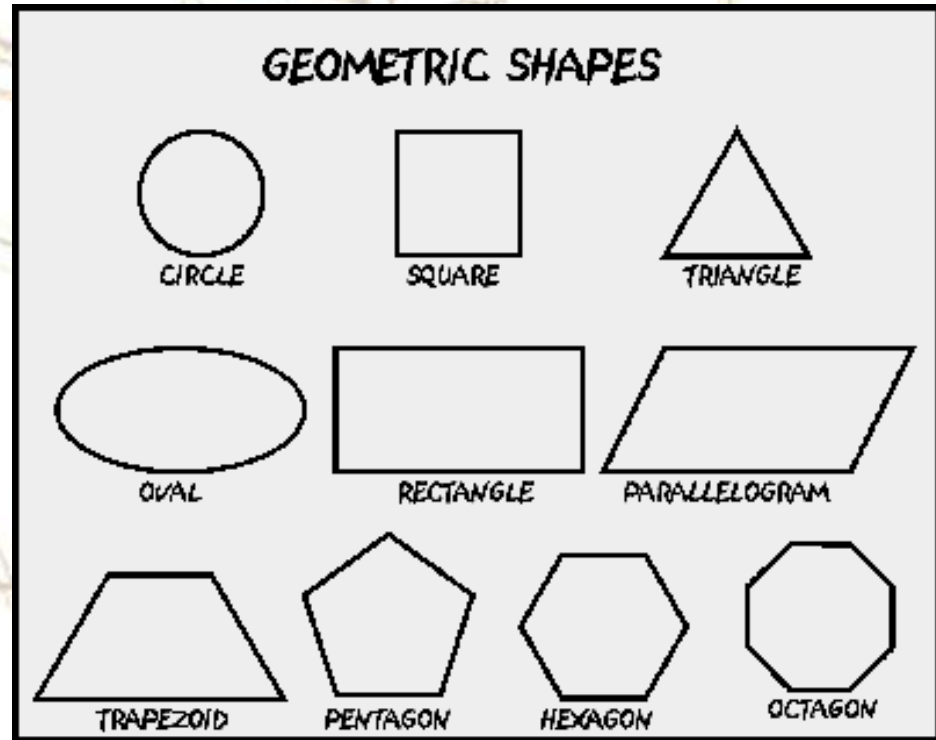
One dimension geometrical element occurred by moving of a point in various direction.



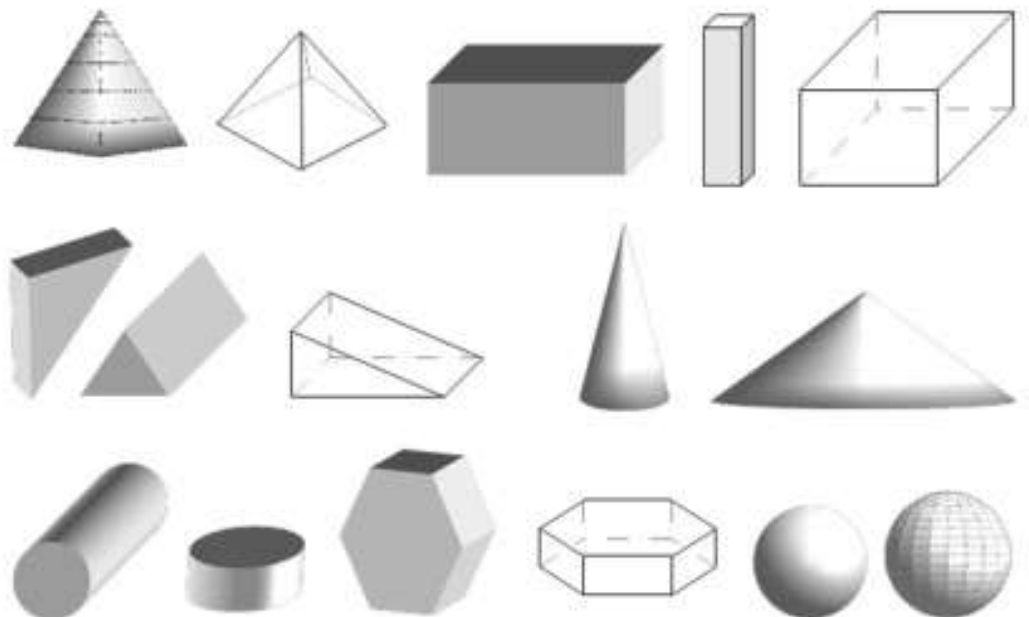
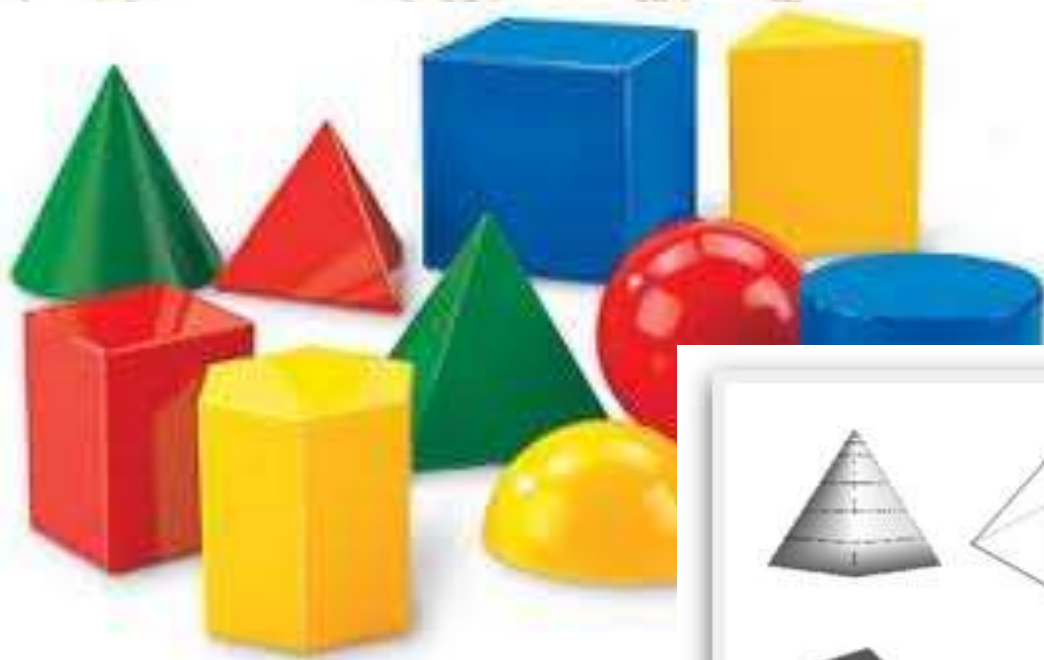
Geometric Construction

c. Plane:

- Occurred by at least three points or connection of one point and one line.
- A plane is always 2D
- When the number of element forming a plane increases, shape and name will change.



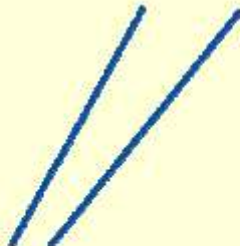
Geometric Construction



Relationship of One Line to Another Line or Arc



Parallel Line Condition



Nonparallel Line Condition



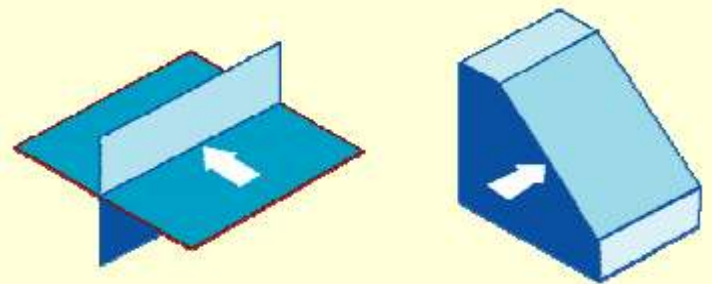
Perpendicular Line Condition



Intersecting Lines

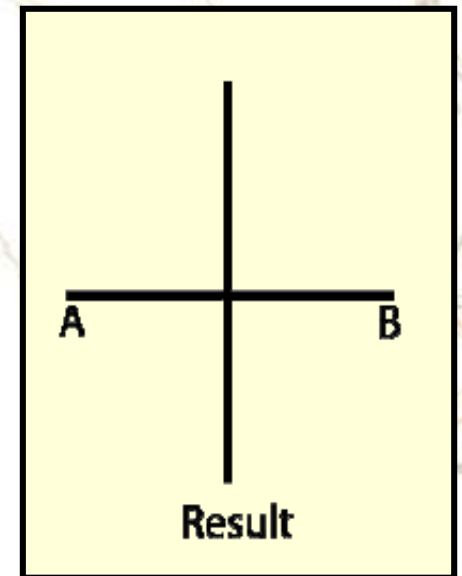
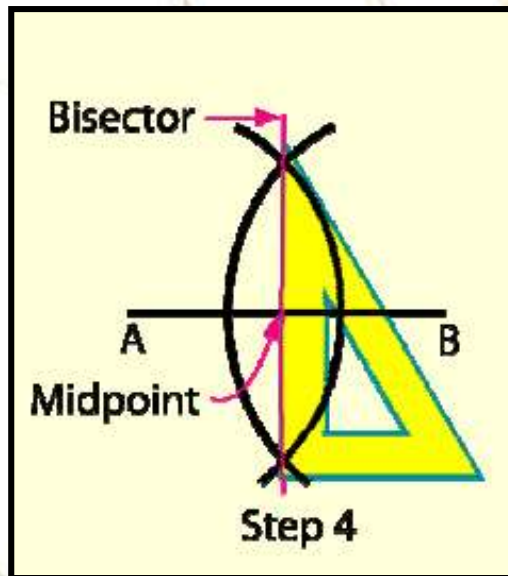
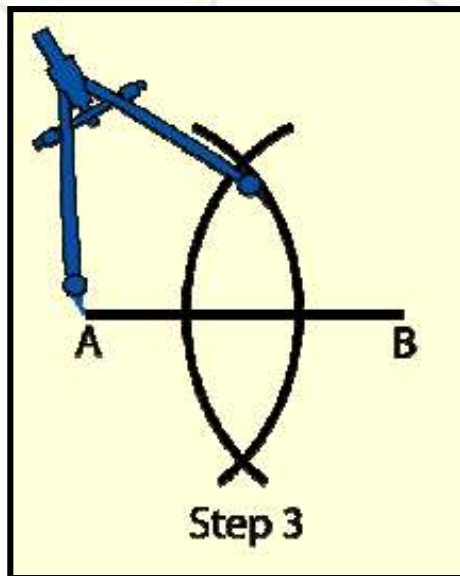
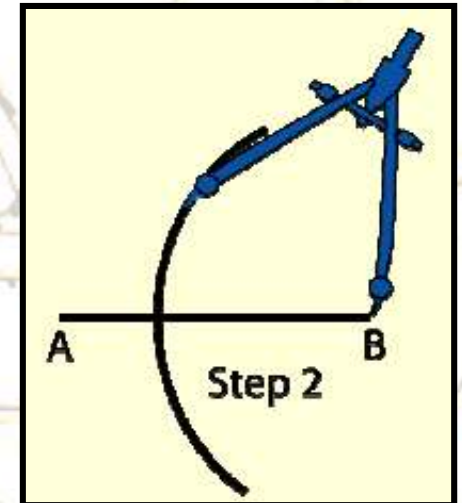
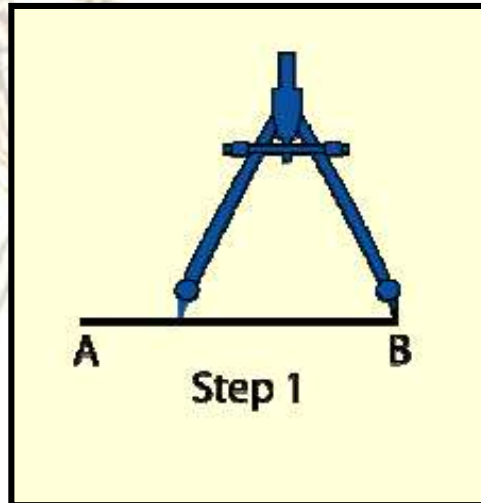
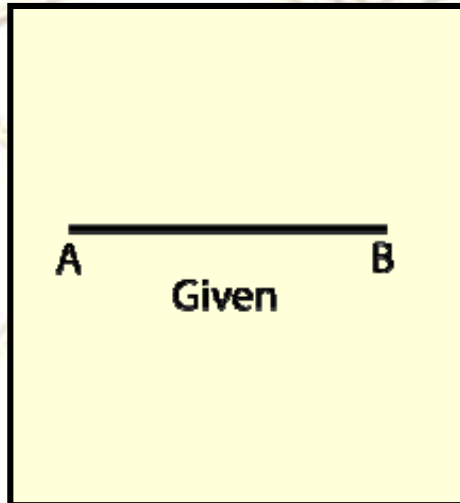


Tangent Condition

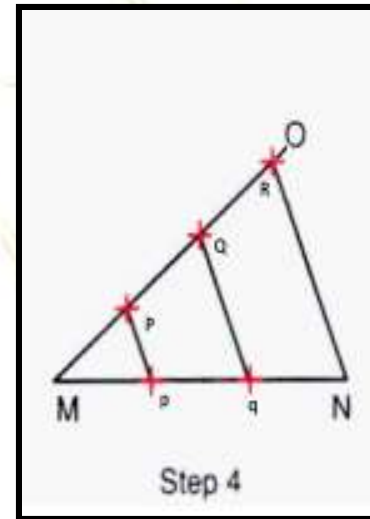
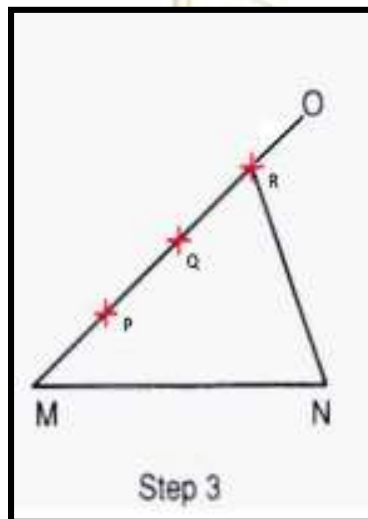
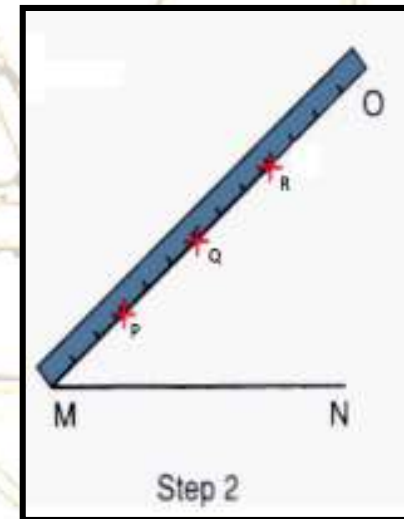
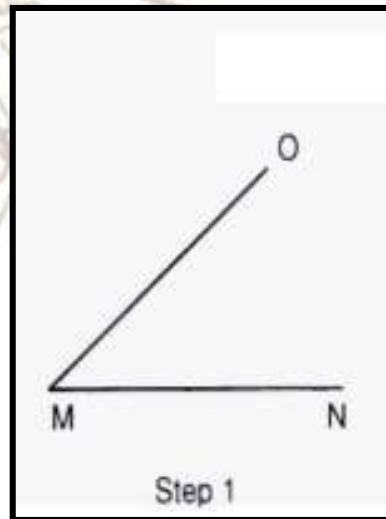
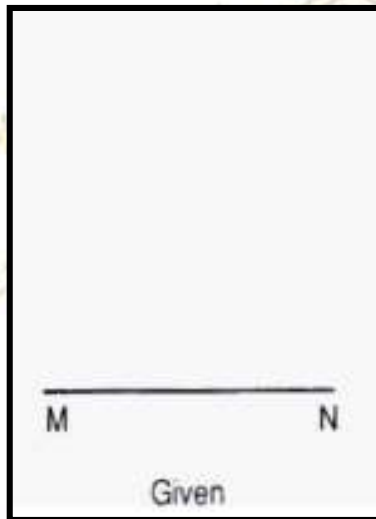


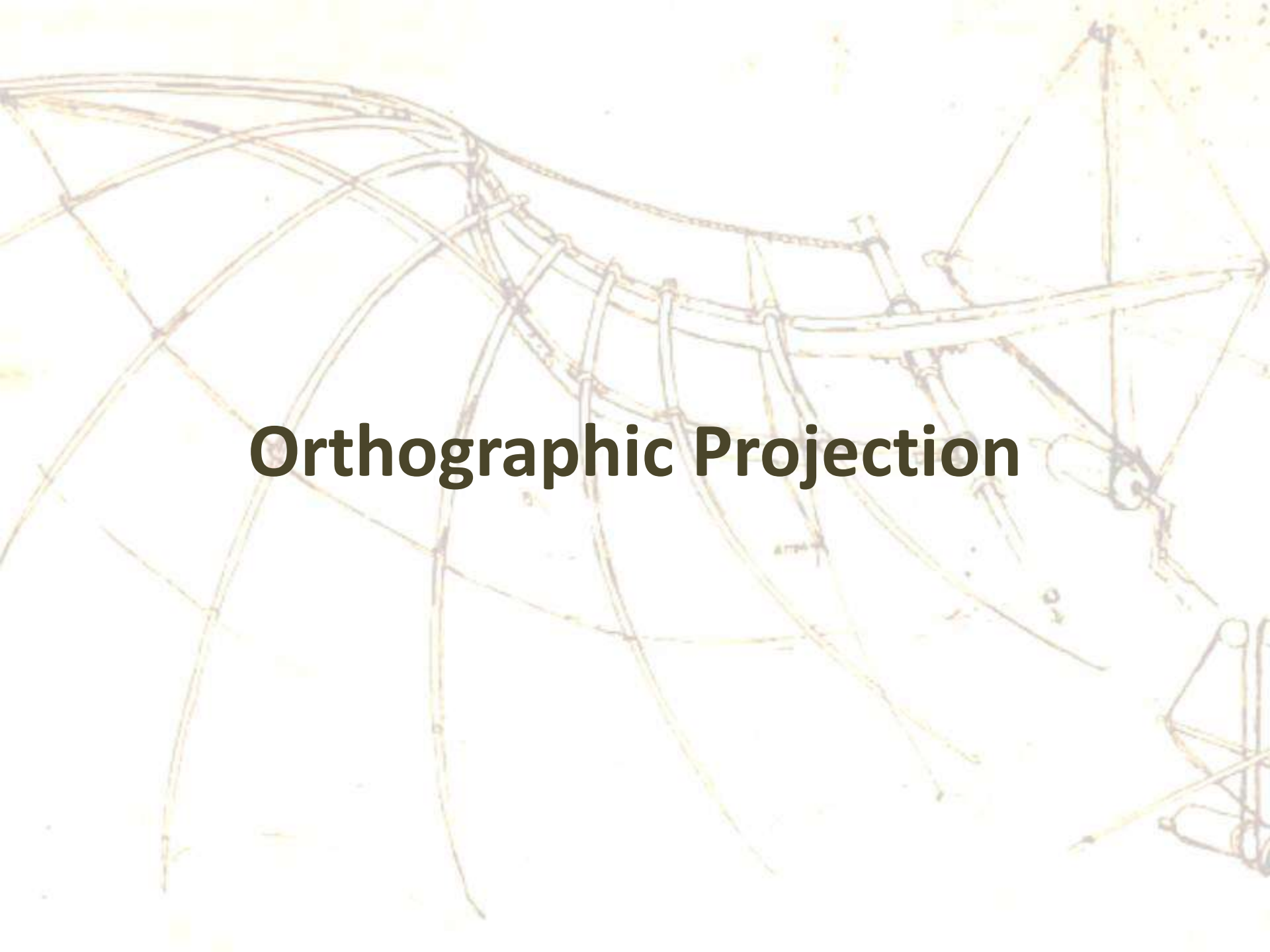
Line at the Intersection of Two Planes (Edge)

Bisecting a Line



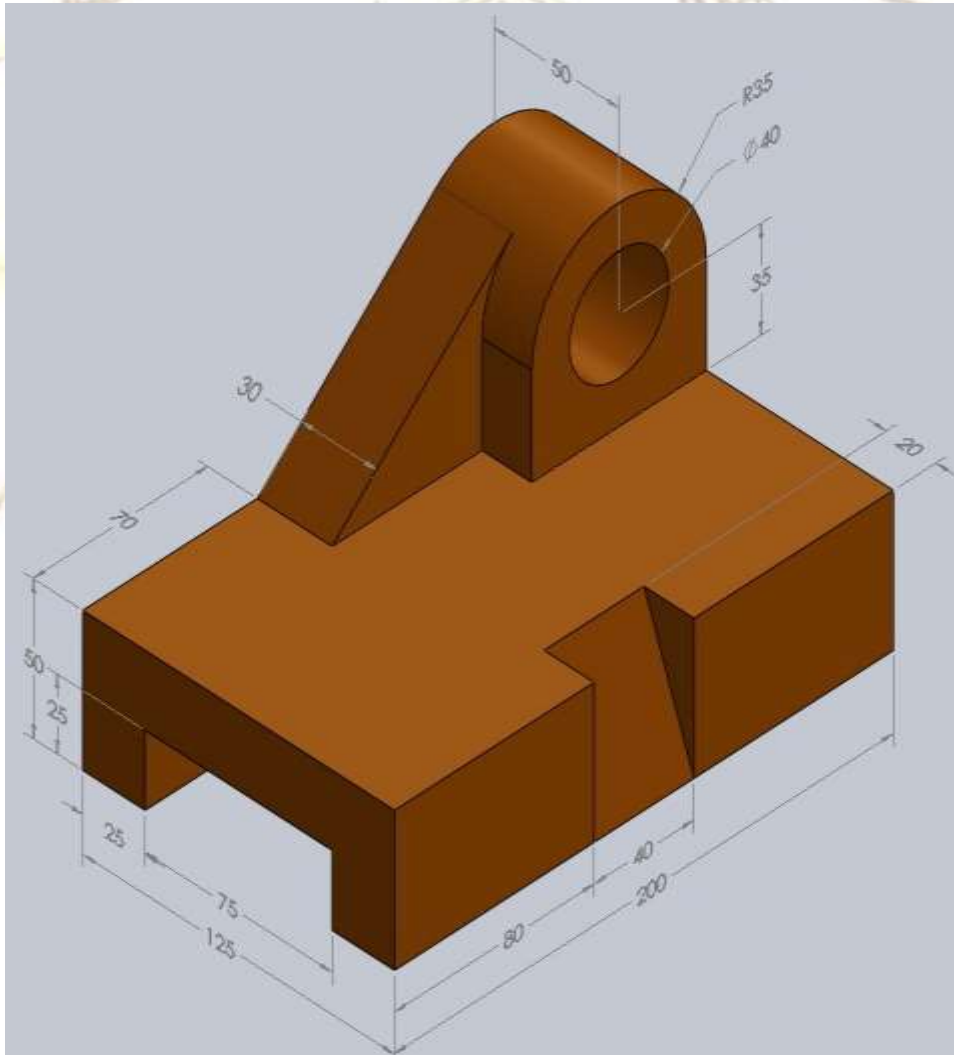
Dividing a Line into Equal Parts



A technical drawing in the style of a pencil sketch, showing a complex mechanical structure. The drawing features several curved lines representing arcs or paths, intersected by straight lines that form a grid-like pattern. Some lines are thicker than others, suggesting different components or levels of detail. The overall impression is that of a preliminary design or a study for a more formal engineering drawing. The text "Orthographic Projection" is superimposed over the center of the drawing.

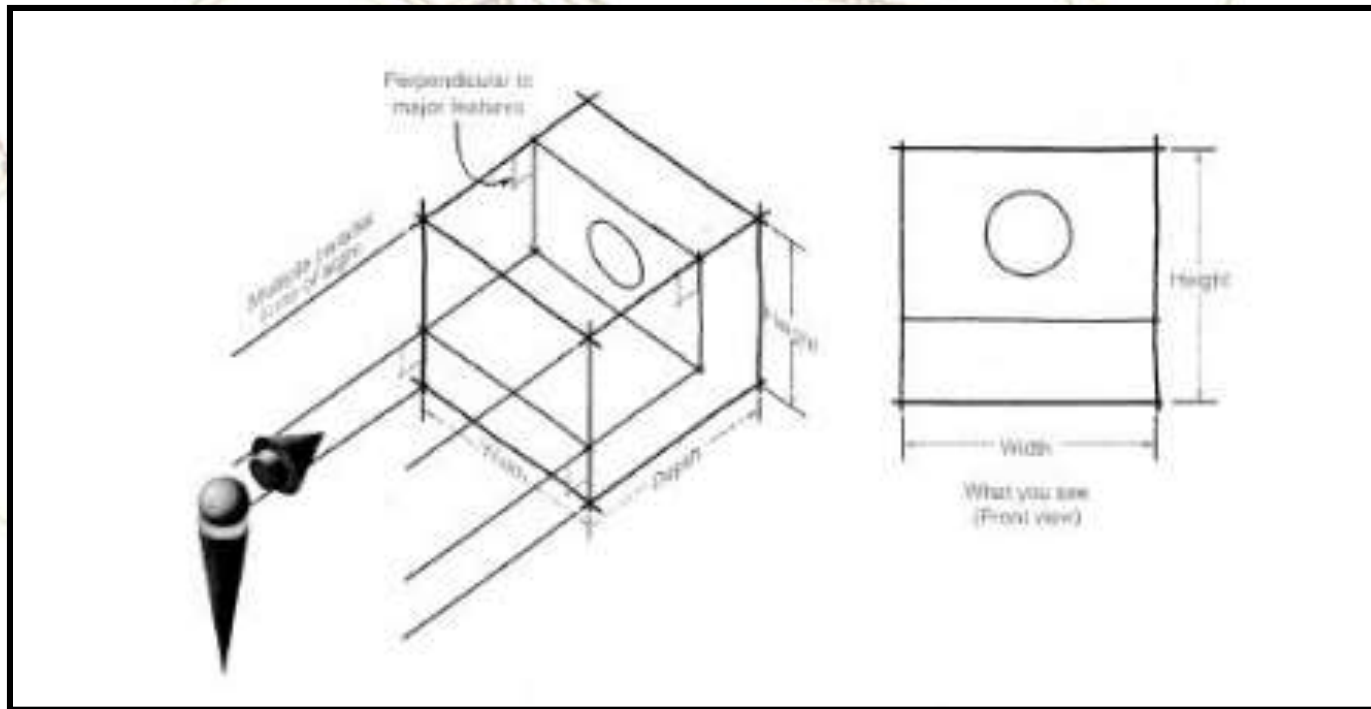
Orthographic Projection

Orthographic Projection



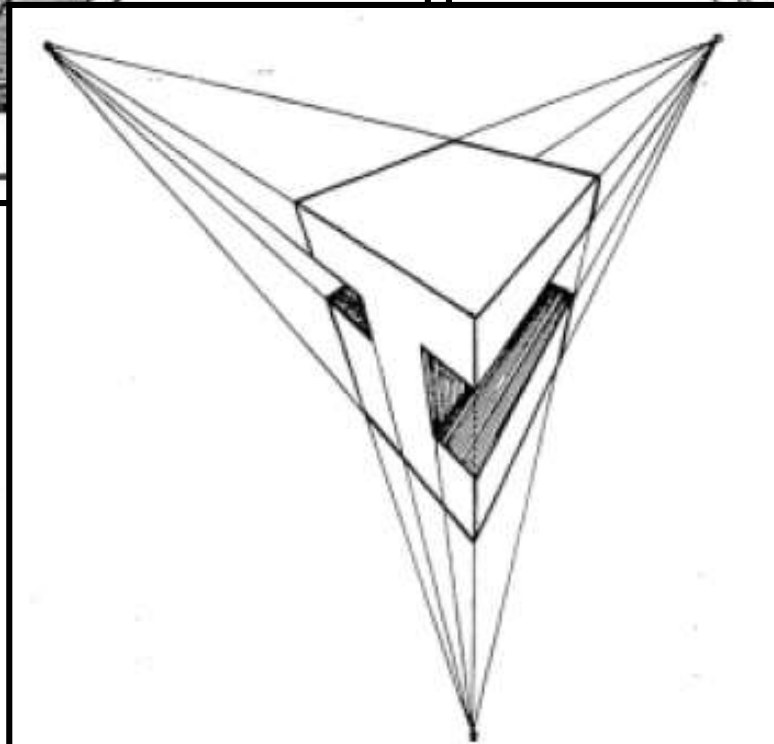
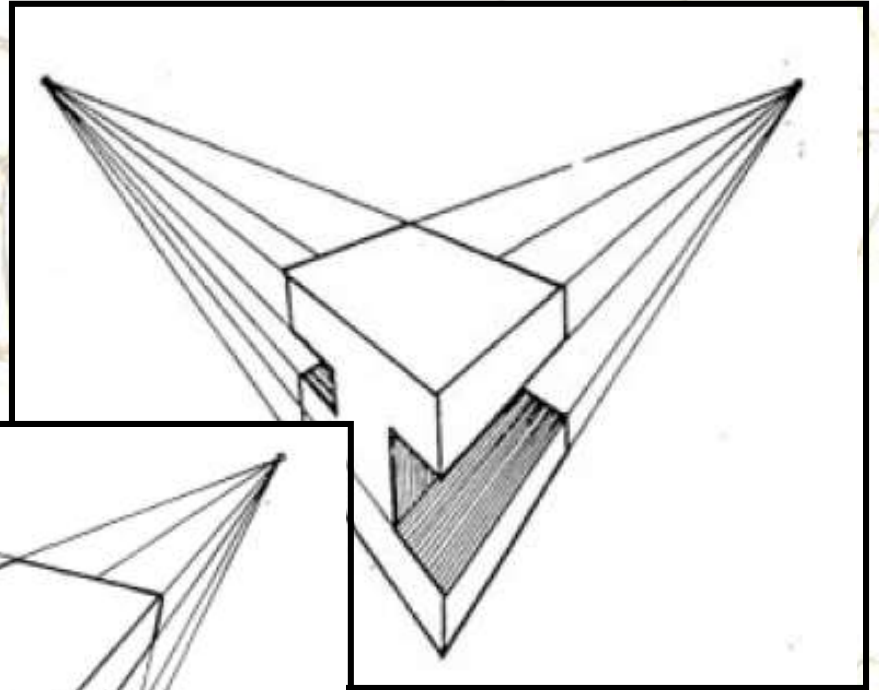
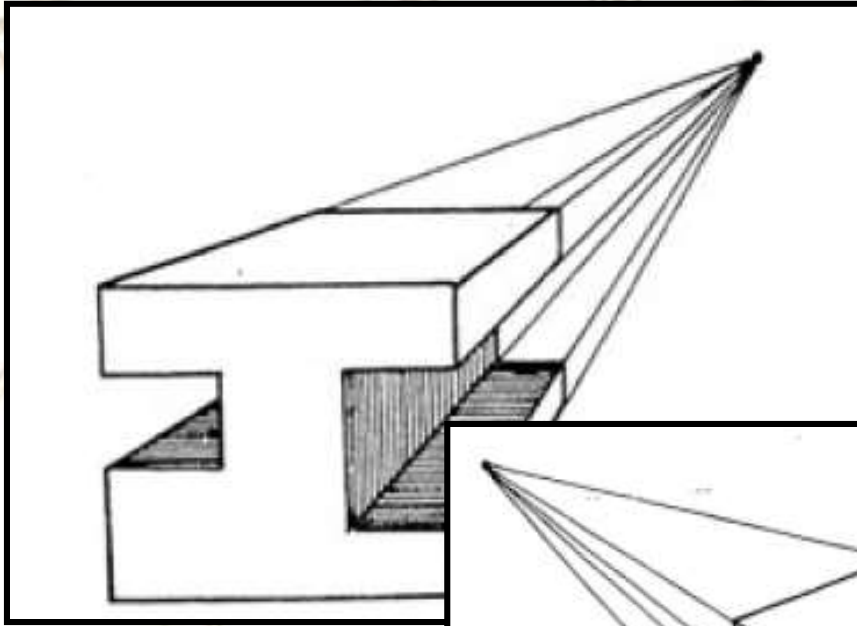
- Reference:
Technical Graphics
- Advantage—
Represent features
of an object more
accurately
- Example problem

Orthographic Projection



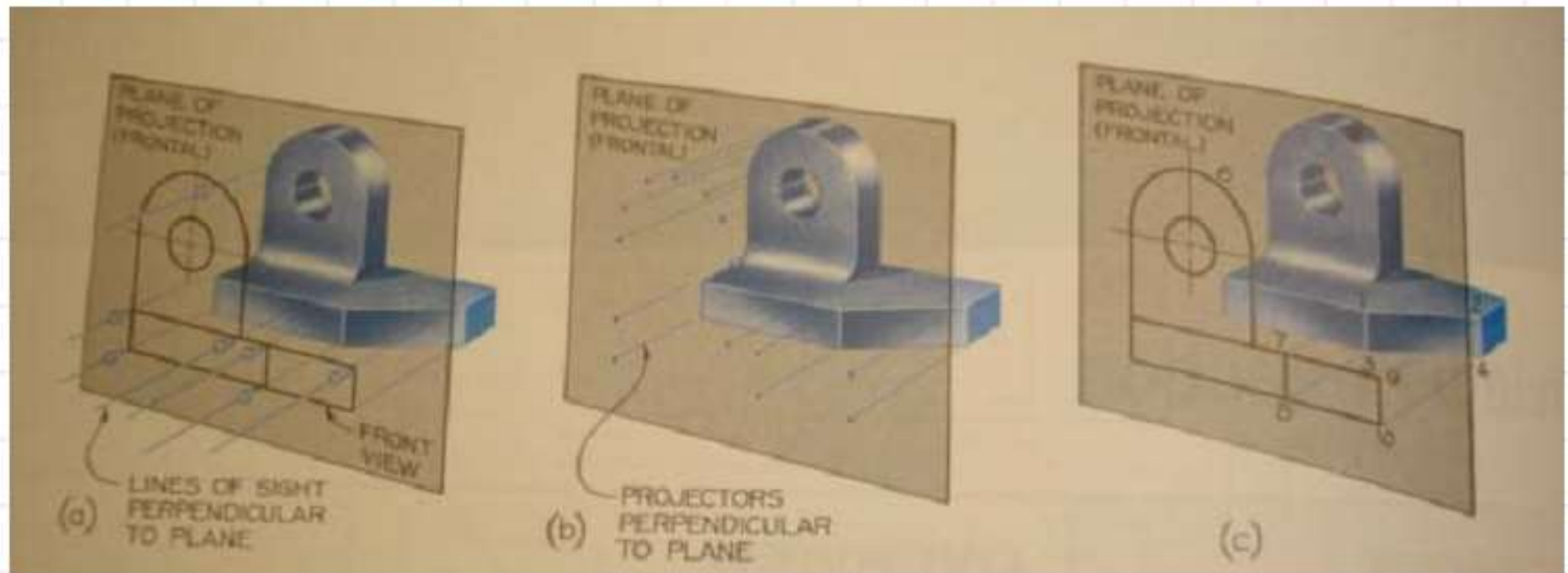
- Orthographic projections are a collection of 2D drawings that work together to give an accurate overall representation of an object.

Orthographic Projection



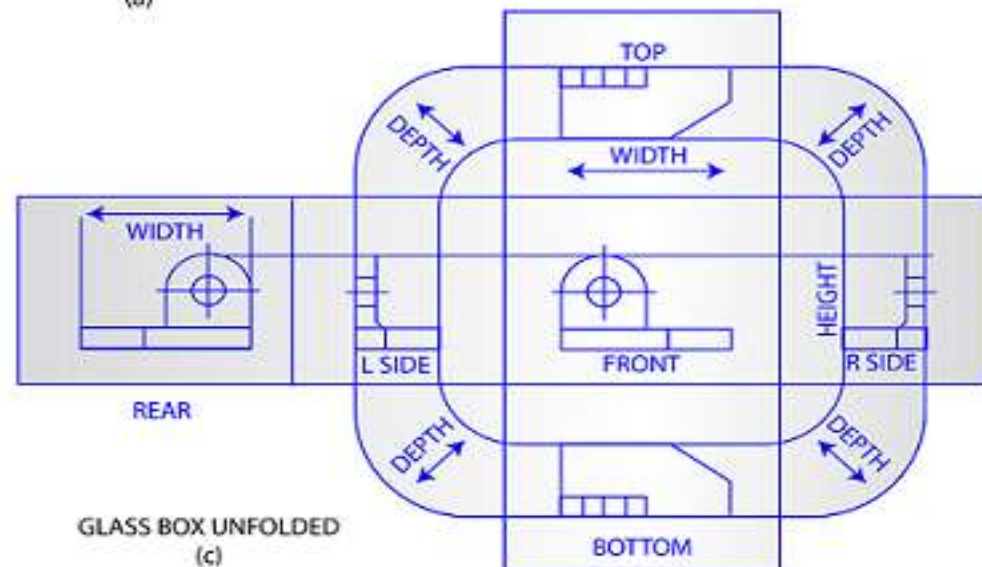
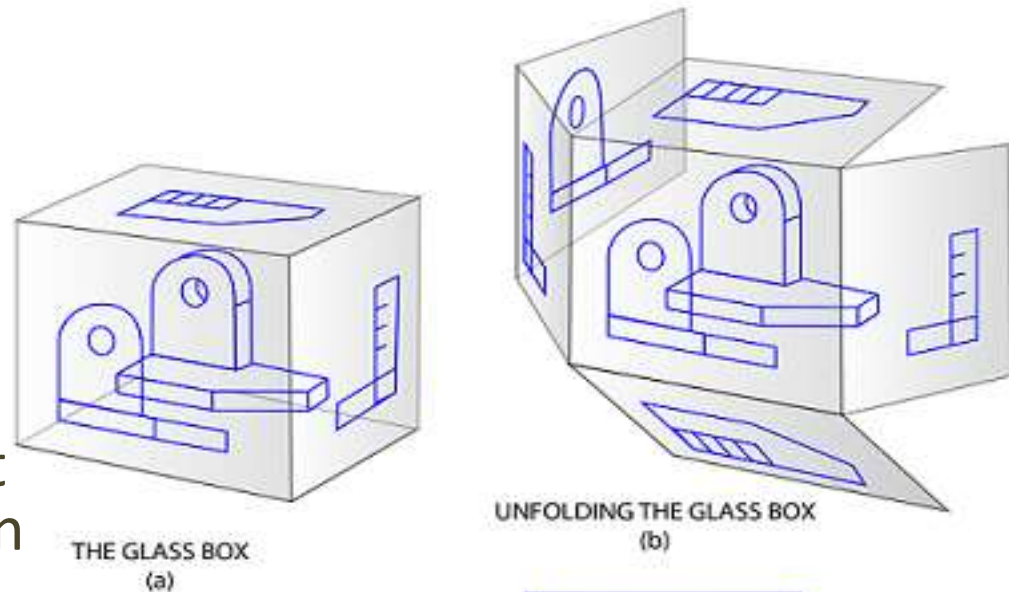
Gambar Proyeksi

- **Proyeksi Isometrik** adalah metode untuk menampilkan benda tiga dimensi secara dua dimensional dengan menampilkan keterangan teknisnya (ukuran, detail dll.)



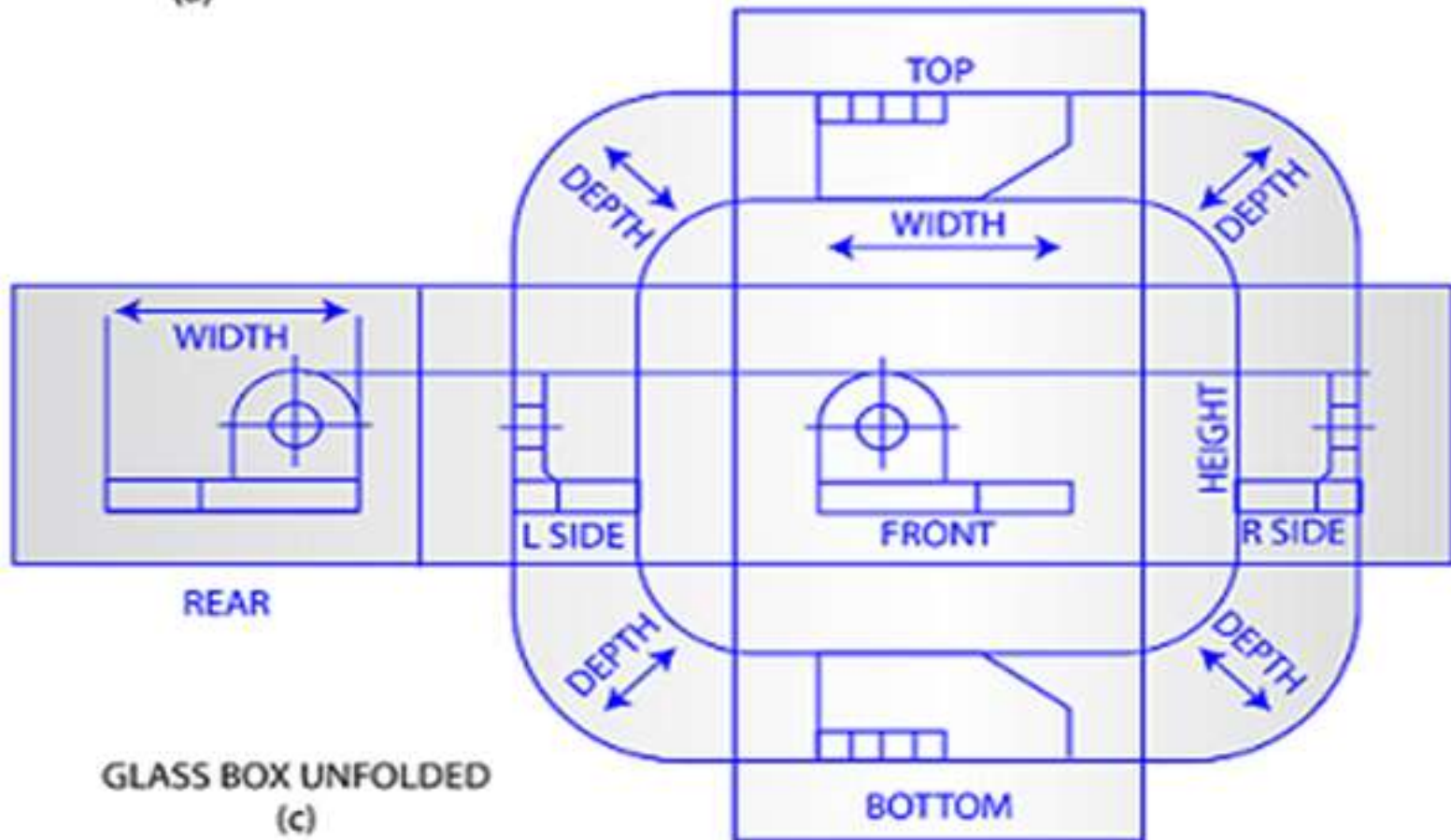
Multi-view Projection—The Glass Box

- Tempatkan bidang yang paralel untuk membentuk kotak kaca (amati obyek dari luar kotak kaca)
- Bayangkan jika kotak tersebut di-'bongkar' menjadi lembaran seperti ilustrasi disamping
- Seluruh bidang akan saling berhubungan pada satu sisi dengan bidang depan (selain bidang belakang) yang tersambung pada bidang kiri



Multi-view Projection—The Glass Box

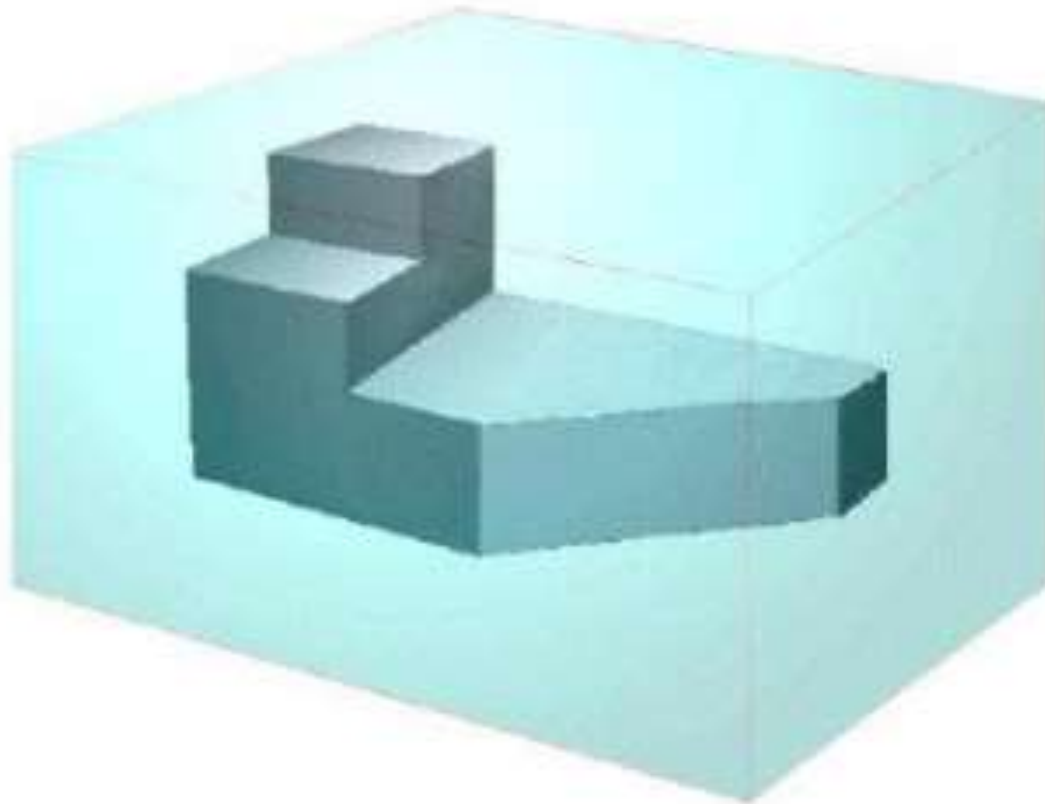
- Kalau sebuah kotak kita bongkar, maka akan ada 6 gambar tampak



Multi-view Projection—The Glass Box

Glass Box Approach

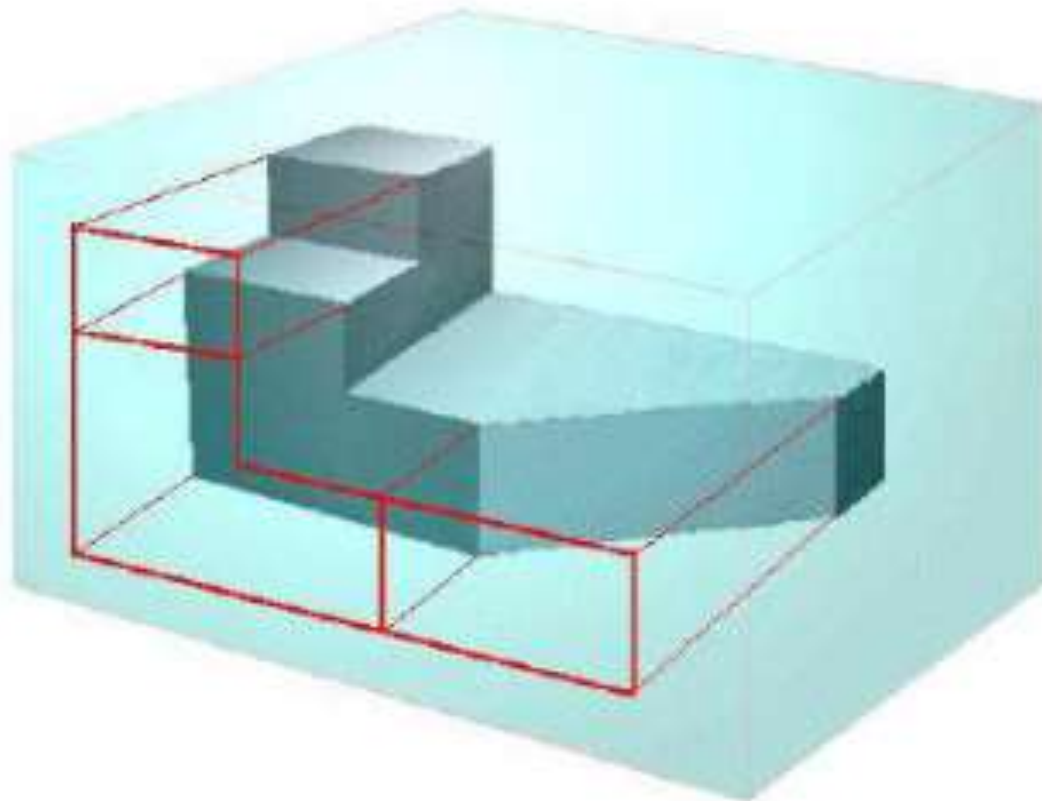
Projection of points to the three views



Multi-view Projection—The Glass Box

Glass Box Approach

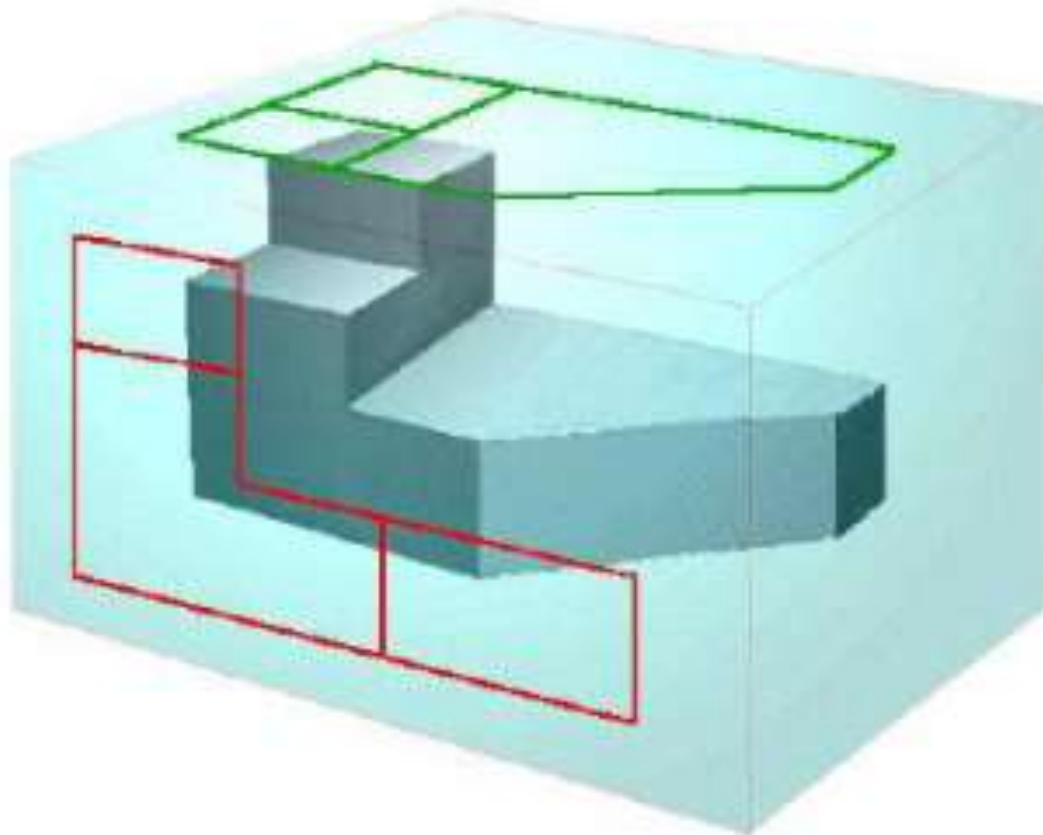
Projection of points to FRONT VIEW



Multi-view Projection—The Glass Box

Glass Box Approach

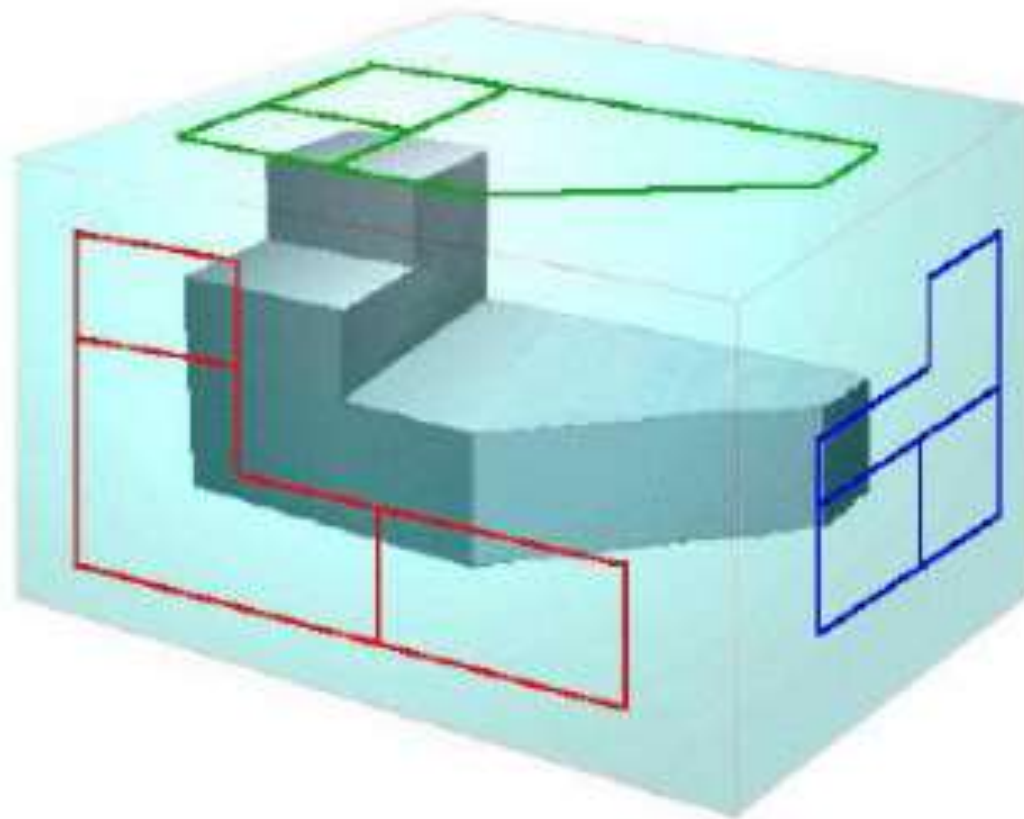
Projection of points to TOP VIEW



Multi-view Projection—The Glass Box

Glass Box Approach

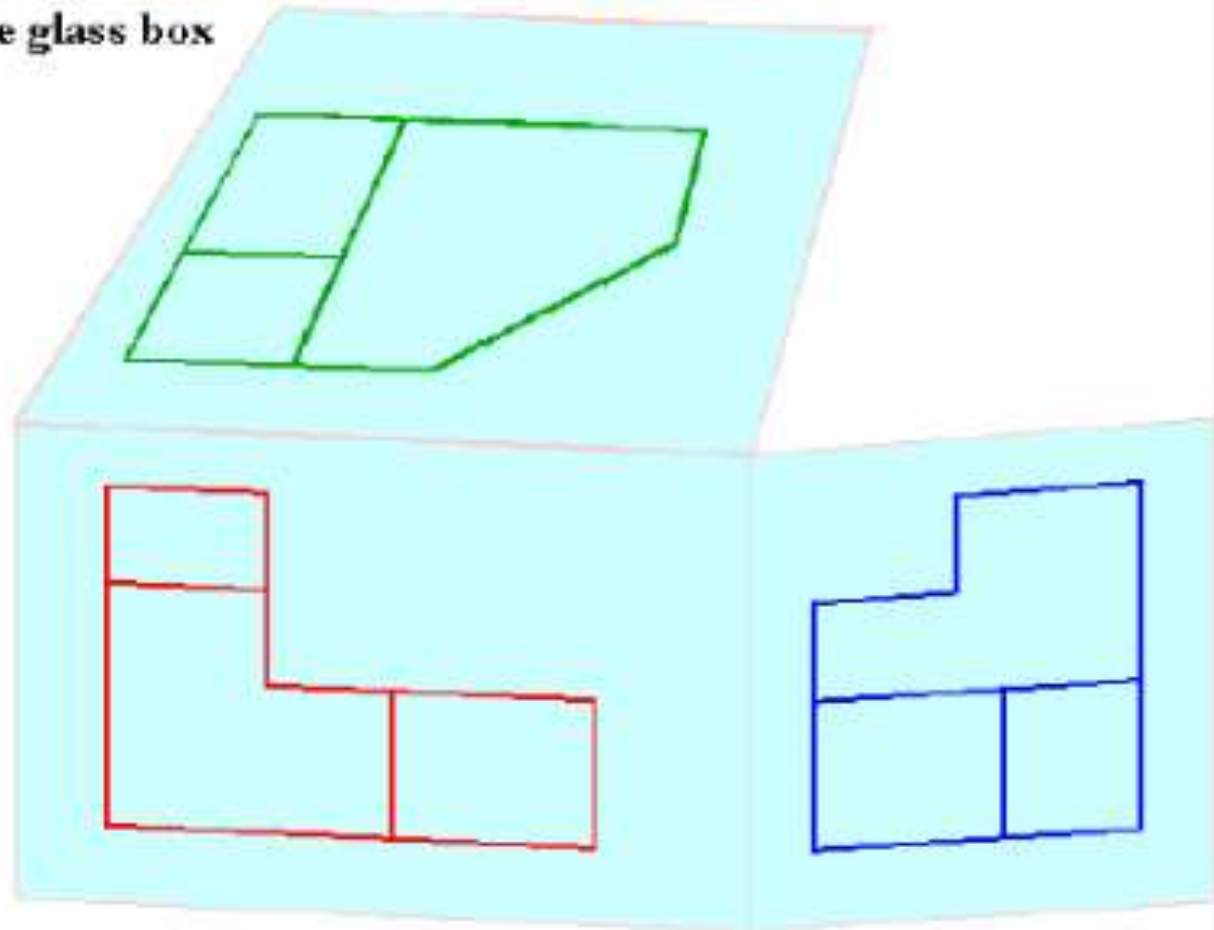
Projection of points to RIGHT SIDE VIEW



Multi-view Projection—The Glass Box

Glass Box Approach

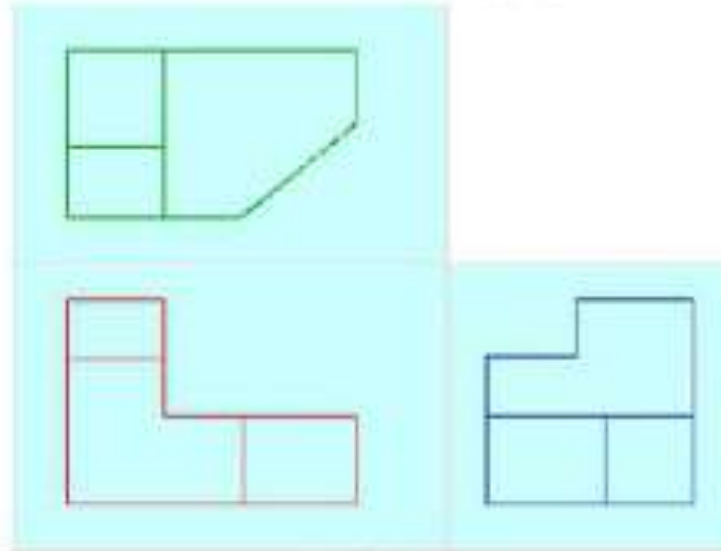
Unfold the glass box



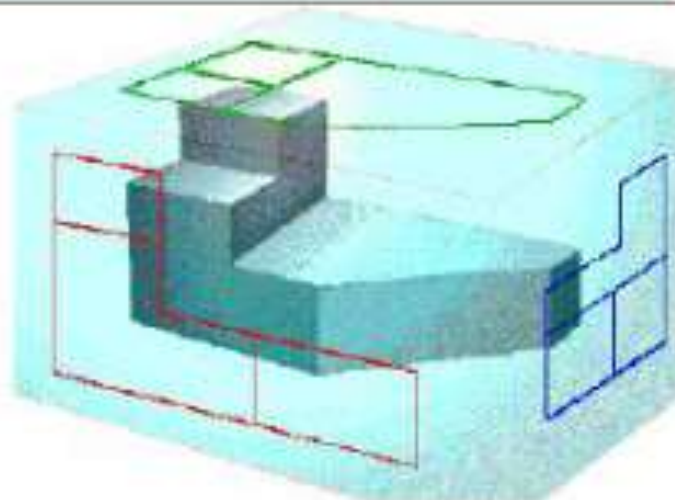
Multi-view Projection—The Glass Box

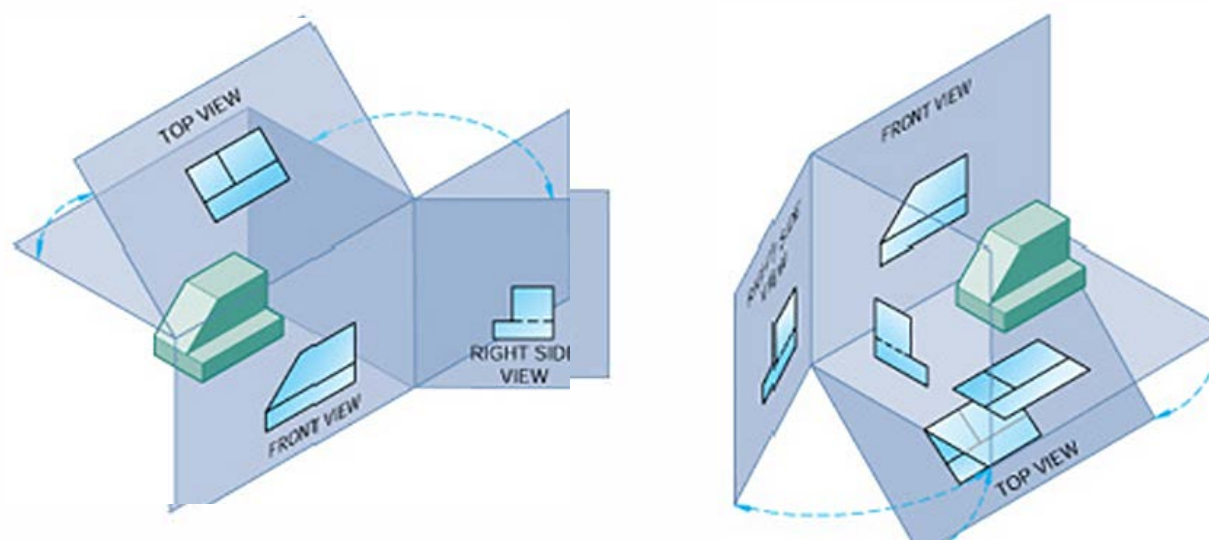
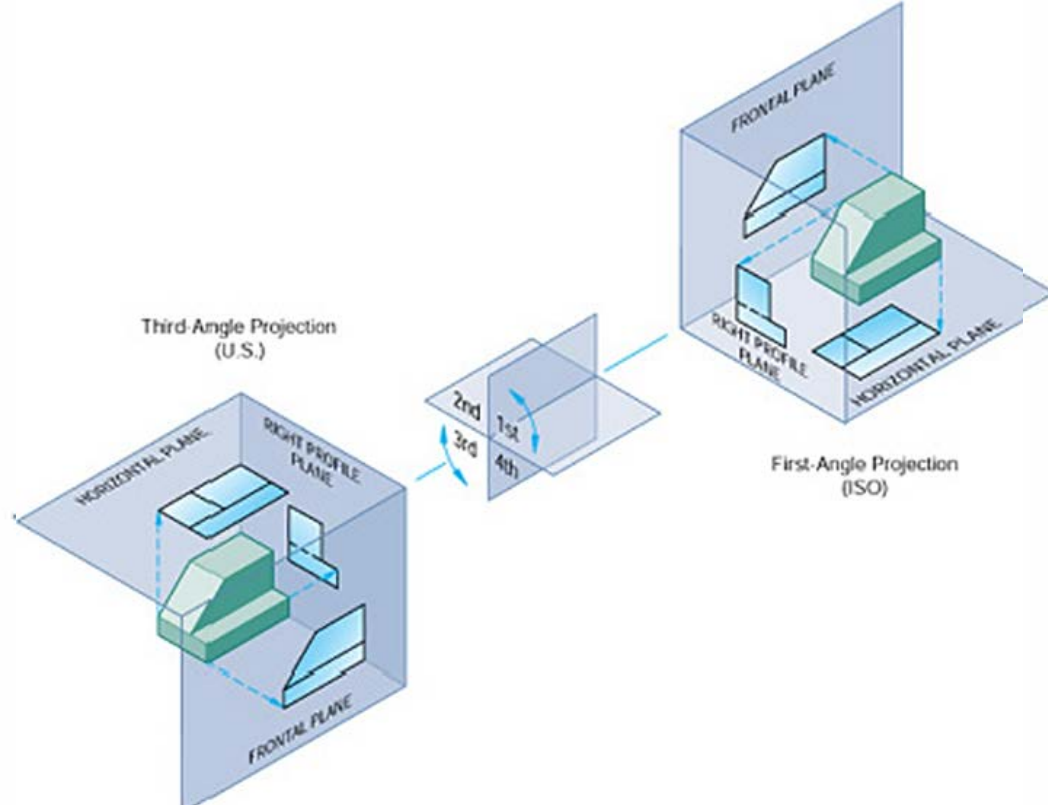
Glass Box Approach

Unfolded
glass-box



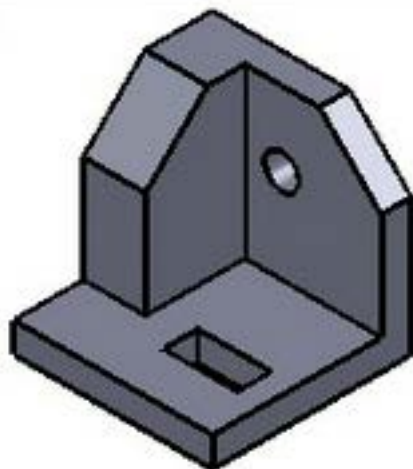
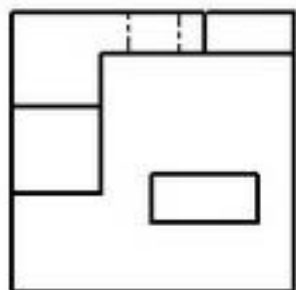
Object in the
glass-box



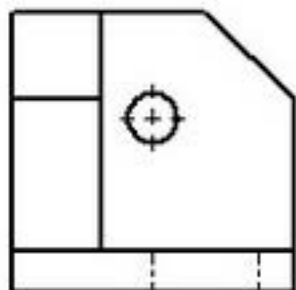


PROYEKSI AMERIKA

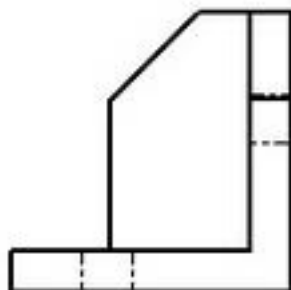
ATAS



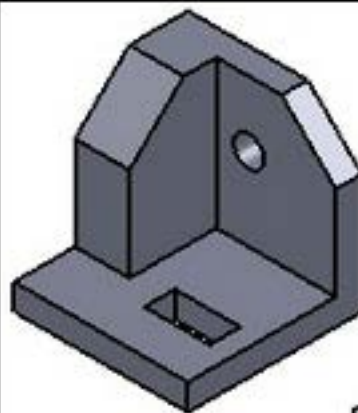
DEPAN



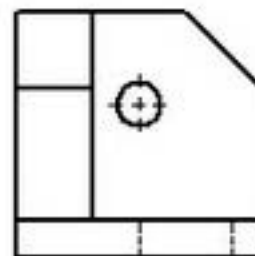
KANAN



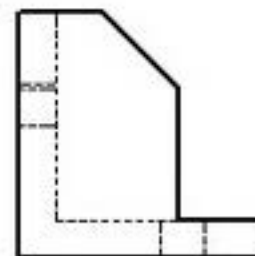
PROYEKSI EROPA



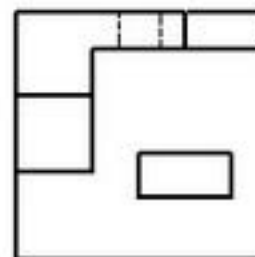
DEPAN



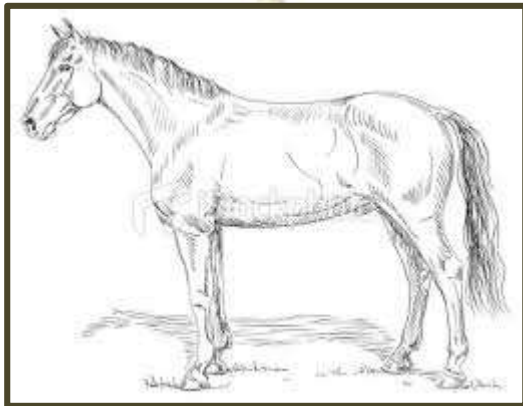
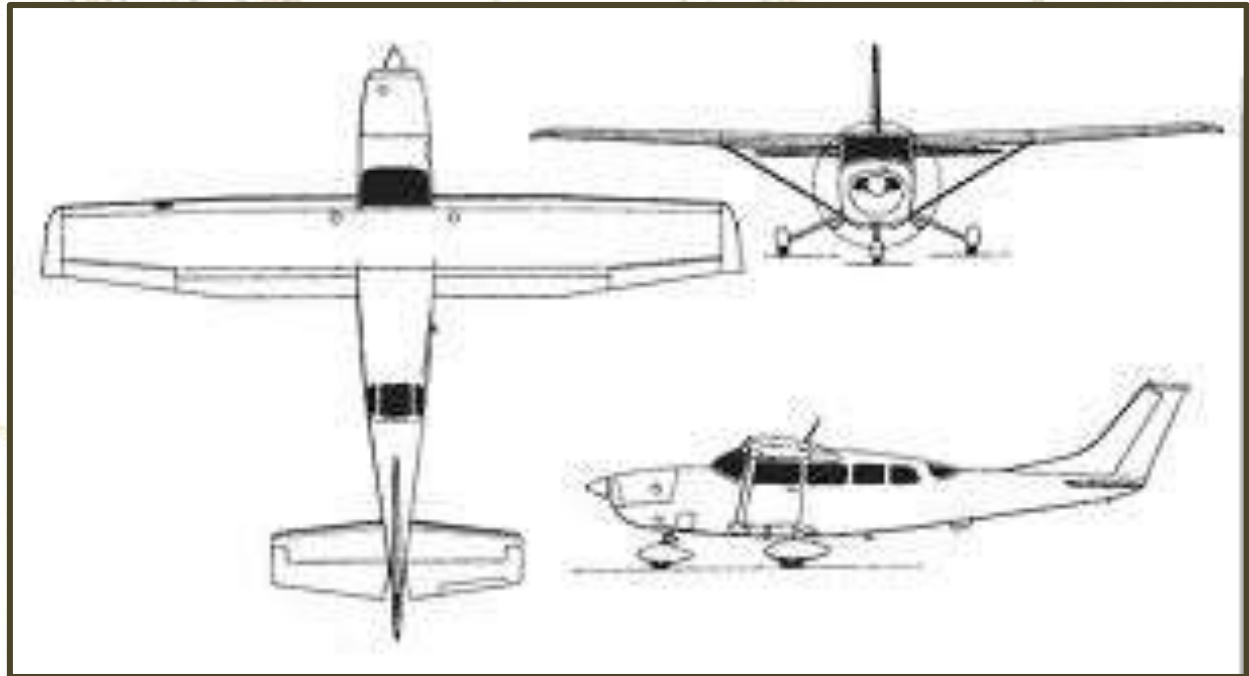
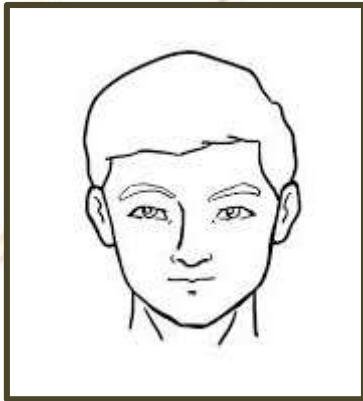
KIRI



ATAS



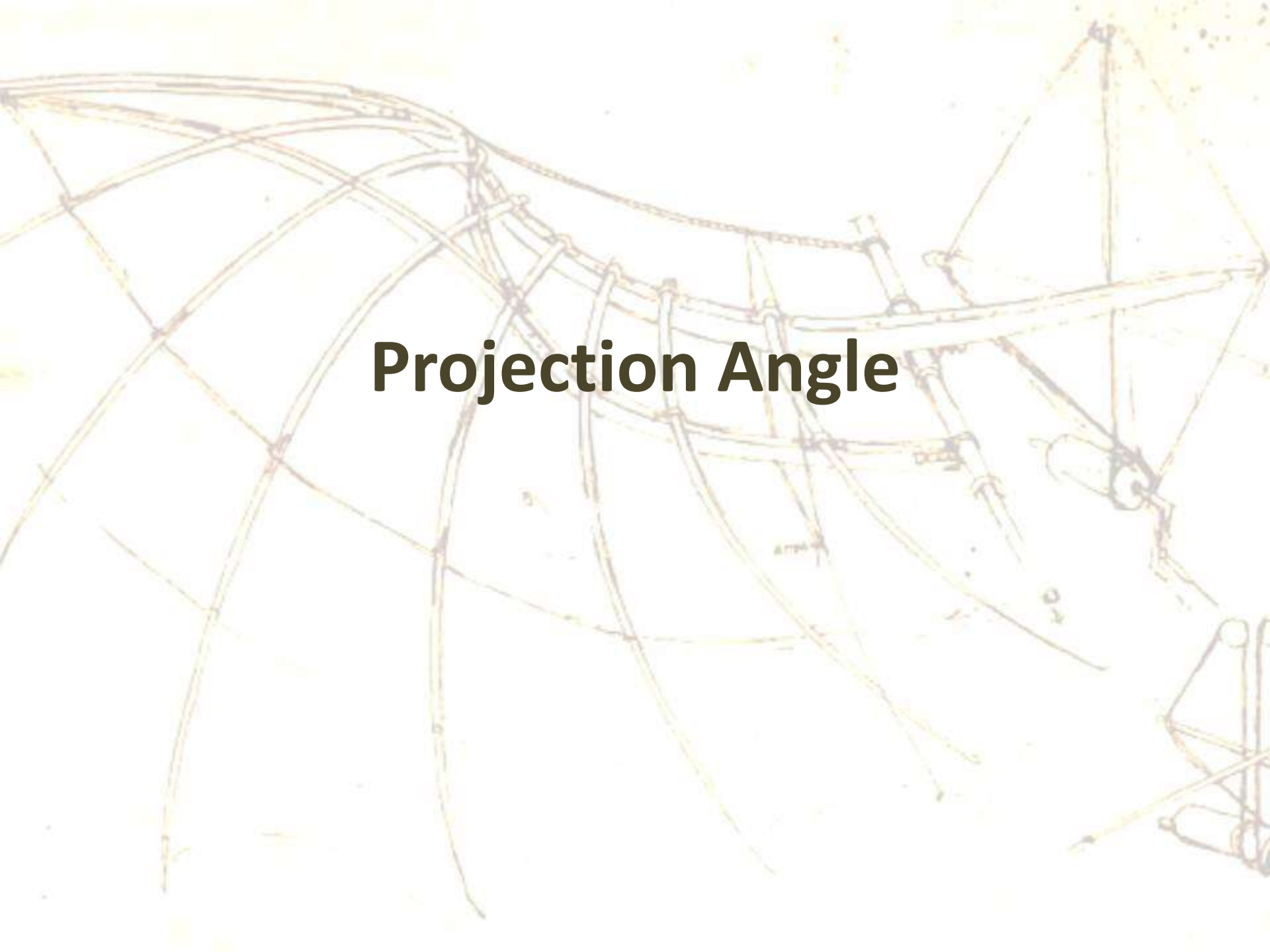
Which Views to Present?



Which Views to Present?

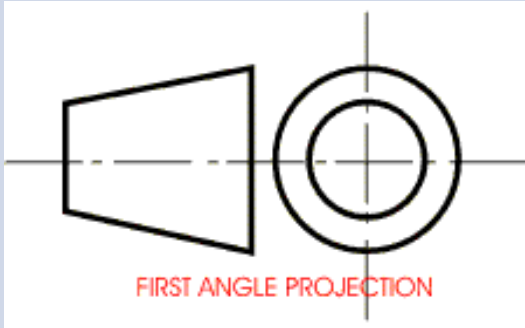
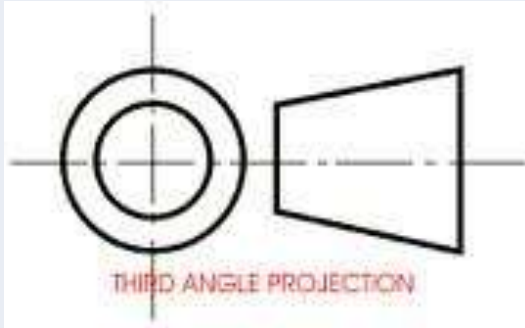
- **General guidelines**

- Pilih tampak depan yang mengandung informasi paling jelas dari obyek
- Dimensi terpanjang biasanya digunakan sebagai ukuran lebar (atau kedalaman)
- Kombinasi gambar tampak umumnya :
 - Tampak depan, tampak atas, dan tampak samping
- Tampak lain juga bisa ditambahkan (gambar perspektif, detail khusus, transparan dll.)

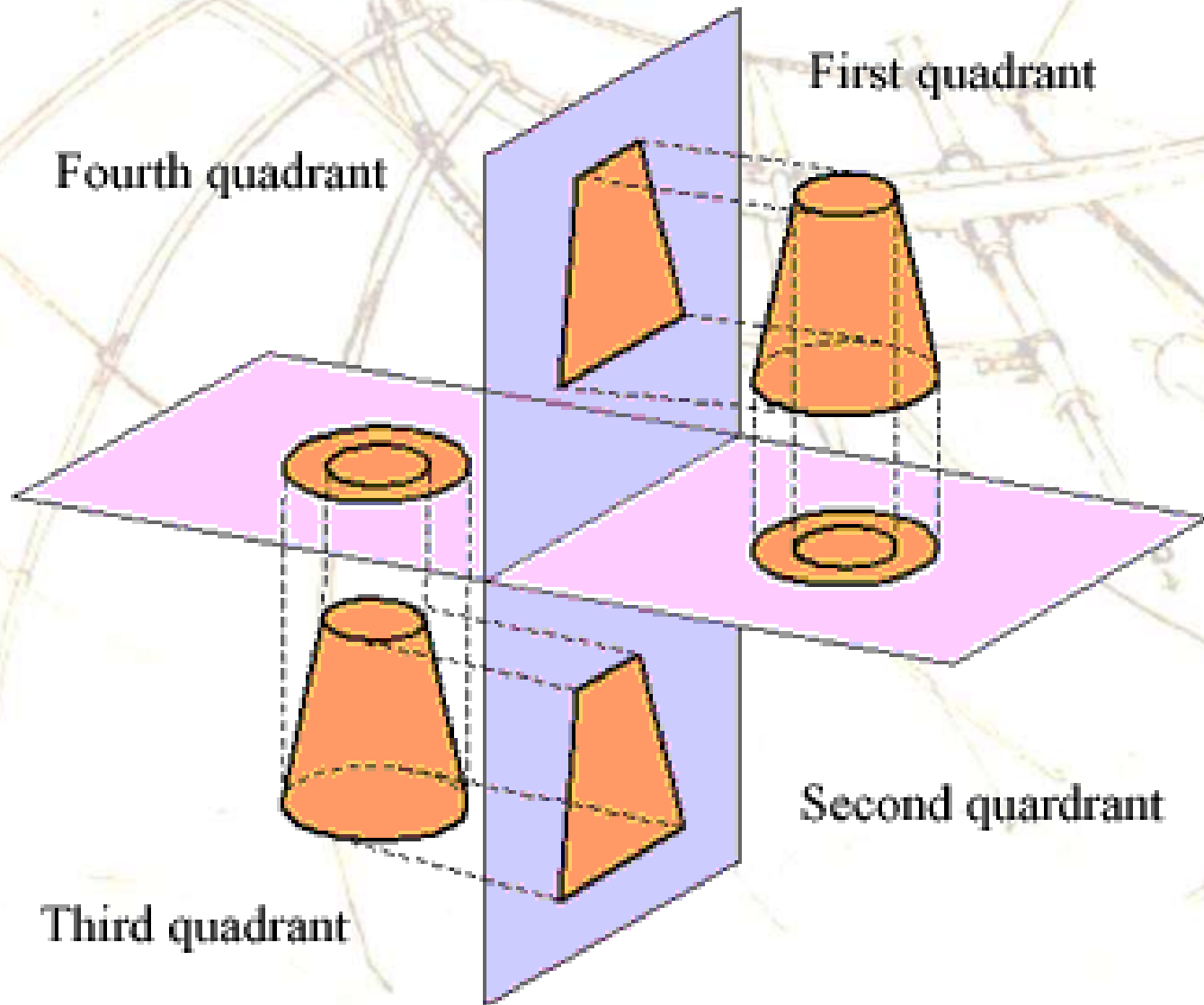
A technical drawing of a ship's hull structure, showing various curved and straight lines representing the hull's geometry. The drawing is rendered in a light brown or sepia tone. Overlaid on the center of the drawing is the text "Projection Angle" in a bold, black, sans-serif font.

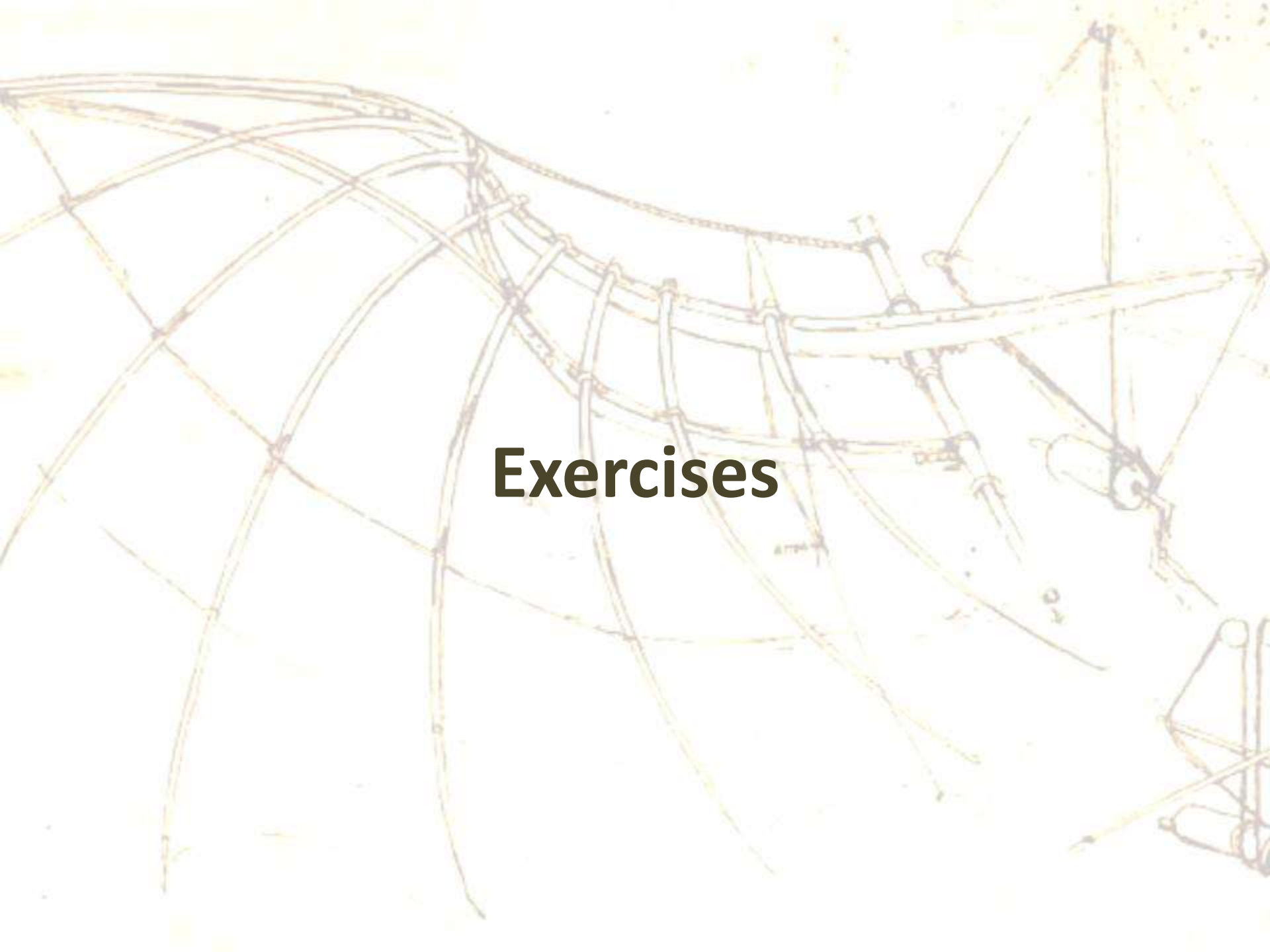
Projection Angle

Projection Angle

Projection	Symbol	
First Angle		European
Third Angle		American

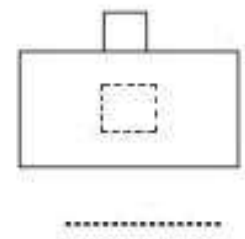
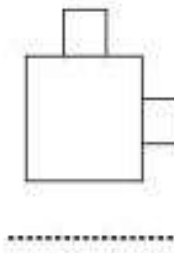
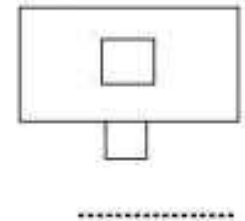
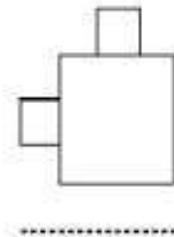
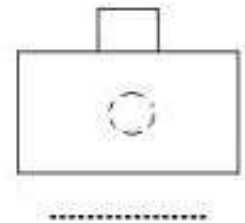
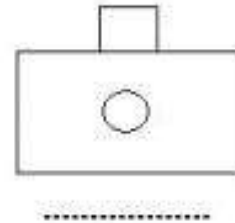
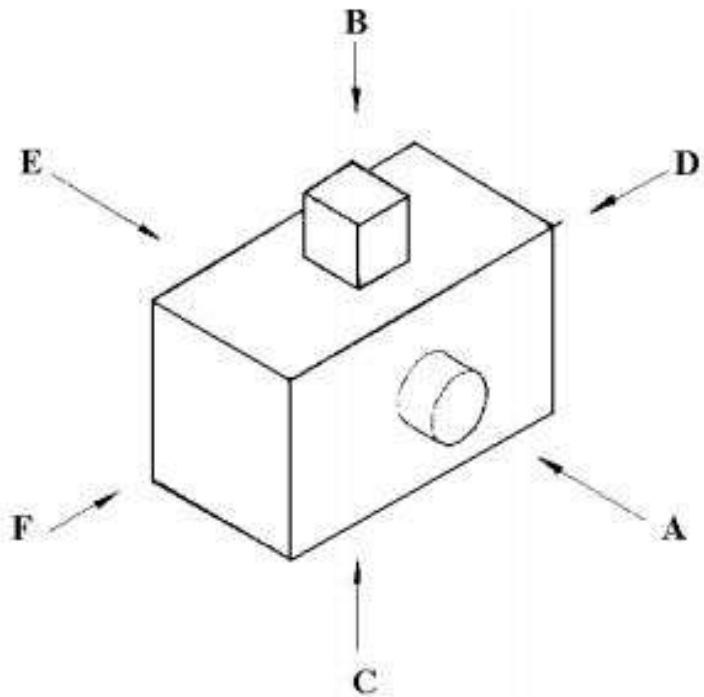
Projection Angle



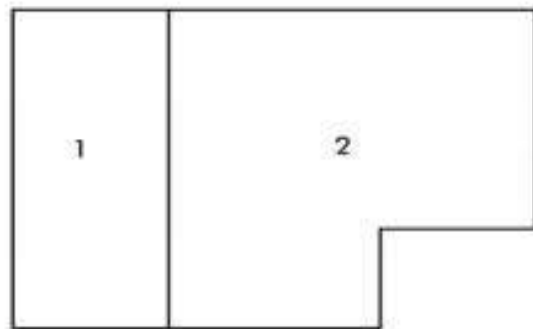


Exercises

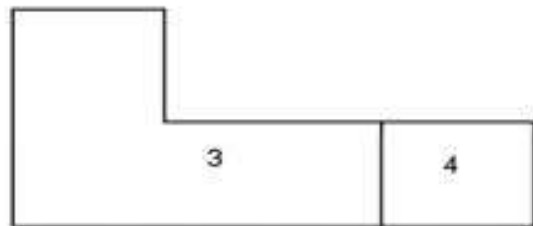
Exercises



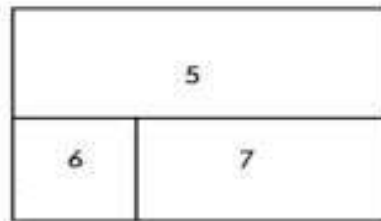
Exercises



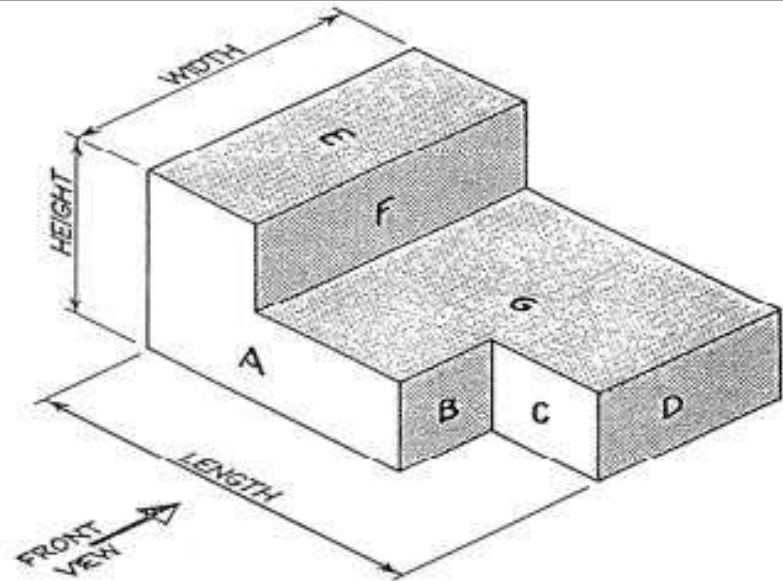
TOP VIEW



FRONT VIEW



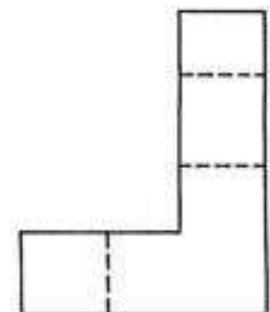
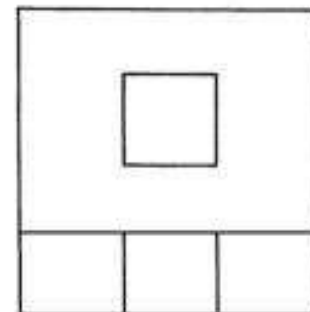
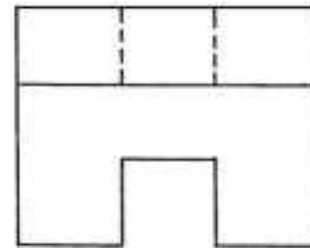
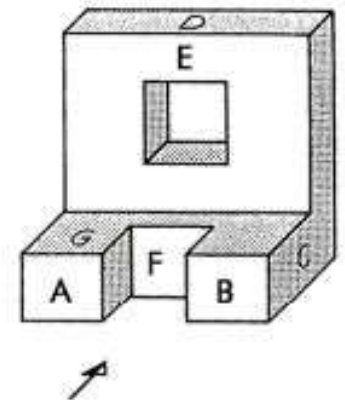
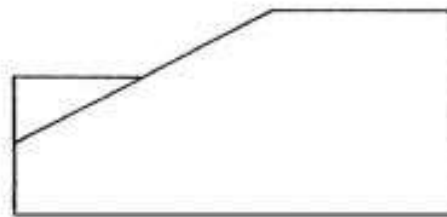
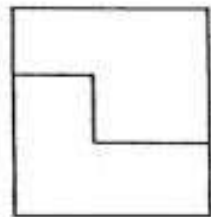
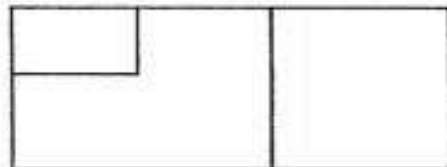
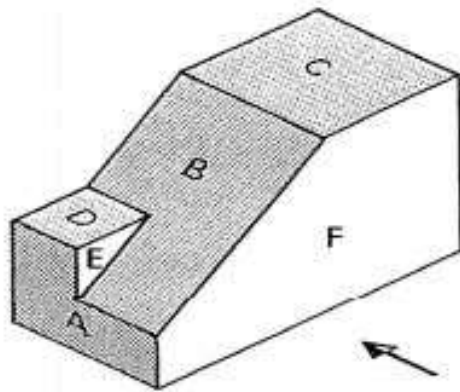
SIDE VIEW



A	B	C	D	E	F	G

Exercises

EXERCISES. Transfer the letters from the isometric drawing onto the same plane surfaces of the orthogonal drawing. Name each view.



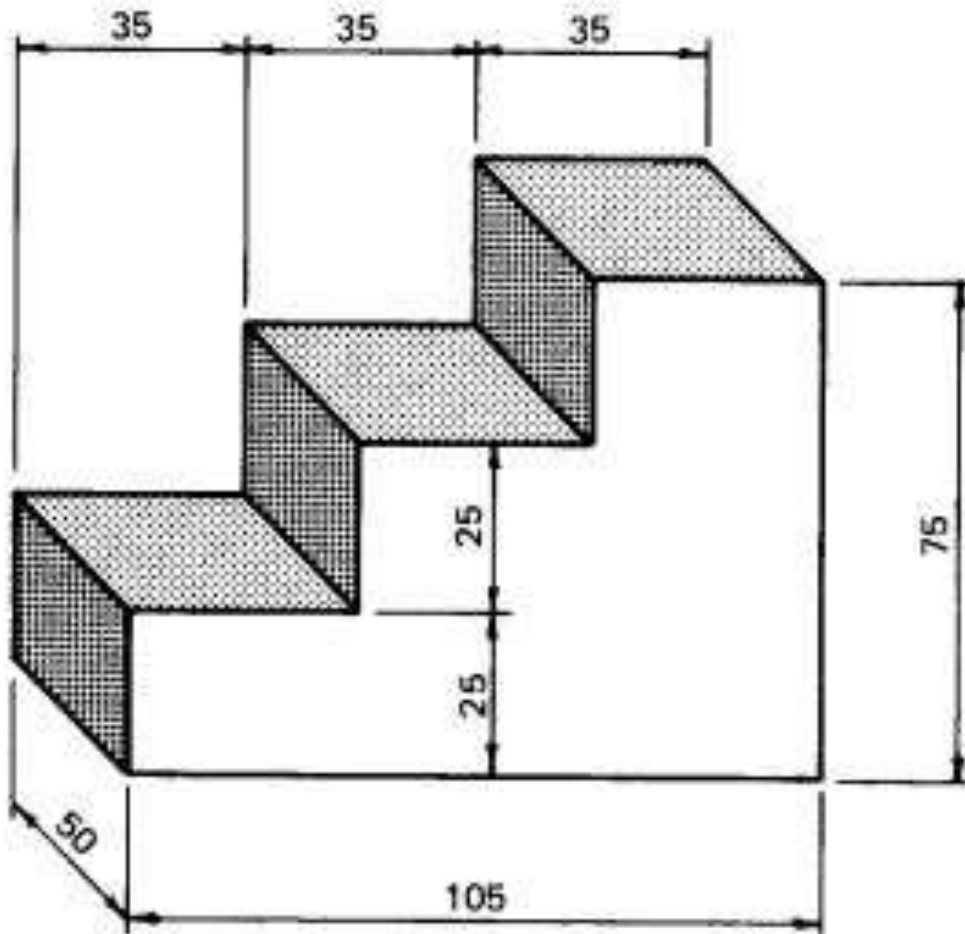
DRG. ORTHOGRAPHIC PROJECTION

EXERCISE 3

EXERCISES. From drawings 1 to 18 opposite select the view which is requested in the table below. Place the number of this view in the

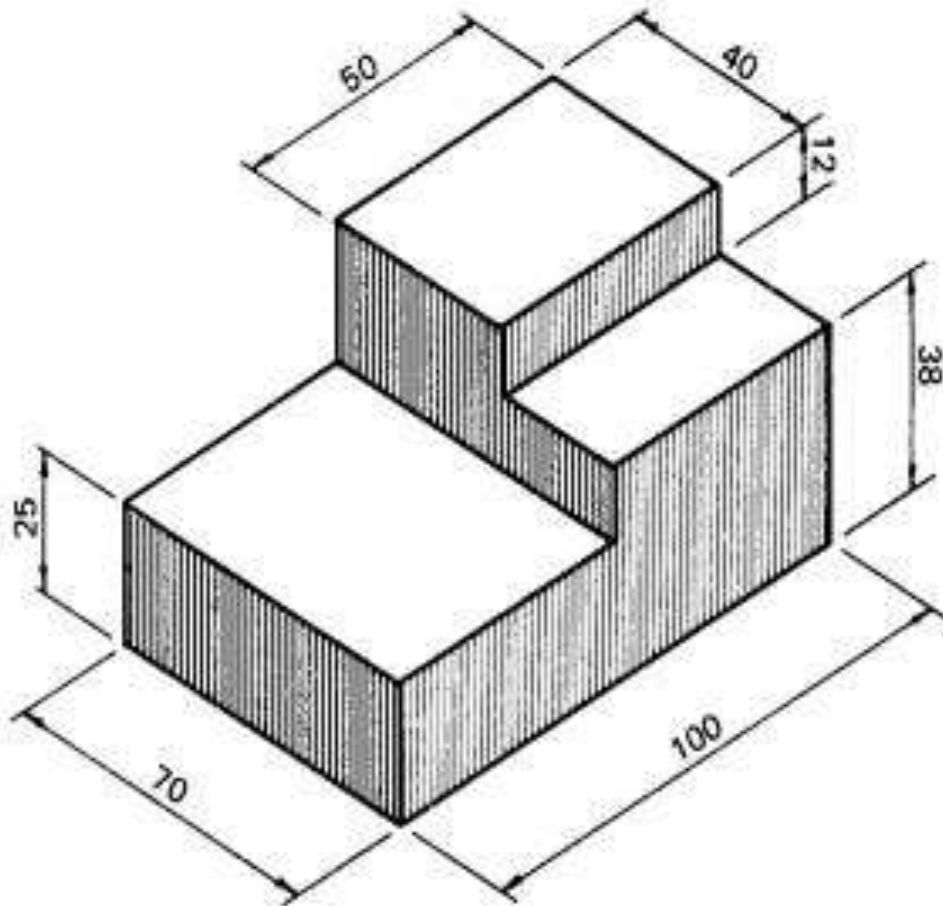
Latihan

Buatlah gambar tampak obyek ini
menggunakan metode proyeksi
amerika



Latihan

Buatlah gambar tampak obyek ini
menggunakan metode proyeksi
Eropa



Tugas 5

1. Pilih sebuah produk
2. Pada selembar kertas ukuran A3, buat gambar proyeksi yang menunjukkan kemasan dari 4 tampak
 - a. Tampak depan
 - b. Tampak atas
 - c. Tampak samping
 - d. Gambar Isometri



Thank You