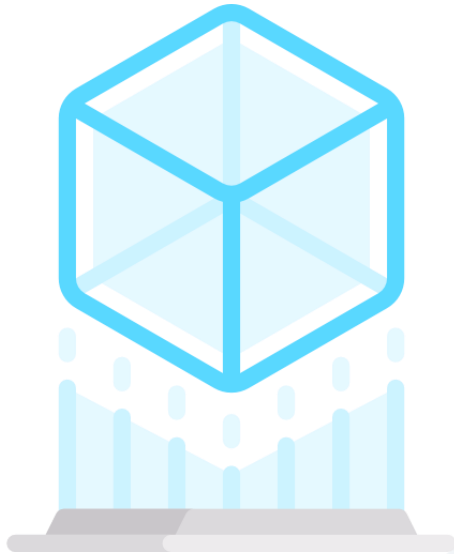
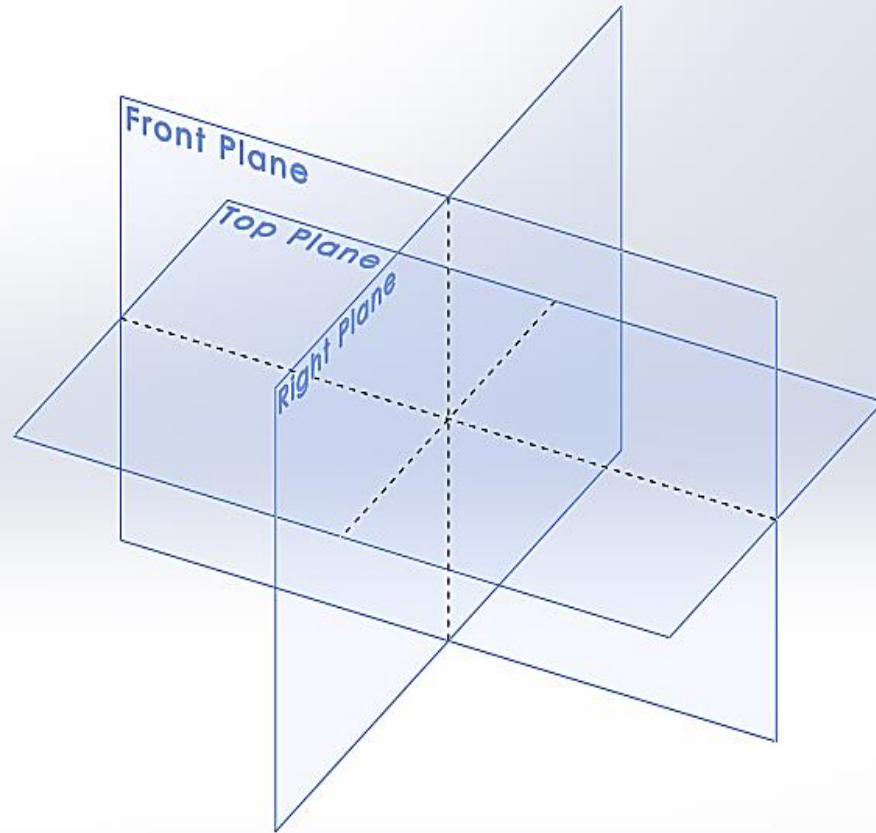


Multi view projection

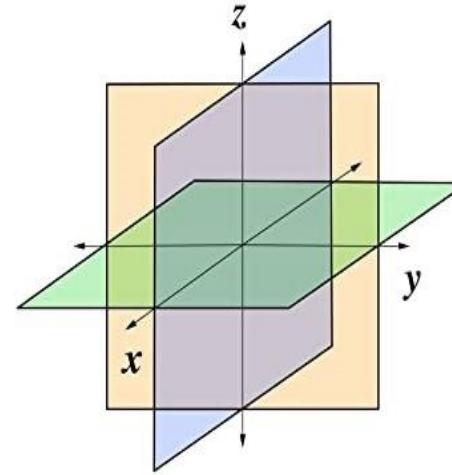
chapter 2



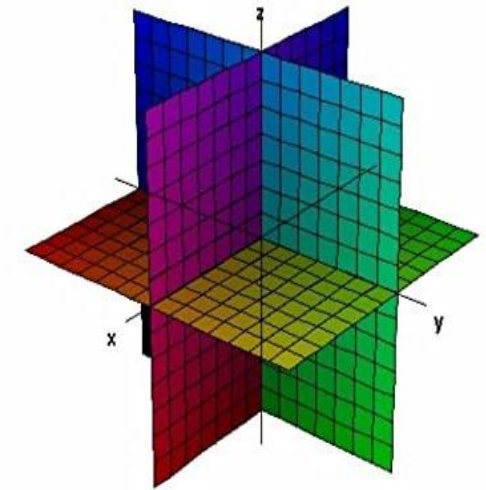
3D coordinate system



Three Dimensional Coordinate System

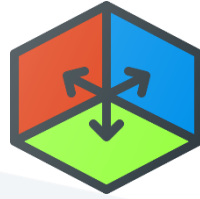


2D View



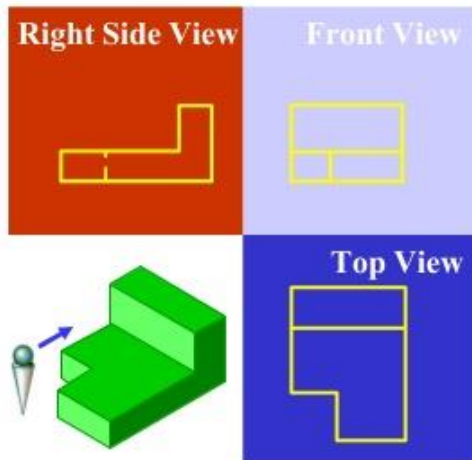
3D View

Angel systems

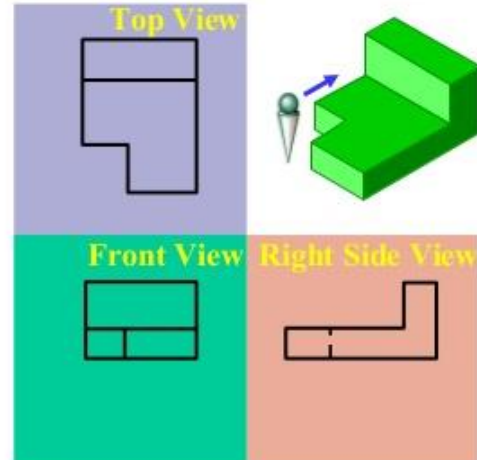


ORTHOGRAPHIC VIEWS

1st angle system



3rd angle system



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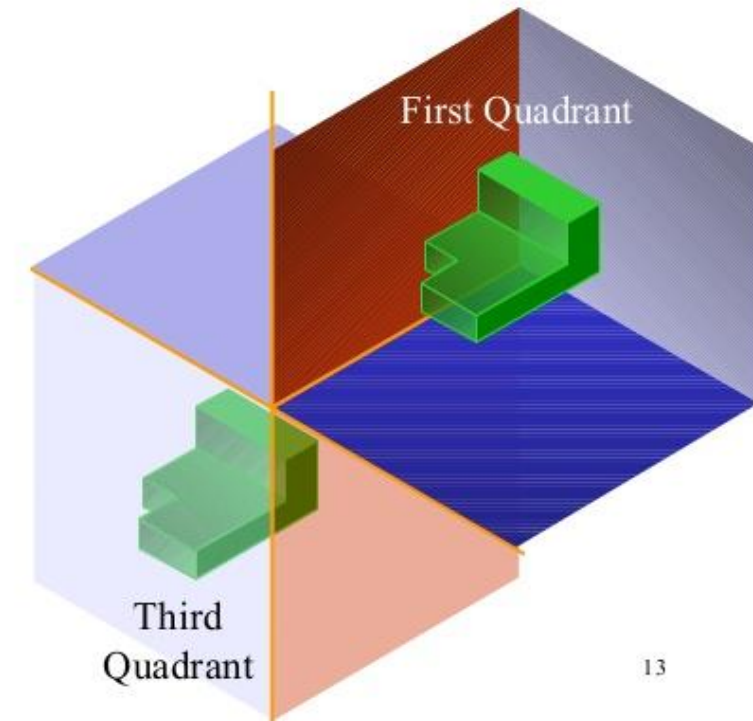
PROJECTION SYSTEMS

1. First angle system

- European country
- ISO standard

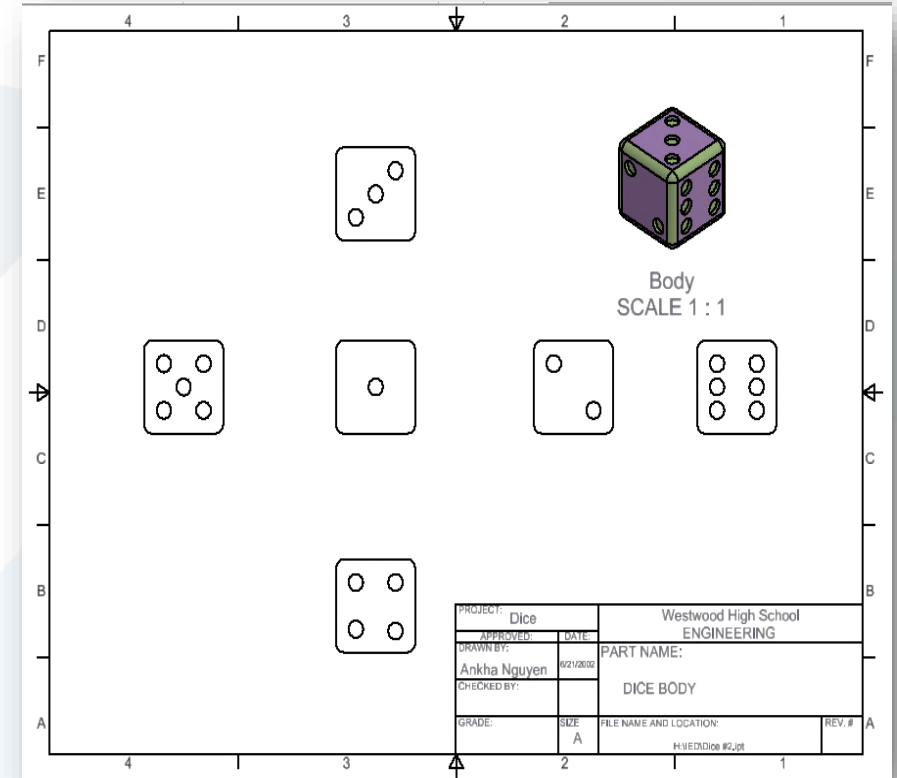
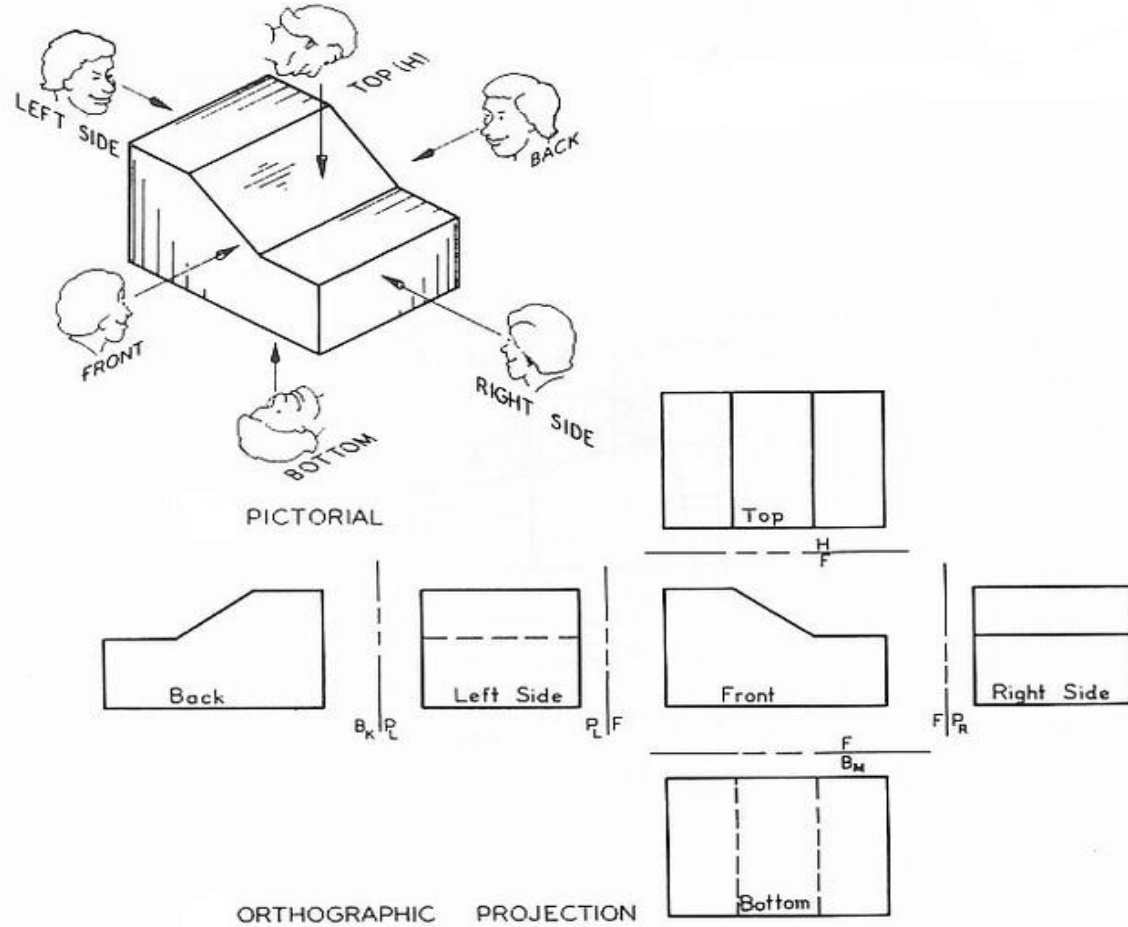
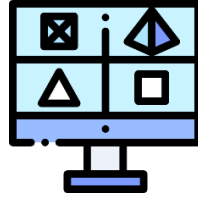
2. Third angle system

- Canada, USA,
Japan, Thailand

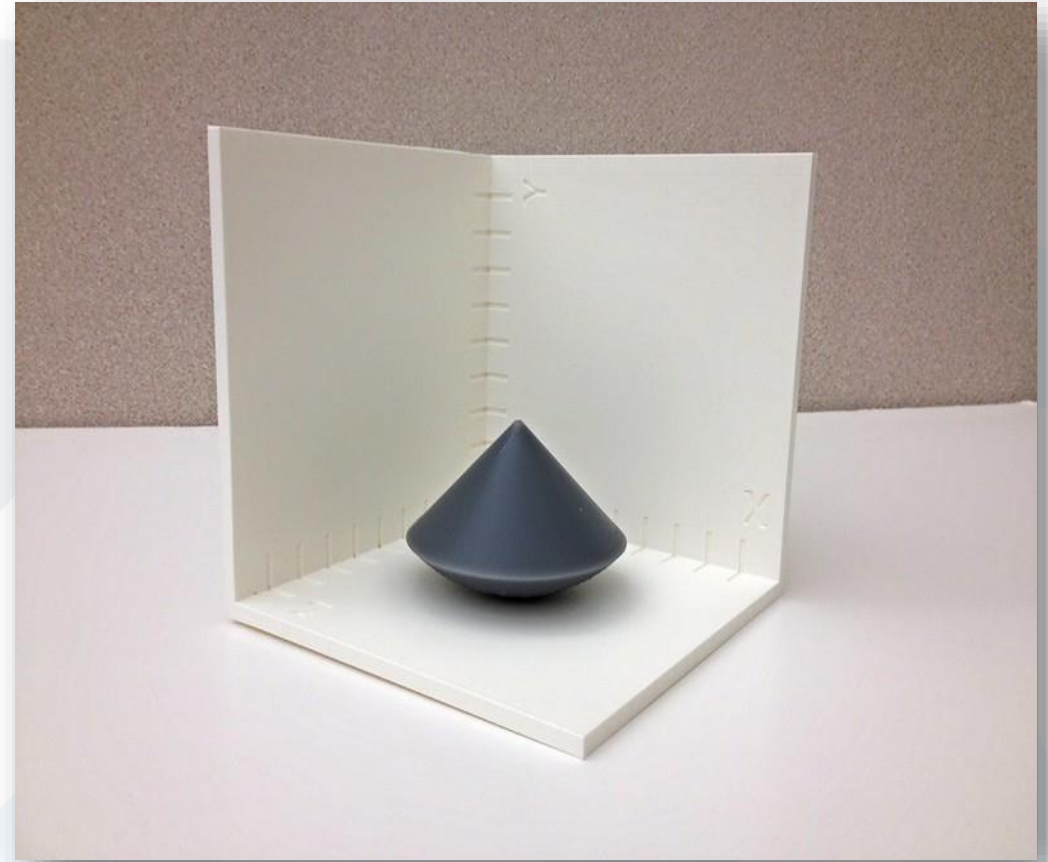
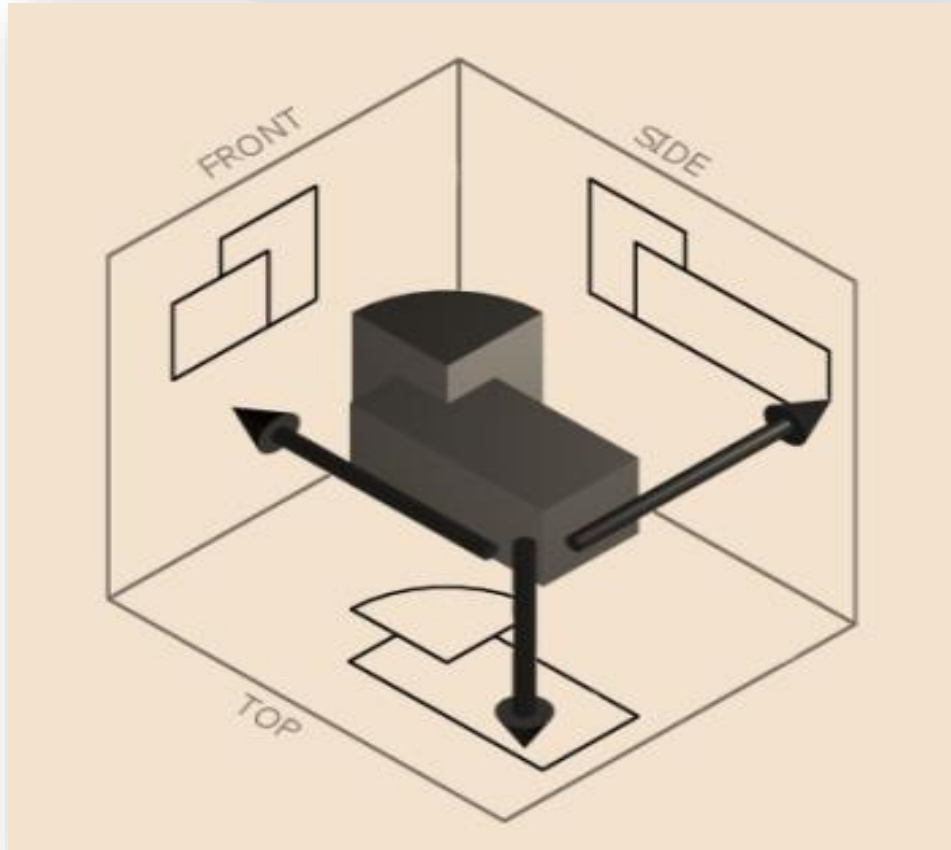


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Multi view concept :

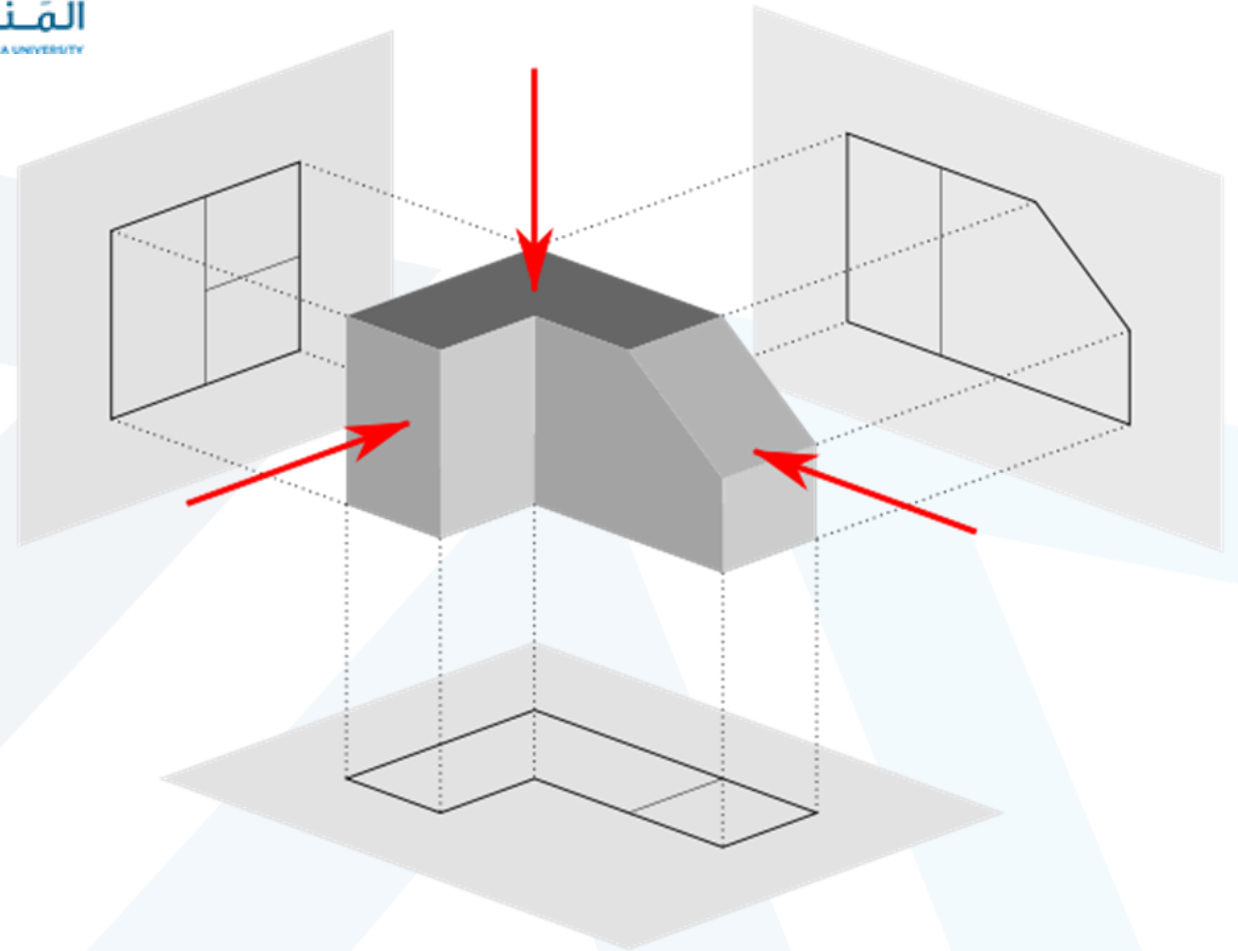


First angle example

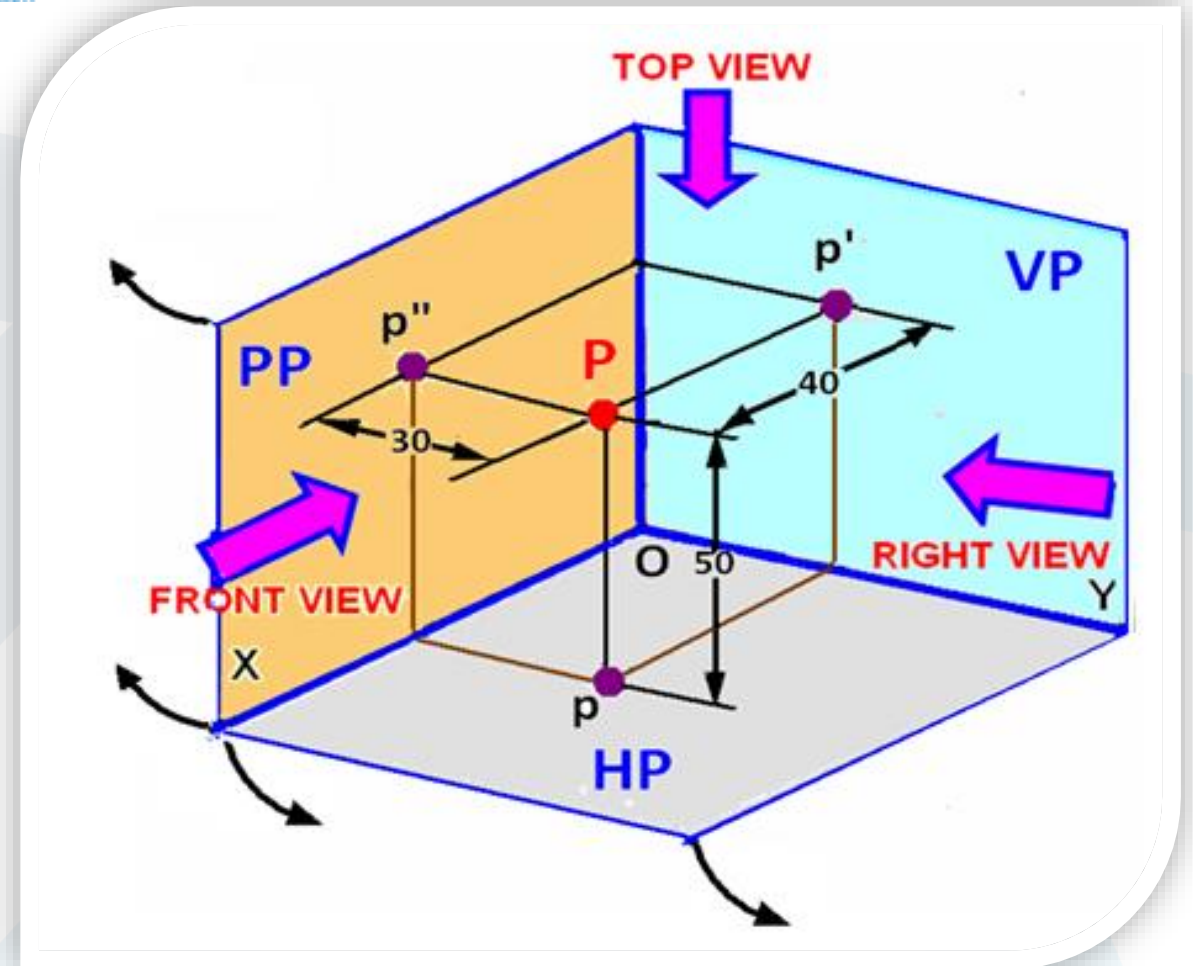
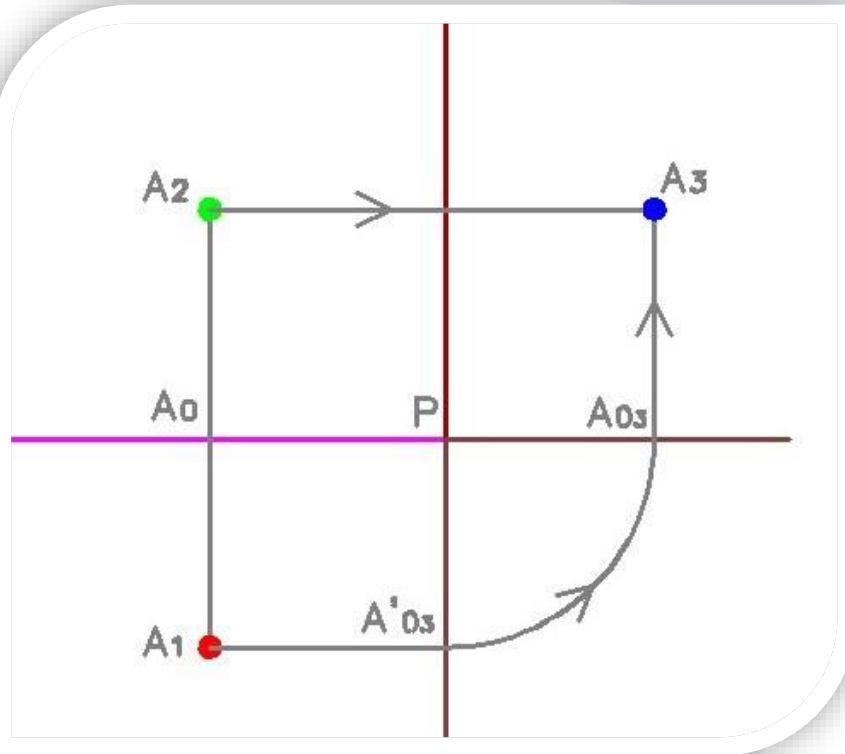


Graphical Projection

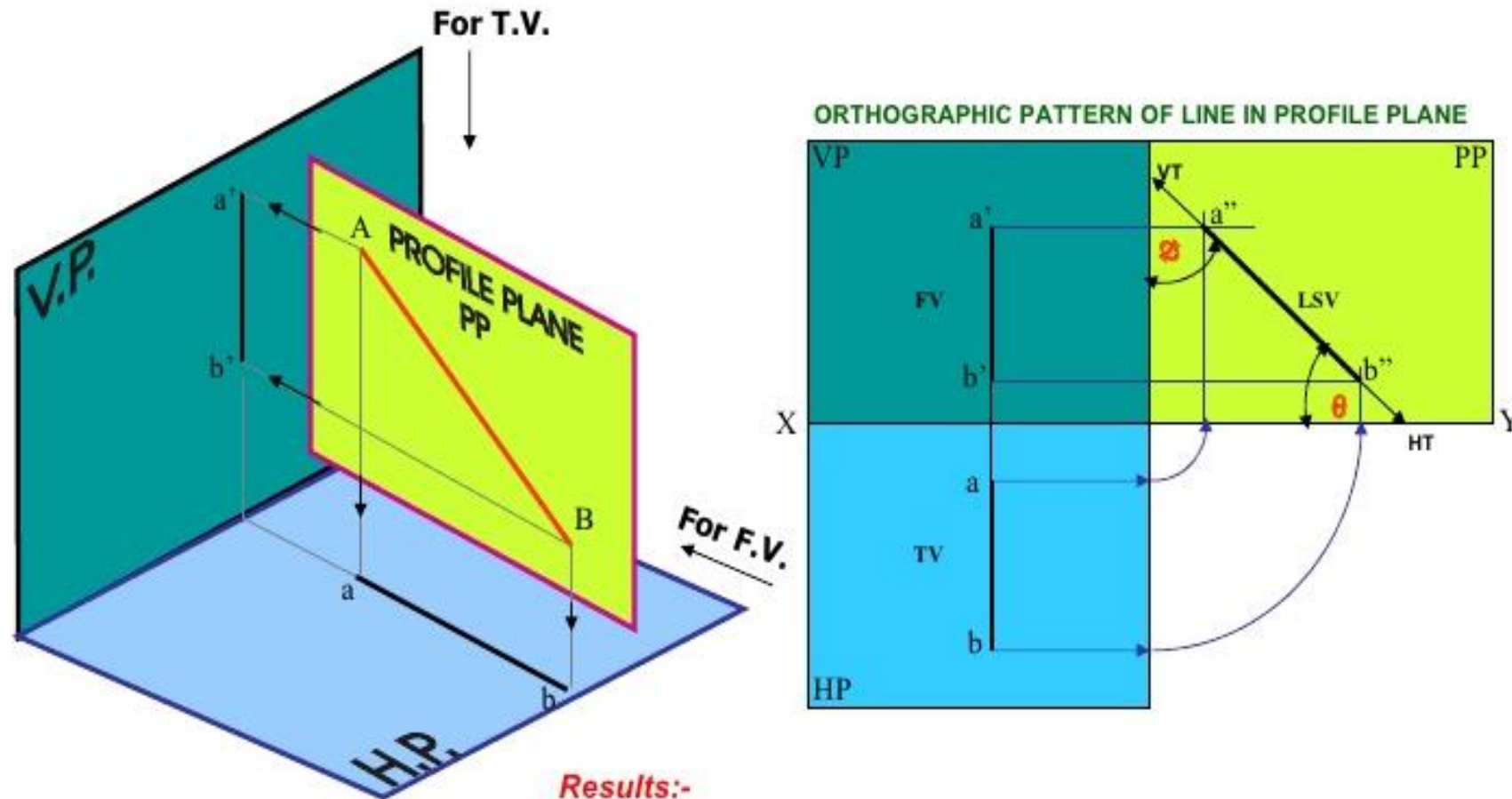
- Theory and application of multi view drawing.



Point projection



Projection of a straight line



Geometric shapes

Main shapes :

- Square
- Rectangle
- Circle
- Triangle
- hexagon

Geometric Shapes



square



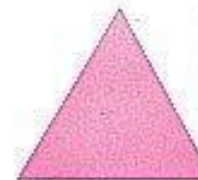
rectangle



circle



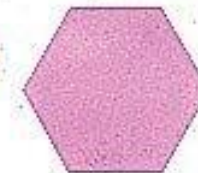
oval



triangle



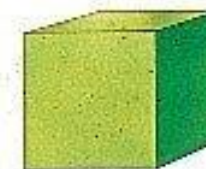
pentagon



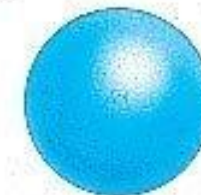
hexagon



octagon



cube



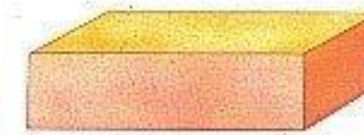
sphere



cylinder



cone



rectangular prism

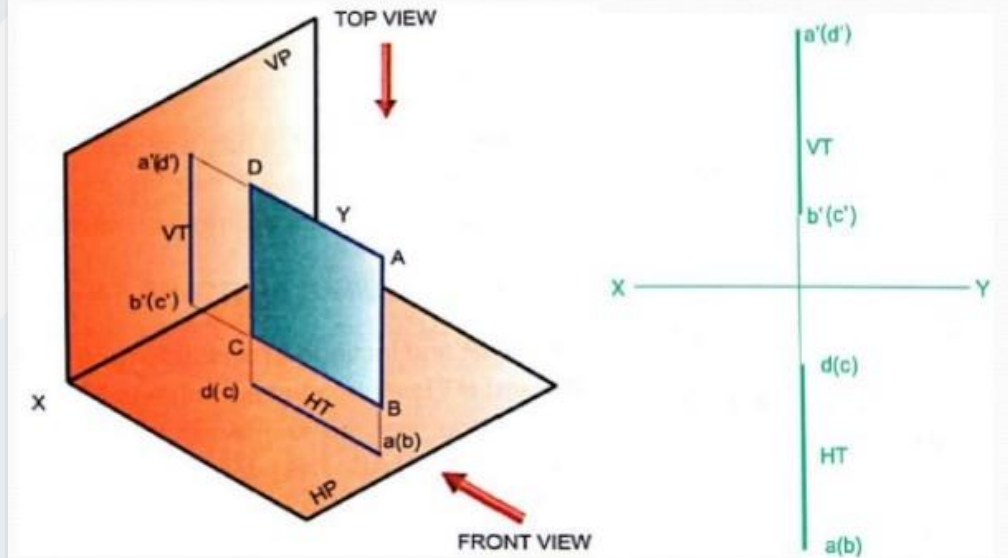
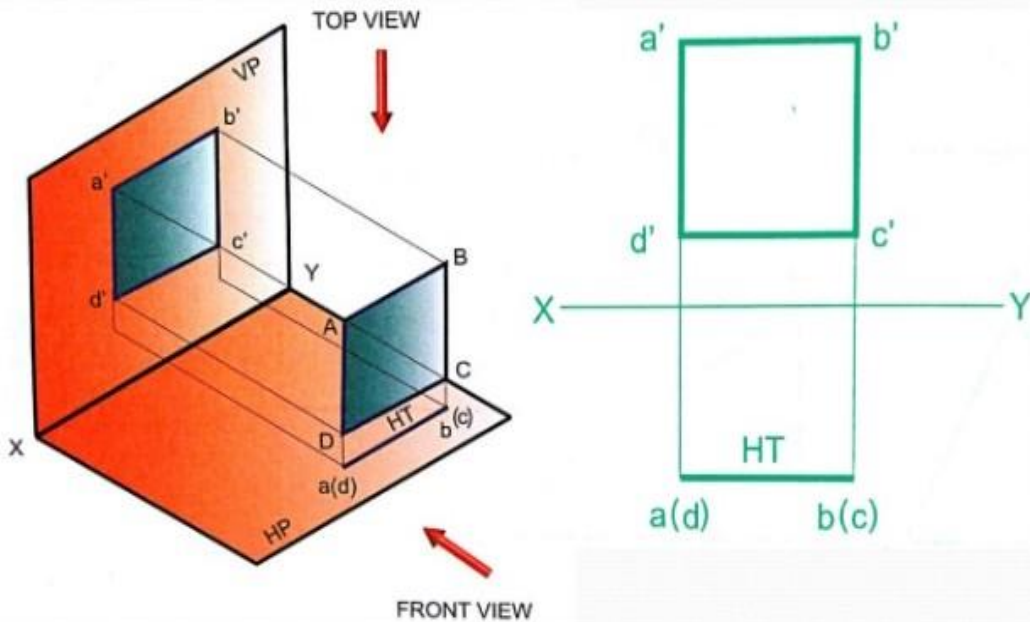
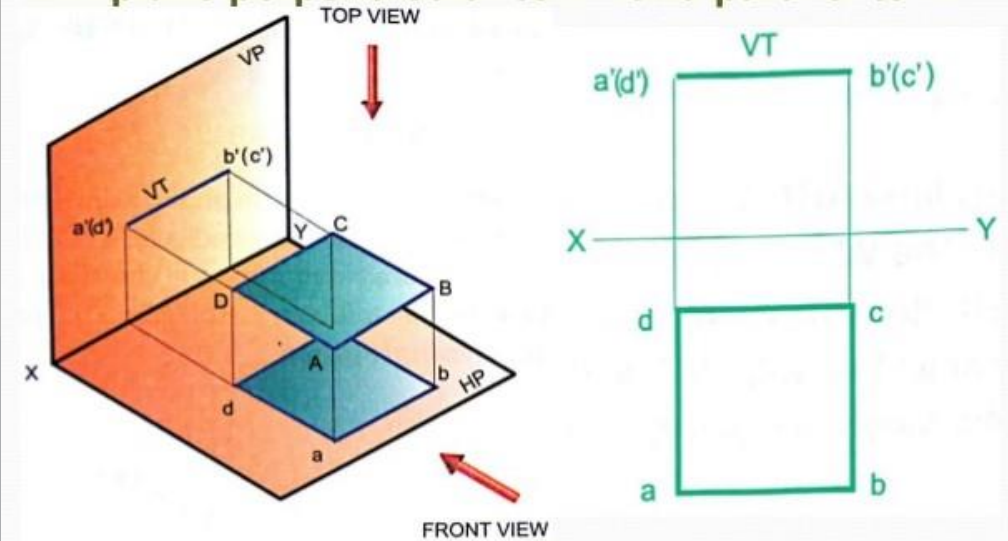


pyramid

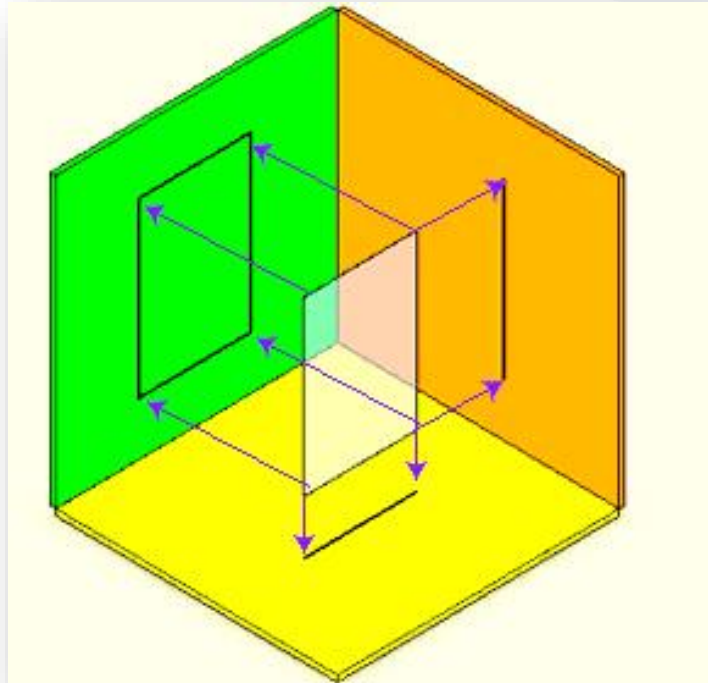
Square plane projection



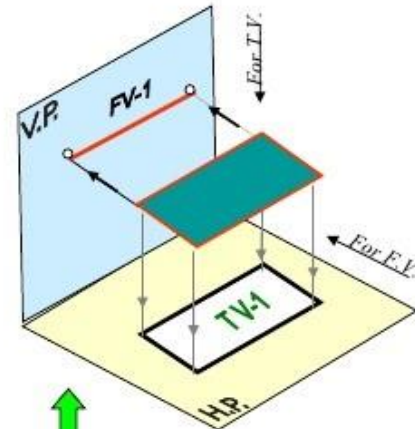
2.A plane perpendicular to VP and parallel to HP



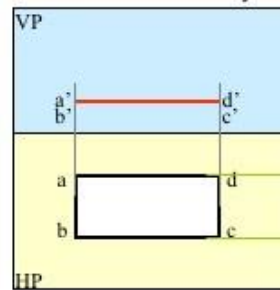
Rectangle projection



SURFACE PARALLEL TO HP
PICTORIAL PRESENTATION

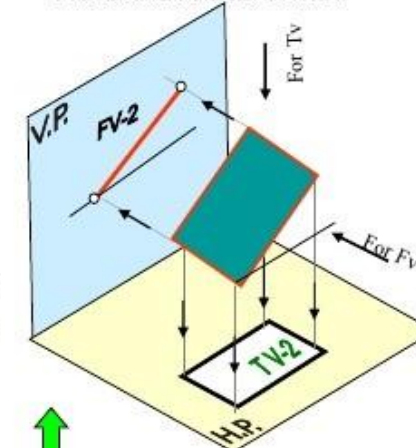


ORTHOGRAPHIC
TV- True Shape
FV- Line // to xy

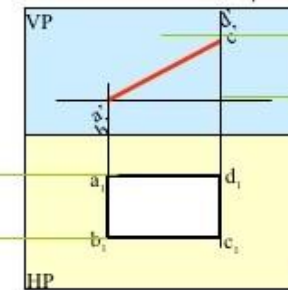


A

SURFACE INCLINED TO HP
PICTORIAL PRESENTATION

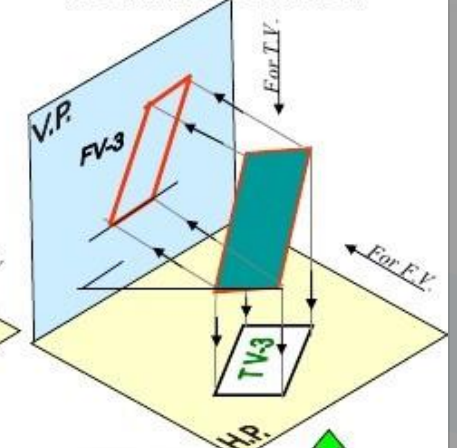


ORTHOGRAPHIC
FV- Inclined to XY
TV- Reduced Shape

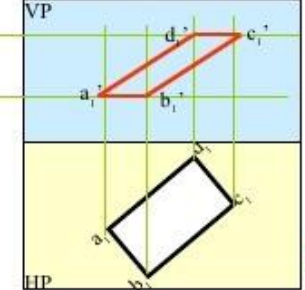


B

ONE SMALL SIDE INCLINED TO VP
PICTORIAL PRESENTATION

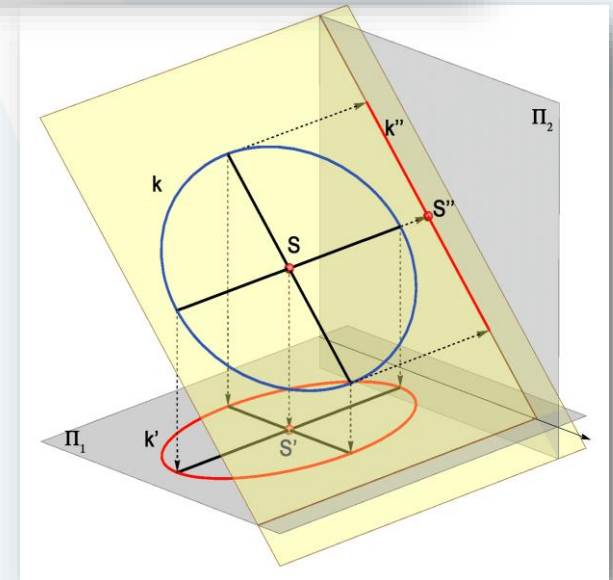
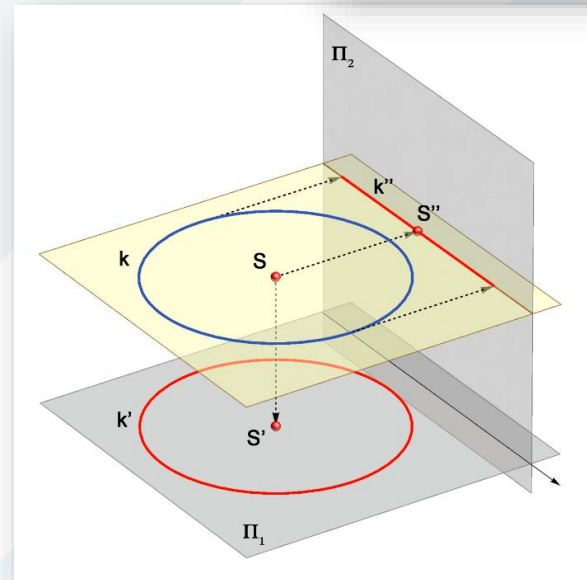
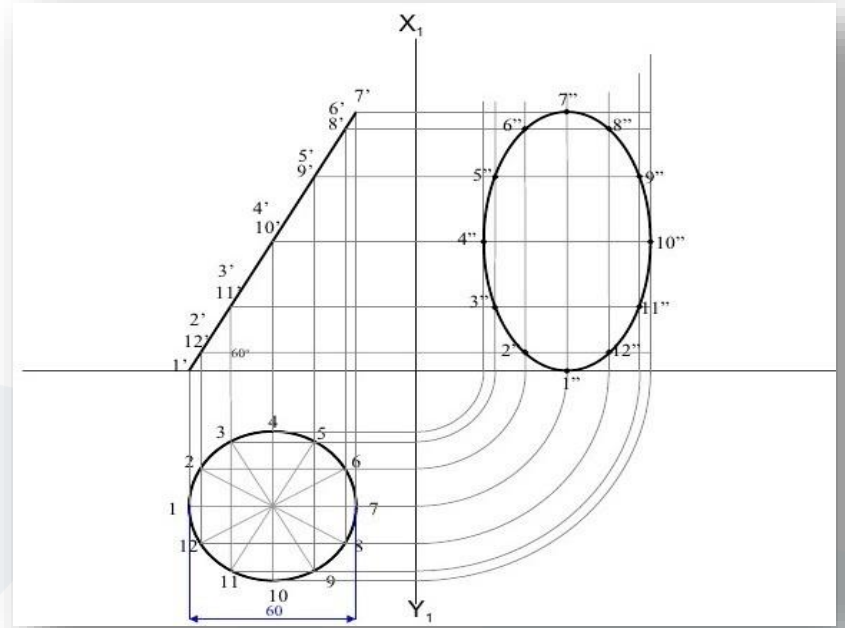
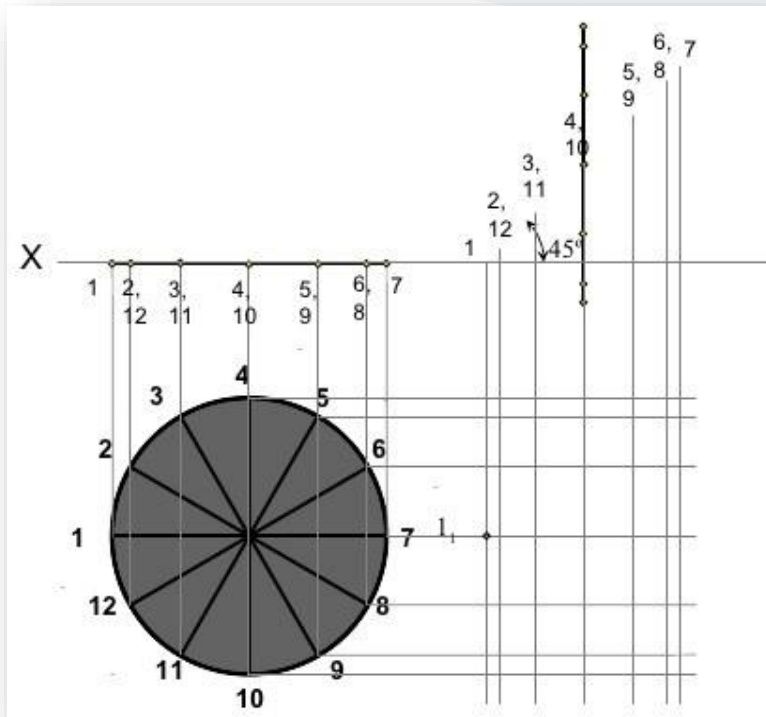


ORTHOGRAPHIC
FV- Apparent Shape
TV- Previous Shape

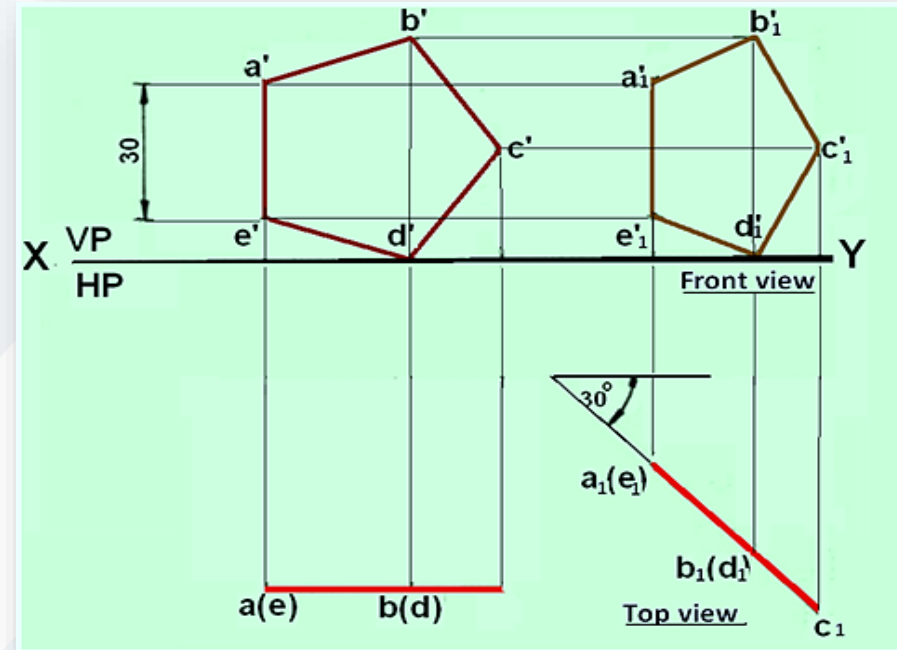
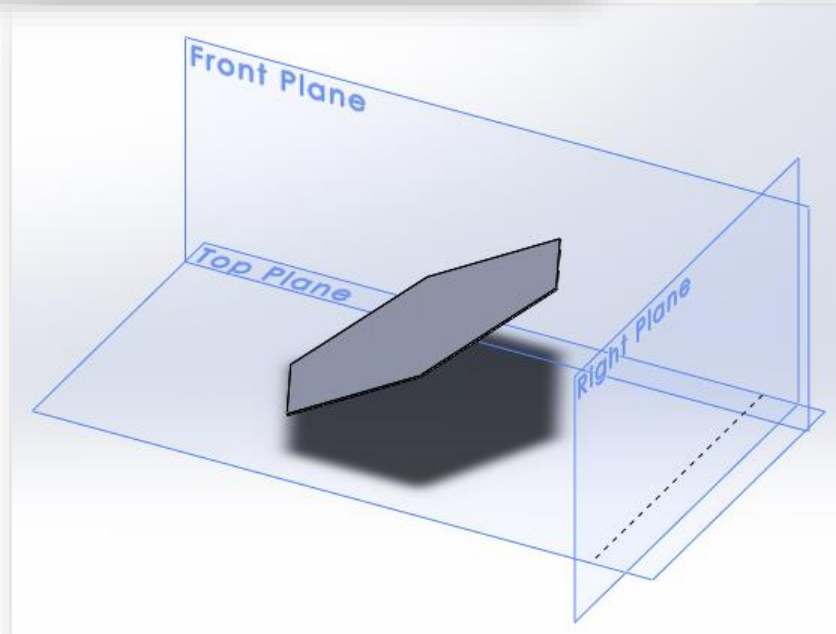
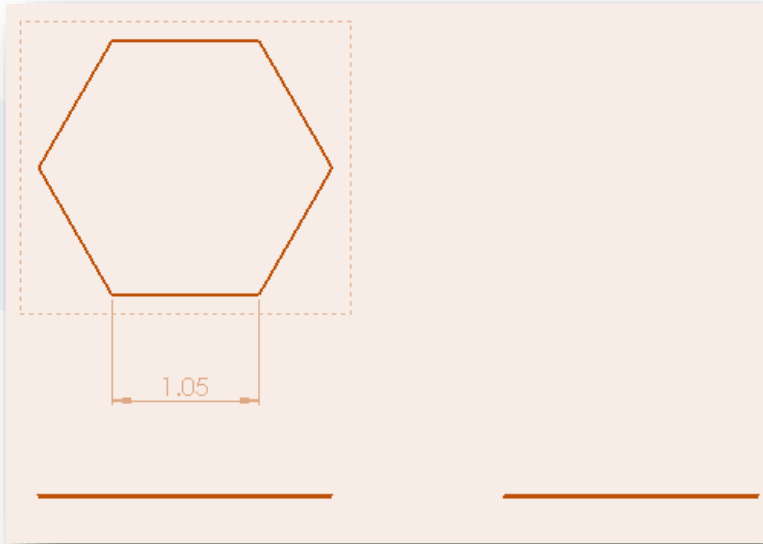


C

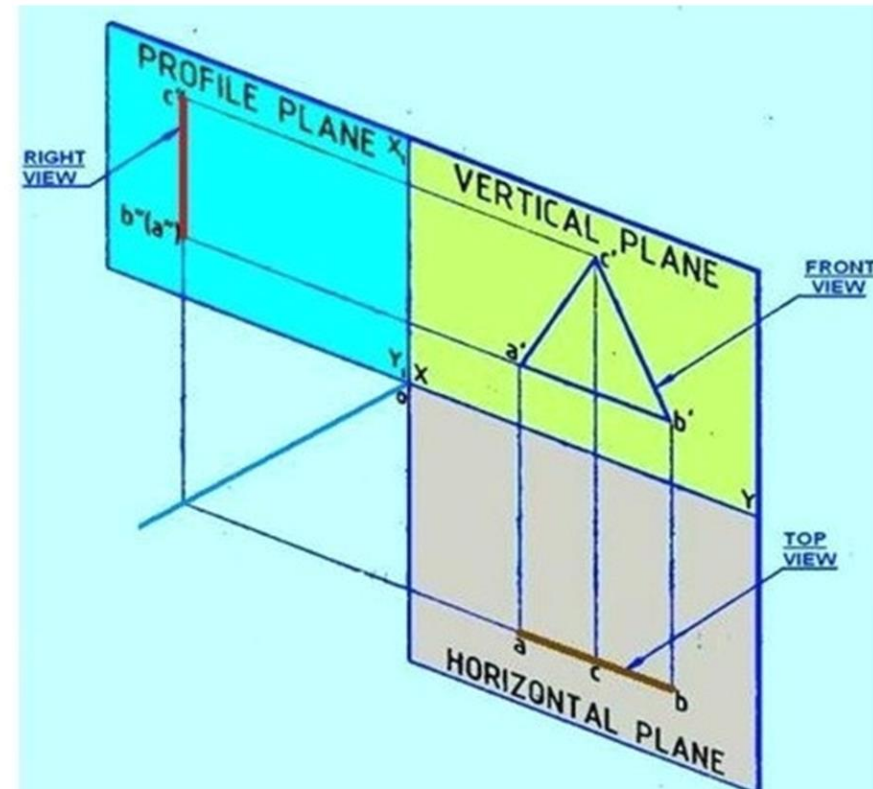
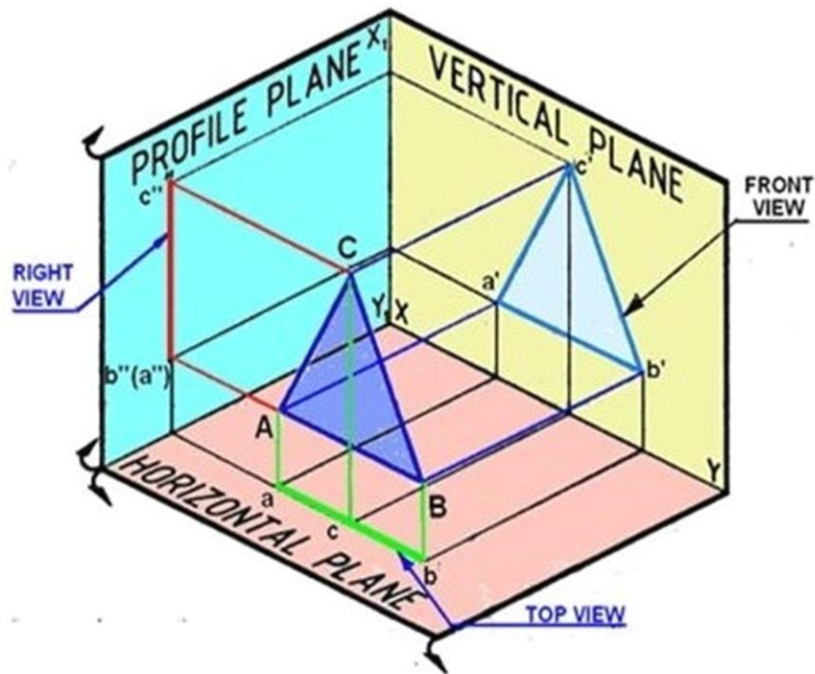
Circle projection



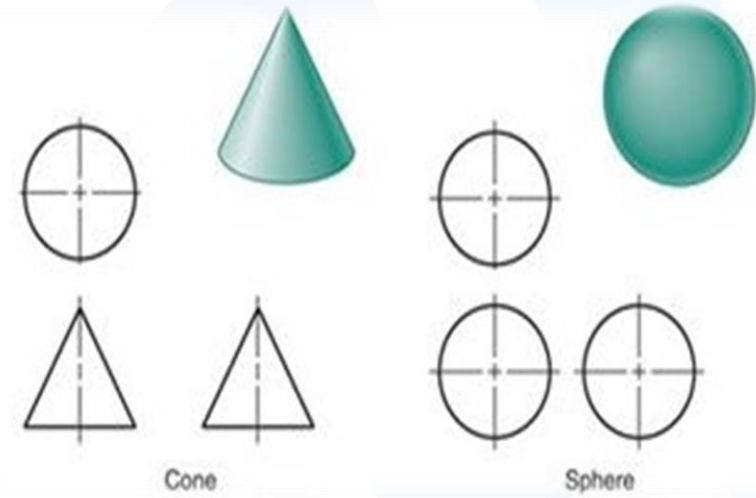
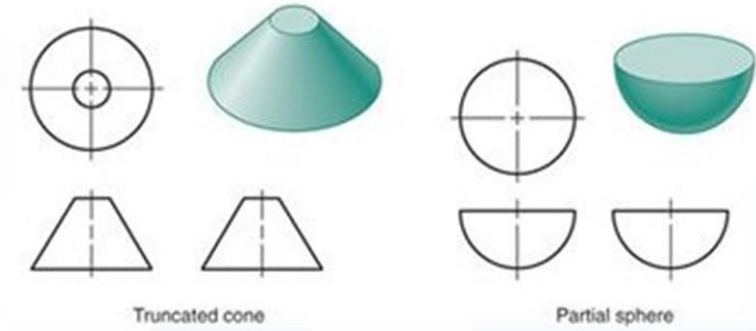
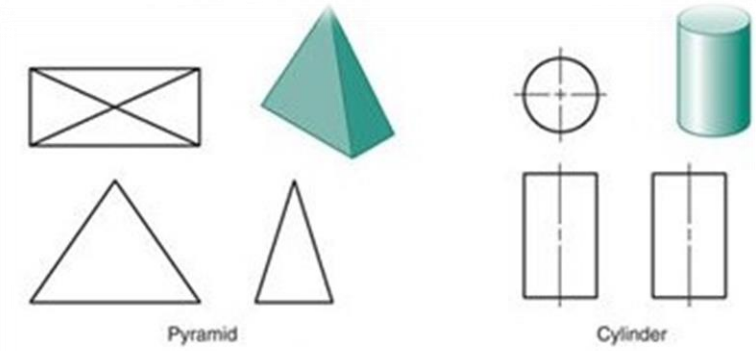
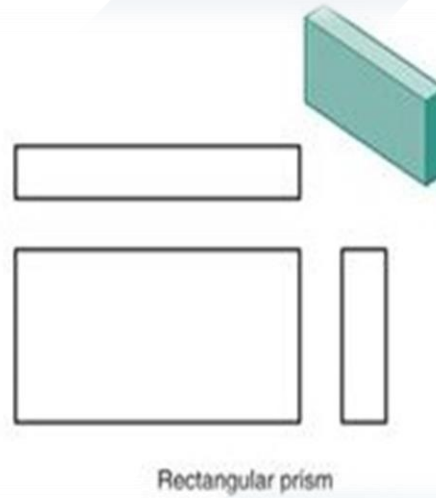
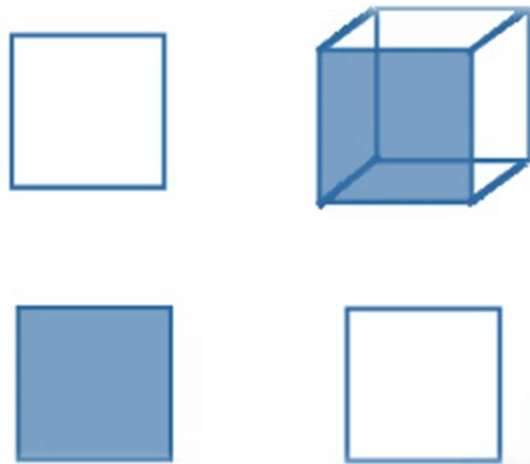
Hexagon projection



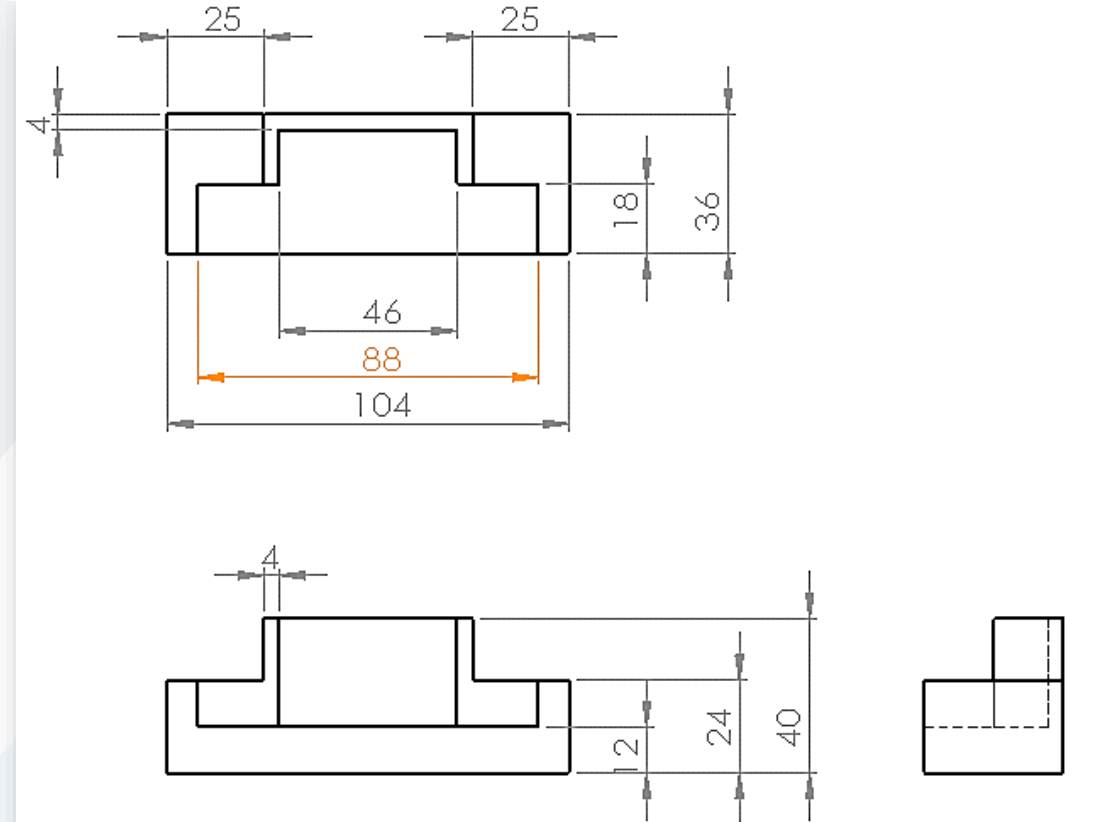
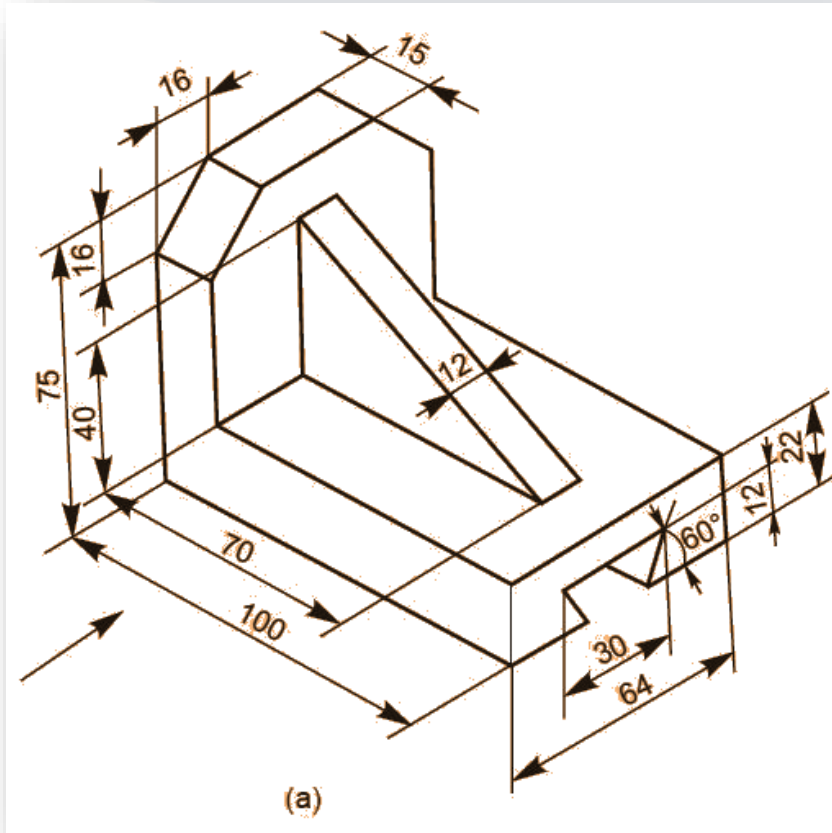
Triangle projection



Multi view drawing



Dimensions



Little space dimension



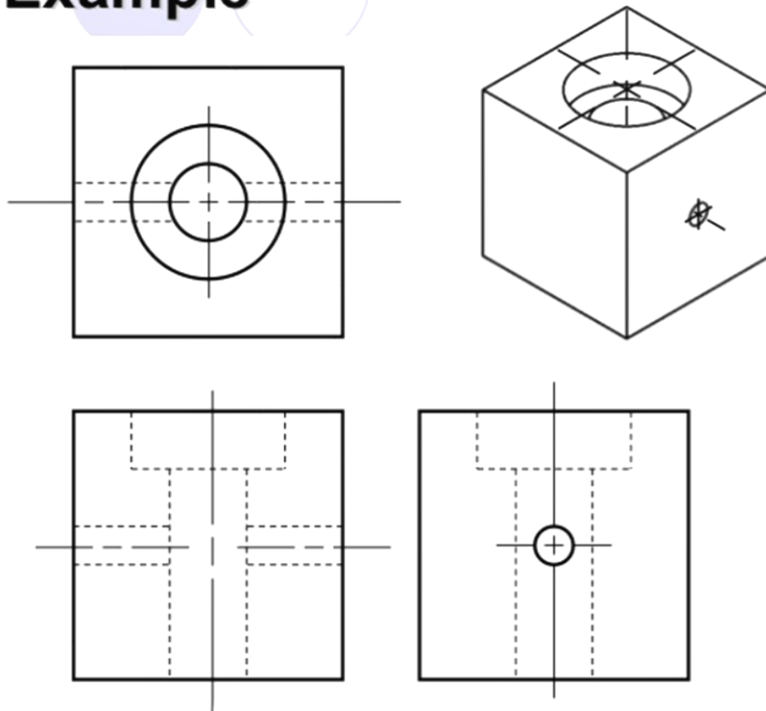


أهم أنواع الخطوط واستخداماتها

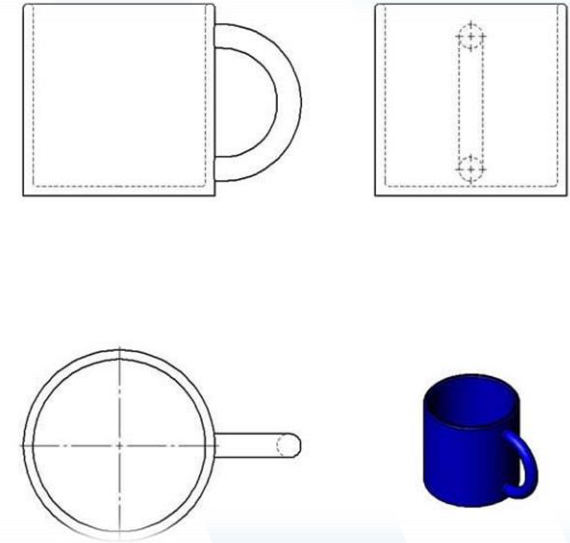
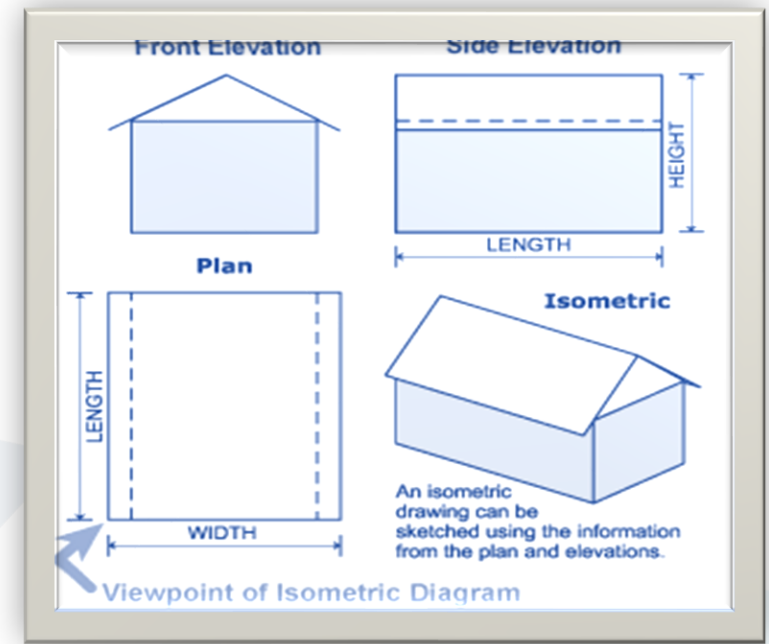
Drawing lines

نوع الخط	مظهر الخط	الاستعمالات
خط سميك مستمر		الحدود الظاهرة للأجسام في المساقط والمناظير
خط رفيع مستمر		خطوط الأبعاد - خطوط التهشير - علامات التشغيل - خطوط تمثيل القلاووظ
خط شرطات قصيرة		الخطوط المخفية للأجسام في المساقط
خط شرطات سميكة		خطوط المستويات القاطعة
خط شرطات طويلة وقصيرة		خطوط المحاور - دوائر الخطوط للتروس
خط متعرج أو شرطة ونقطتان أو متكسر		لبيان حدود الأجزاء أو امتداد الطول في الحالات التي لا تكفي ودقة الرسم لرسمها كاملة

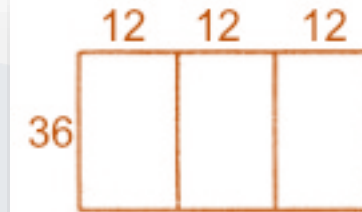
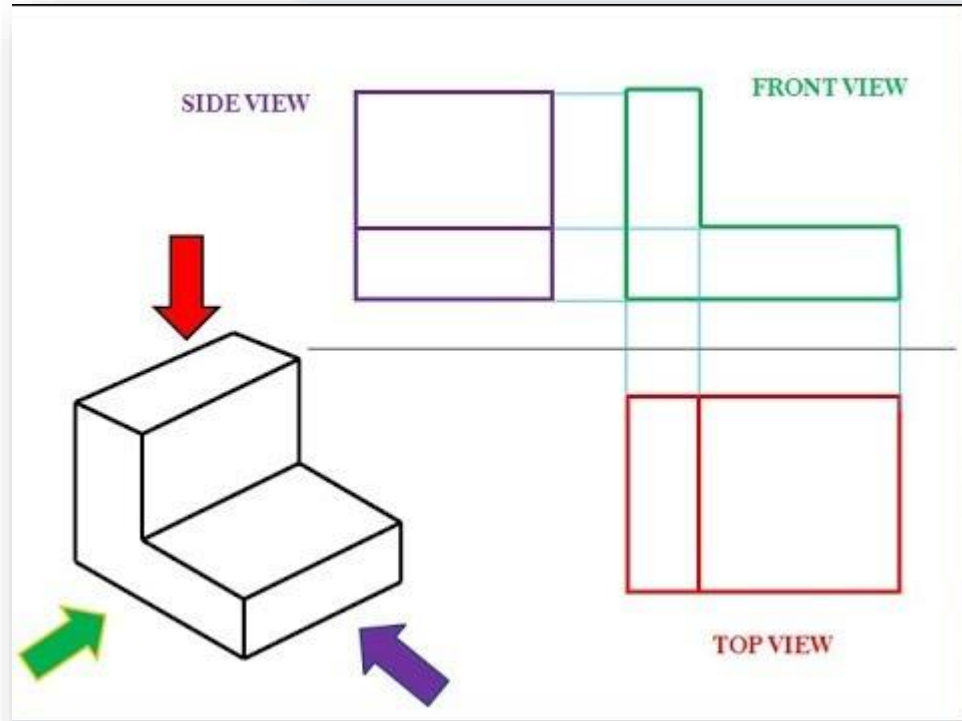
Example



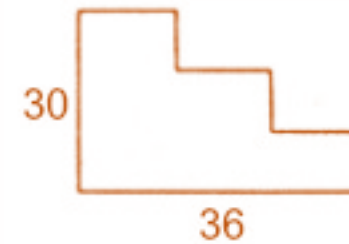
1. Visible
2. Hidden
3. Center



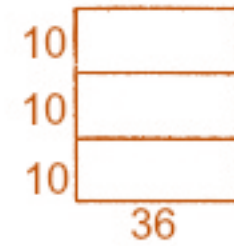
Examples



Top



Front



Right Side

Thanks

The end