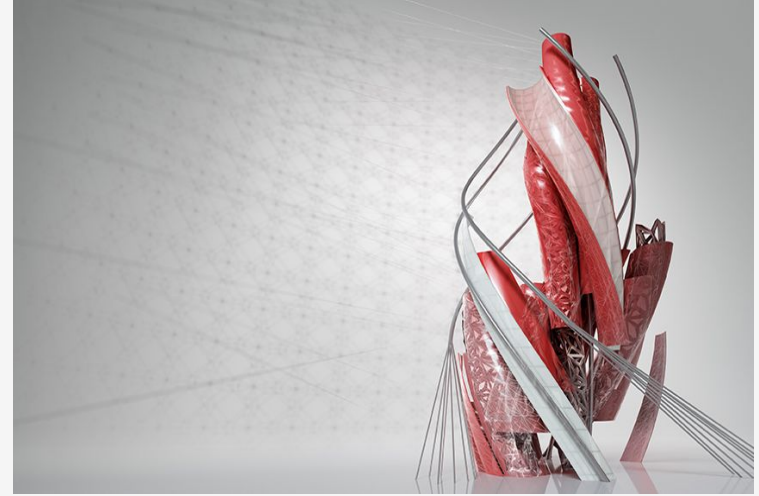




# AUTOCAD



AutoCAD  
Command


---

# LIMIT

## Limits


use to specify drawing area.

- Limits ☐
  - First corner point : 0,0 ☐  
(X,Y)
  - Second corner point :  
100',100' ☐

Reset Model space limits:  19.4916  
Specify lower left corner or 

Command: LIMITS

Reset Model space limits:

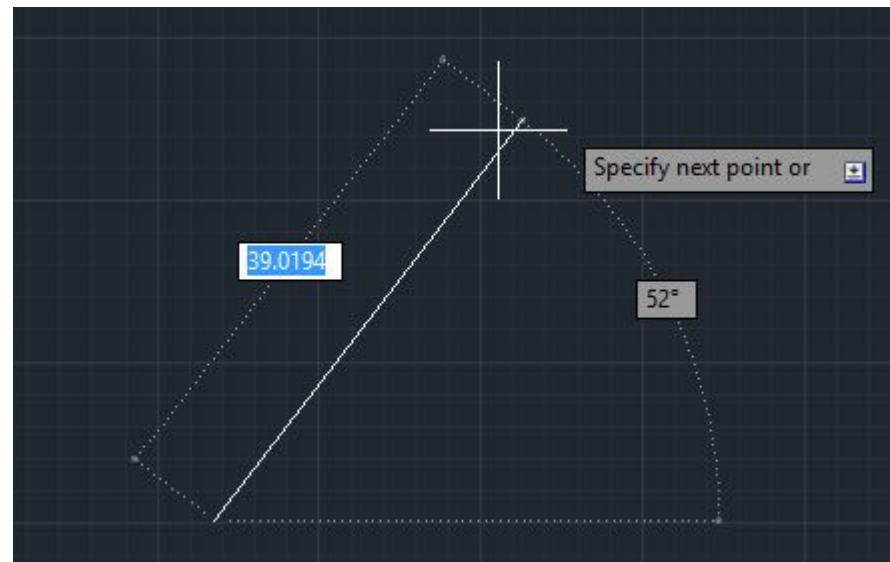
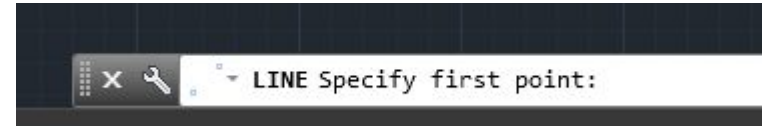
   LIMITS Specify lower left corner or [ON OFF] <0.0000,0.0000>:

# LINE

## Line

use to make line

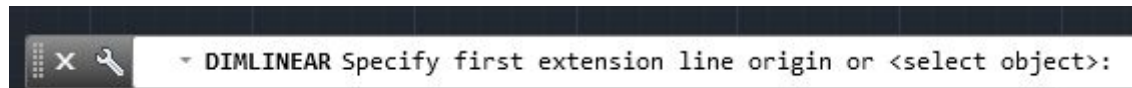
- Command: L ☐
- Specify First Point
- give distance value ☐
- Or ( Click on next Point)



# DIMLINER

Use to measure horizontal line

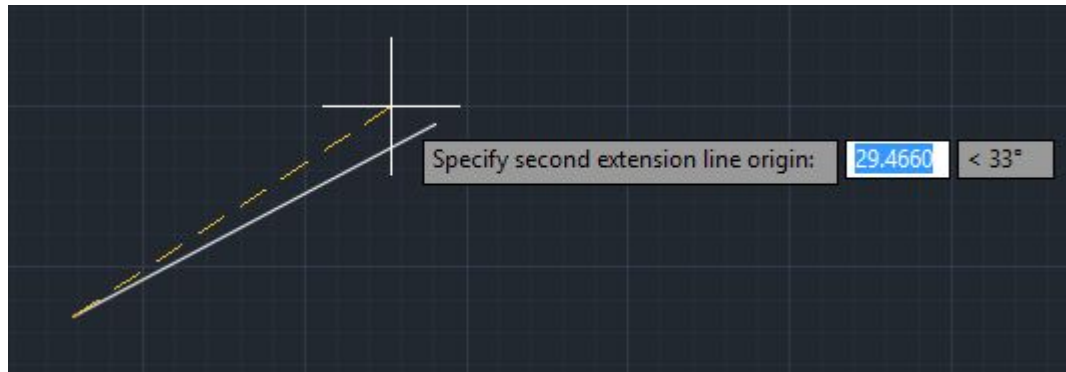
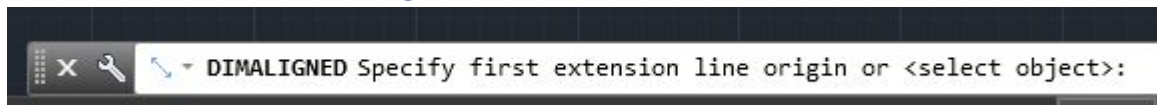
- Command: DIMLIN ☐
- Select first extension line origin
- Select second extension line origin



# DIMALIGNED

Use to measure vertical or aligned line

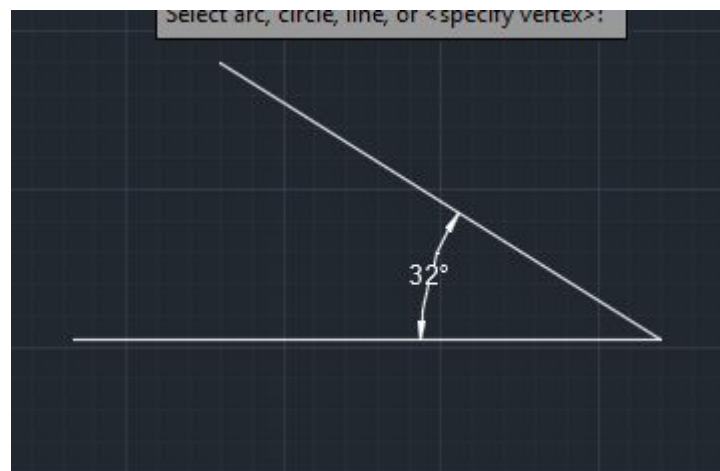
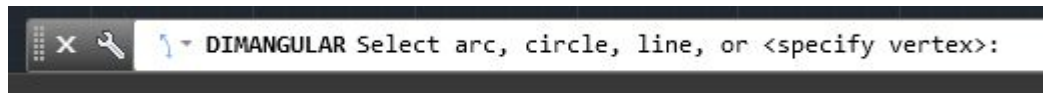
- Command: DIMALIGNED ☐
- Select first extension line origin
- Select second extension line origin



# DIMANGULAR

Use to measure angle between any two line

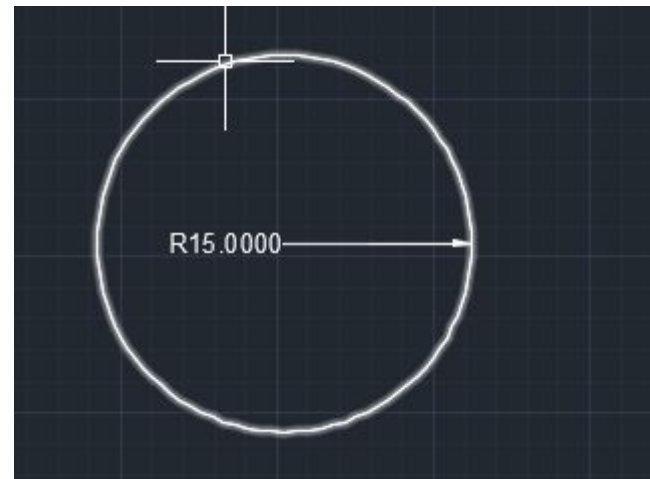
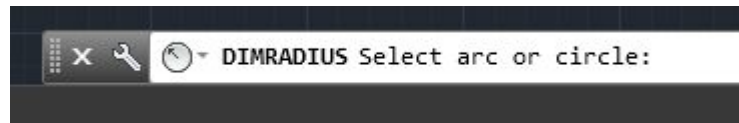
- Command: DIMANG ☐
- Select first line
- Select second line.



# DIMRADIUS

Use to measure radius of circle.

- Command: DIMRAD ☐
- Select arc or radius.



# DIMSTYLE

## □ To Modify the Dimension Style

□ *Command: D* □

□ *Select the Dimension Style*

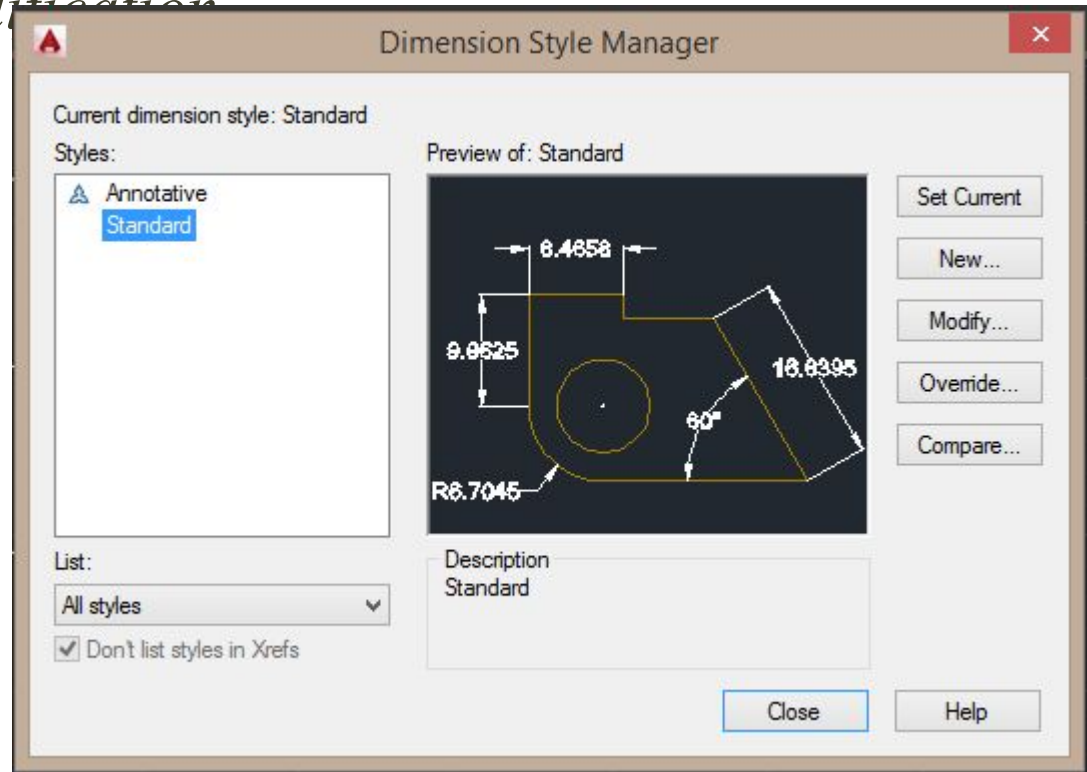
□ *Click Modify*

- *change the style modification*

- *Ok*

- *Set current*

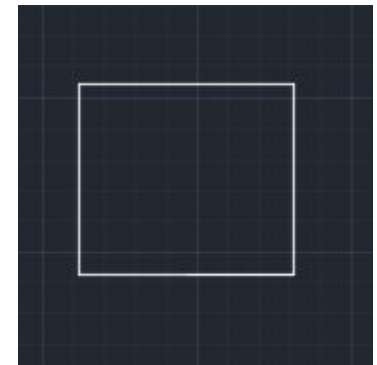
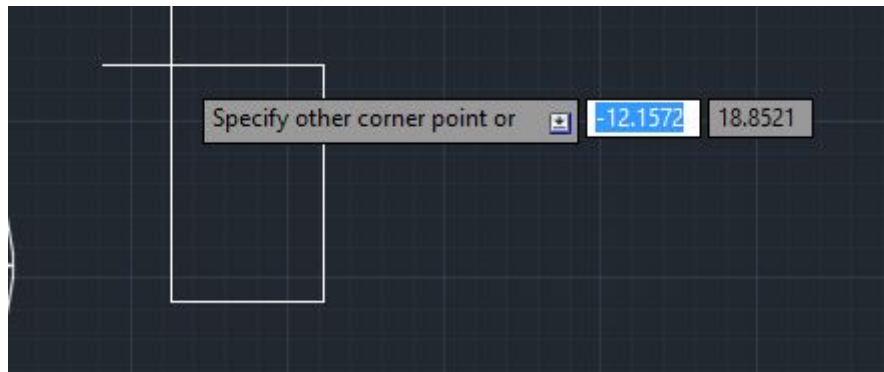
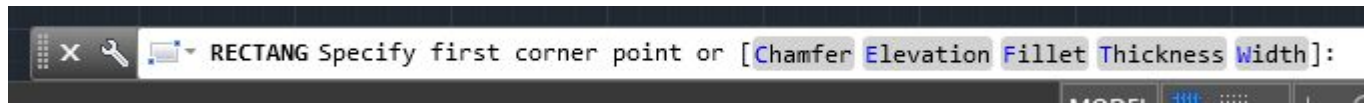
- *Close*





# RECTANGLE

- Rectangle
- Use to make rectangle
  - Rec □
    - Specify 1<sup>st</sup> Corner for Rectangle
    - D □ (For Dimension)
    - Define the length value □
    - Define the width value □
    - Click on screen place the Rectangle

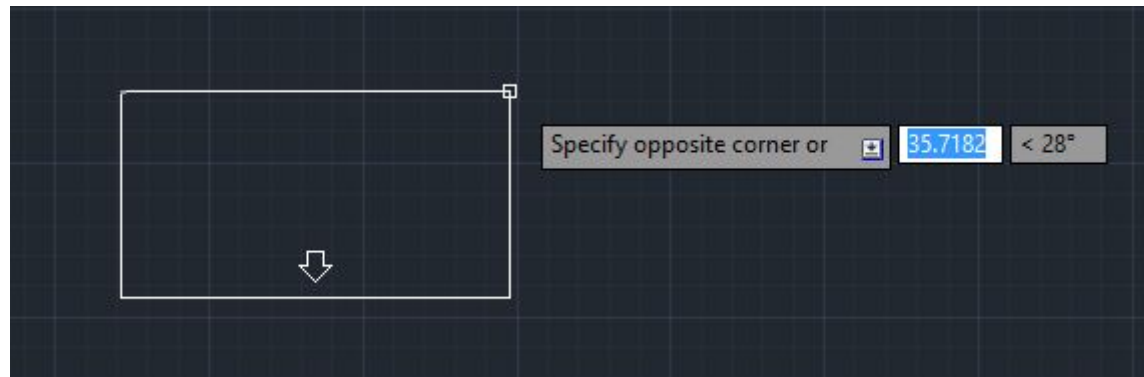
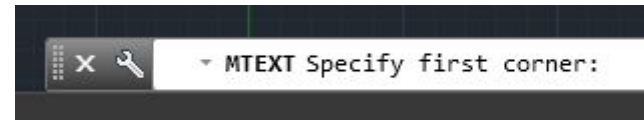


# MULTILINE TEXT

## □ For Multiline Text

- Mt↵
- Specify first corner for text window
- H↵ ( Height of text )
- W↵ ( width of the writing space )
- Write the required text
- Press “Close Text Editor” to terminate from command.

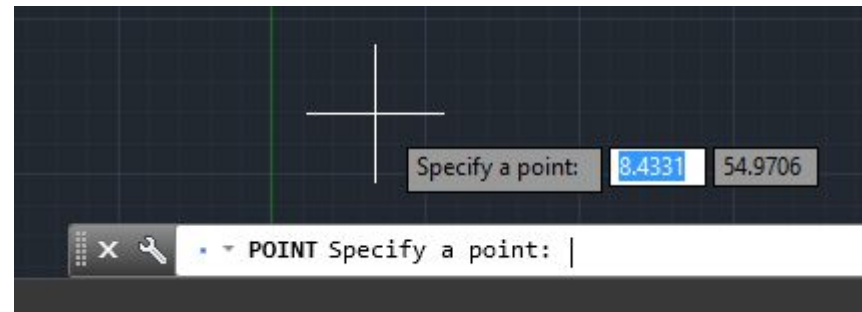
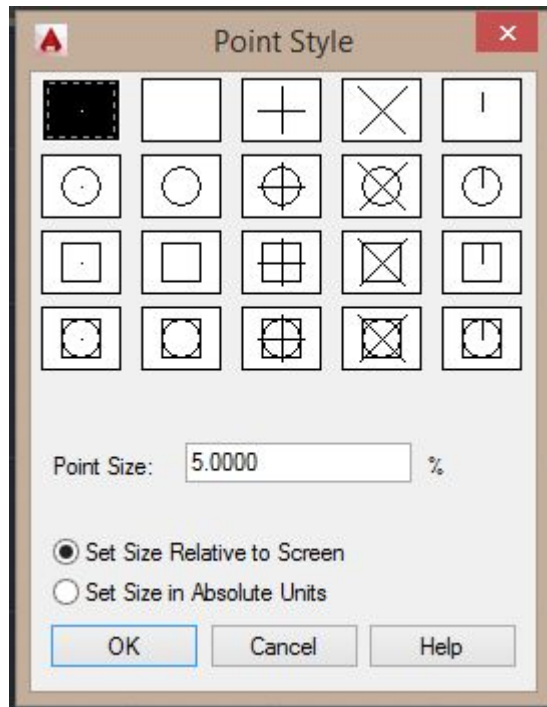
Note : We can apply all text editing tools as we do in Word files



# POINT

## POINT & POINT STYLE

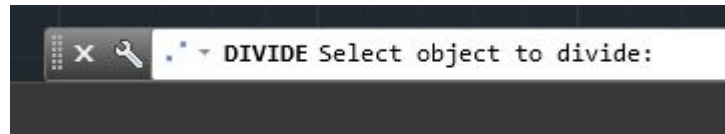
- FOR POINT
  - Command: Po ↵
  - Specify a point
  - Draw menu → Format → Point style



# DIVIDE

Use to divide any object to number of segment

- Command: Div ↵
- Select object
- Give no of segments

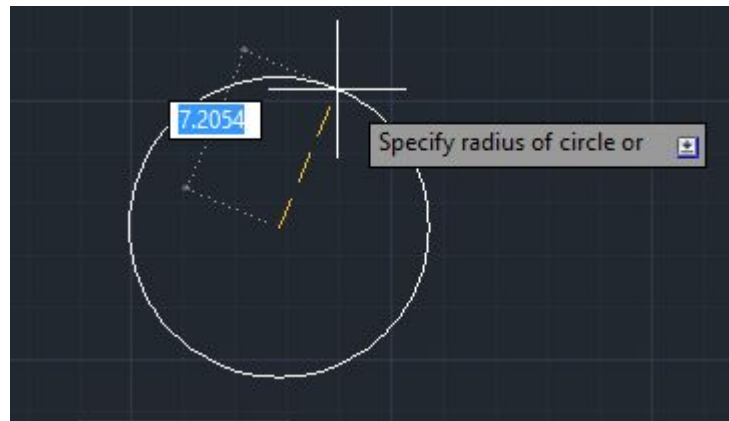
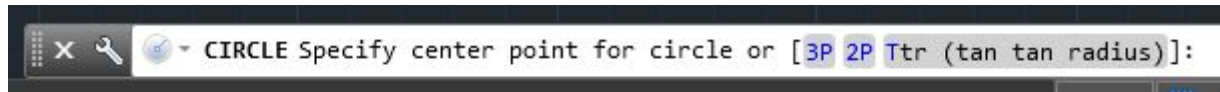


# CIRCLE

## ❖ Circle

Use to make circle

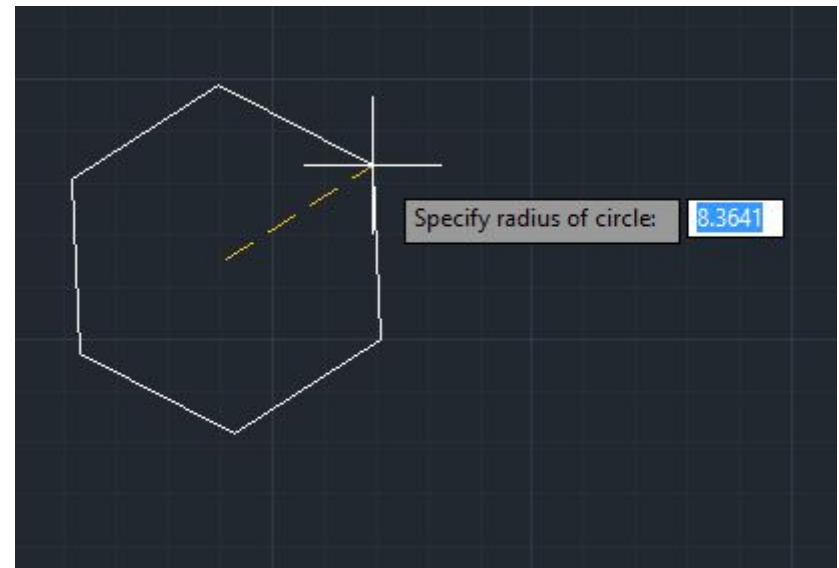
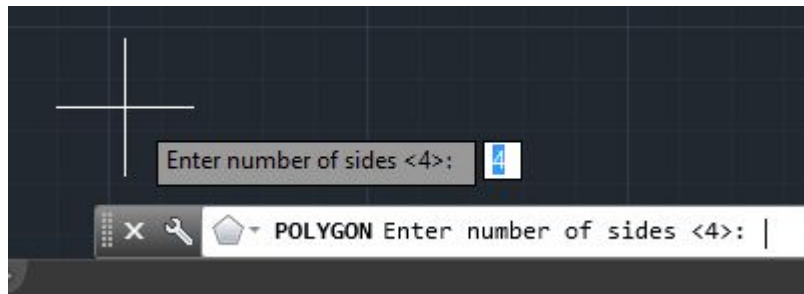
- Command: C ☐
  - Click Center Point
  - Specify Radius value ☐ (Dimension -D ☐ )



# POLYGON

❖ Use to create polygon of any side

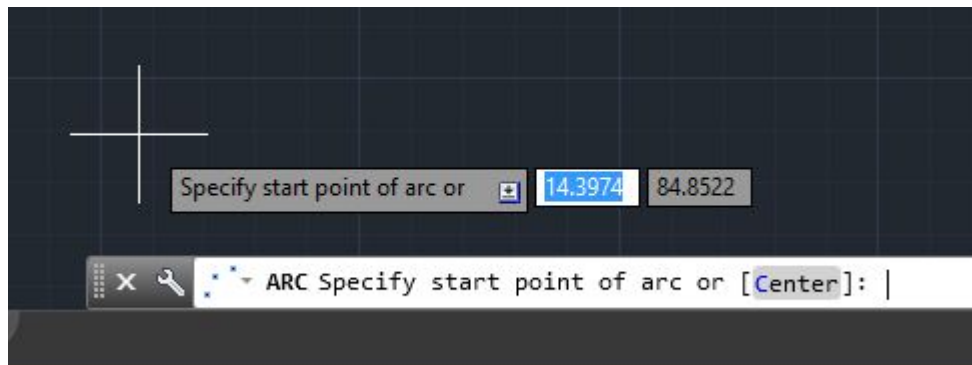
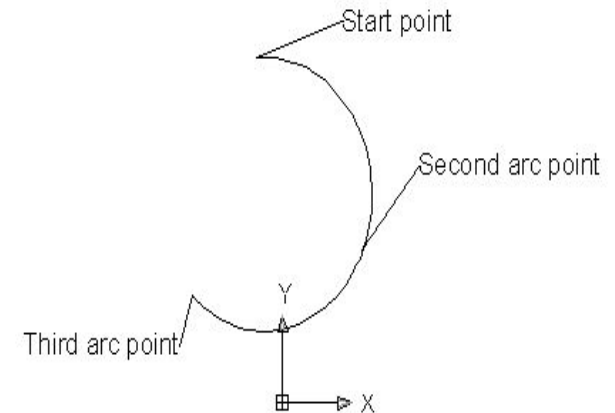
- Command: Pol ☐
- Give number of sides.
- Specify center of polygon.
- Choose option inscribed in circle or circumscribed about circle



# ARC

Use to make arc

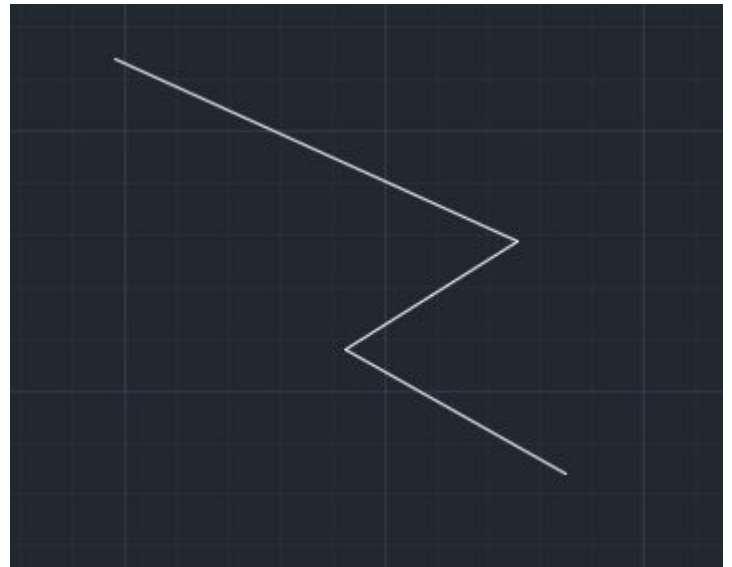
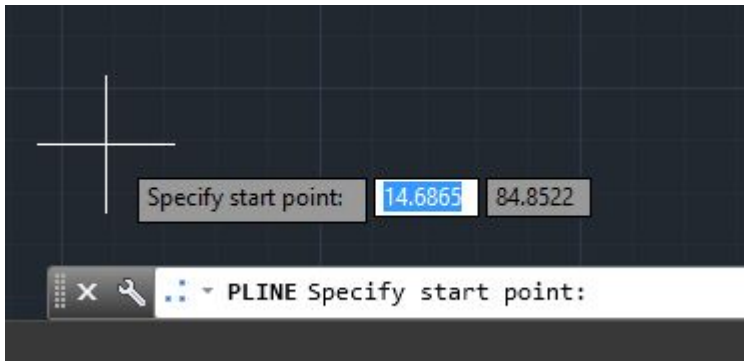
- Command: A ↵
- Specify start point
- Specify second point of arc
- Specify end point of arc



# POLYLINE

Use to make different lines with single entity

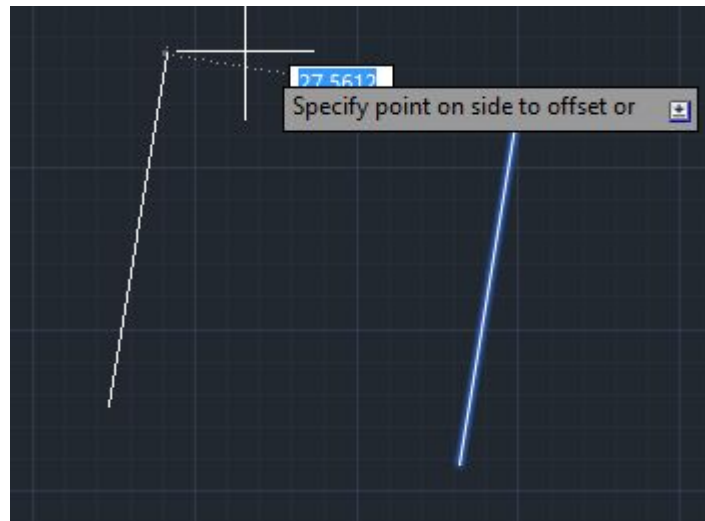
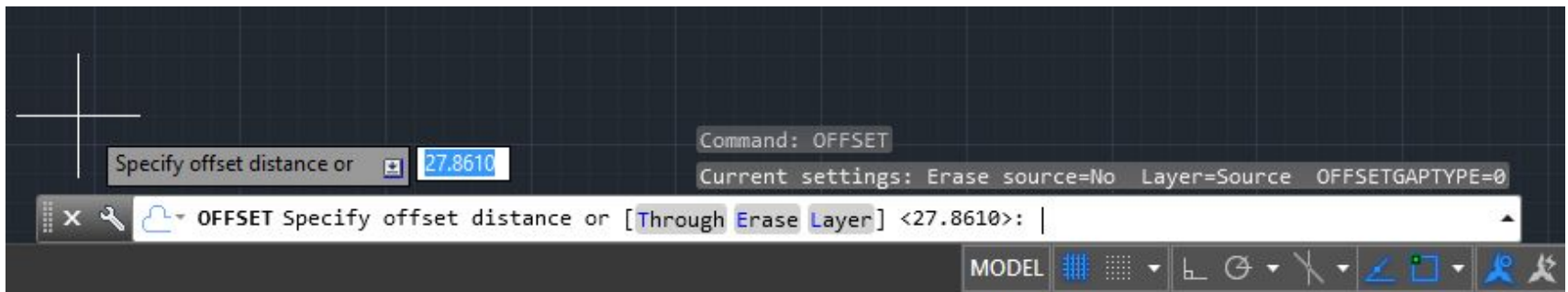
- Command: Pline ☐
- Select first point.
- Select next point.
- Select next point till we want to make line
- ☐





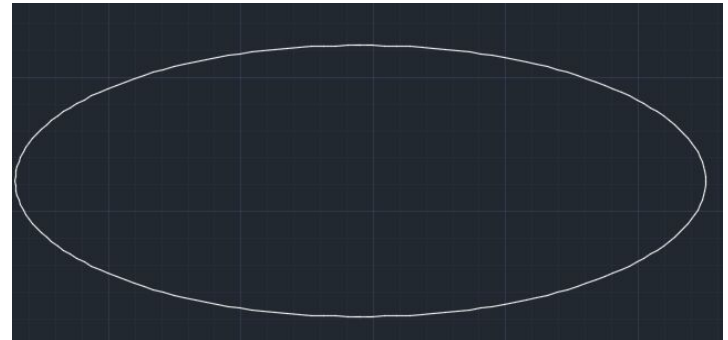
# OFFSET

- ❖ Use to make parallel object at the given distance
  - Command: O □
  - Specify Offset Distance □
  - Select object
  - specify distension / direction



# ELLIPSE

- Command: EL↵→C↵
- specify the center point
- define the 1st radius value ↵
- define the 2nd radius value ↵



- Use – to make ellipse.

ELLIPSE Specify axis endpoint of ellipse or [Arc Center]:

ELLIPSE Specify center of ellipse:

ELLIPSE Specify endpoint of axis: |

ELLIPSE Specify distance to other axis or [Rotation]:

# CHAMFER

- Command: Cha ↵
- D ↵ ( For Chamfer Distance )
- Specify first chamfer distance ↵
- Specify second Chamfer distance ↵
- Select first line to chamfer
- Select second line to Chamfer



- Use – For chamfering the sharp corner of the objects

CHAMFER Specify first chamfer distance <50.0000>:

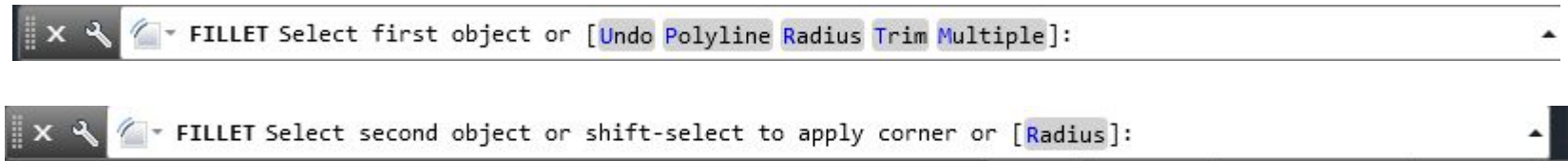
CHAMFER Specify second chamfer distance <50.0000>:

CHAMFER Select first line or [Undo Polyline Distance Angle Trim mEthod Multiple]:

CHAMFER Select second line or shift-select to apply corner or [Distance Angle Method]:

# FILLET

- F ↵
- R ↵ ( For radius of fillet)
- Specify fillet radius value ↵
- Select first object
- Select second object
- Use – To for making the corner round



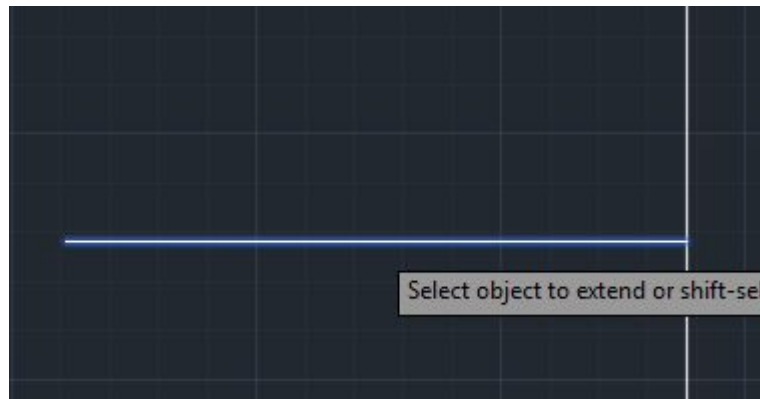
# TRIM

- Command: Tr ☐ ☐
- Select the unnecessary part.
- Note : profiles must be intersected
- Use- To cut unnecessary part



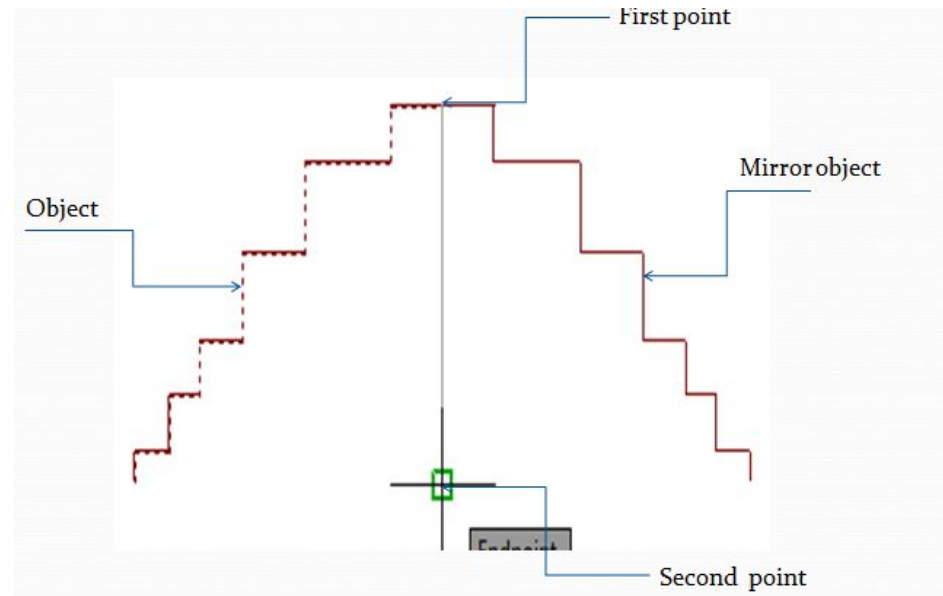
# EXTEND

- Command: Ex ☐ ☐
  - 
  - Select the line to extend
  - Note : There must be a boundary.
- 
- Use – To lengthen object to fix boundary



# MIRROR

- Mi ↵
- Select object ↵
- Select first point of mirror line
- Select second point on mirror line
- Delete the source object (Y/N) ↵



# COPY

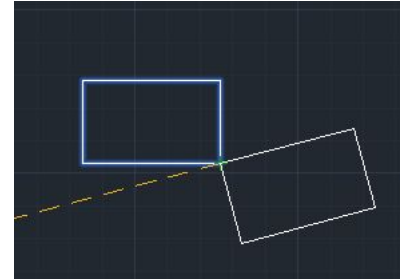
- Command: Co ☐
- Select Object ☐
- Select Base Point
- Specify the destination point
- Use – To copy the object .





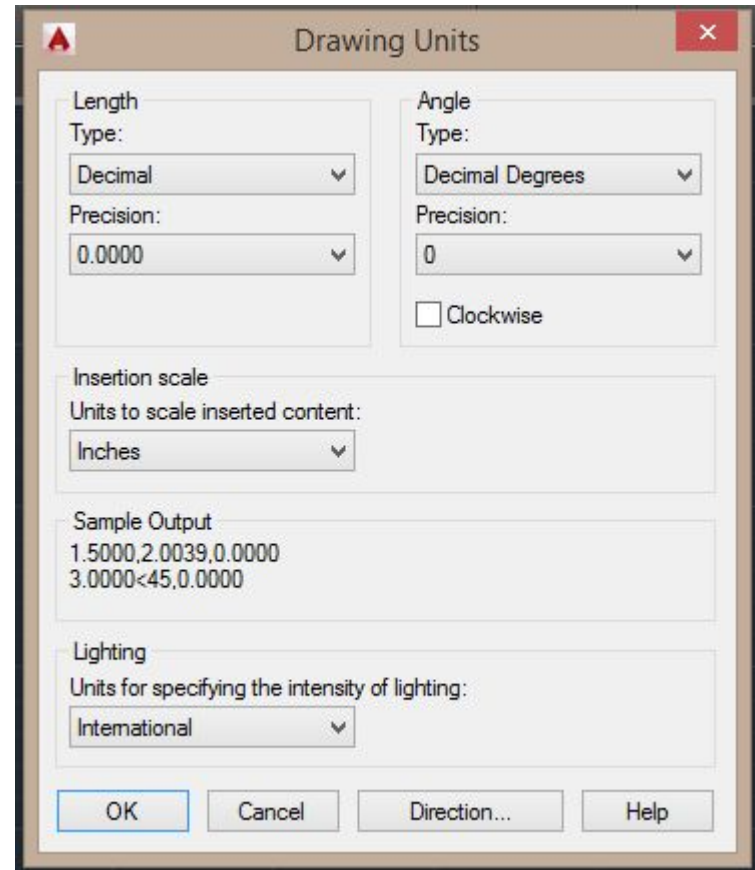
# ROTATE

- Command: Ro ☐
- Select object ☐
- Select Base Point
- Specify Rotation Angle ☐
- Use –To rotate object about a fix point.



# UNITS

- Command: Un ☐
- Type : engineering
- Precision : 0'.0"
- Scale : inches
- OK



# MOVE

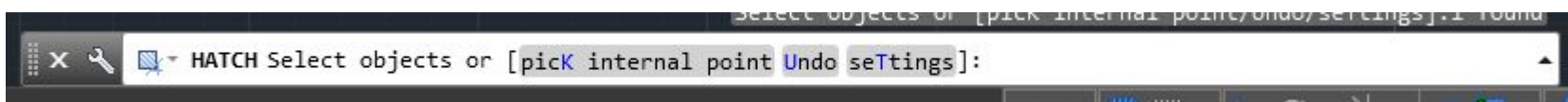
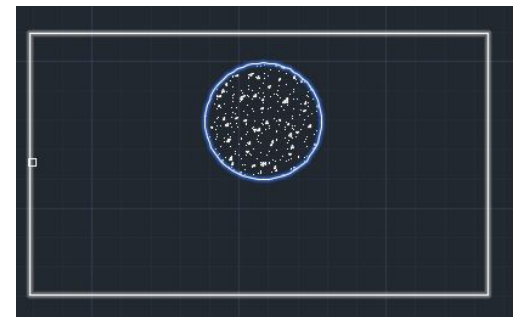
- Move
- Command: M ☐
- Select object ☐
- Select base point
- Specify the destination point

Use - To move objects from one place to another place.



# HATCH

- H↵
  - Select Add pick point
  - Click on object
  - Select required pattern
  - Change the hatch color, background color,
  - change on angle,
  - Change scale value according to requirement
  - Close
- 
- Use – To separate one object from other object by hatching



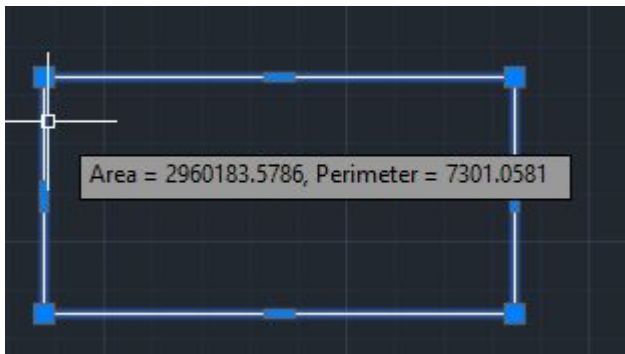
# ARE

## A

- Area
- Command: AA
- O
- Select the object
- Use – To calculate area and perimeter of any closed figure.

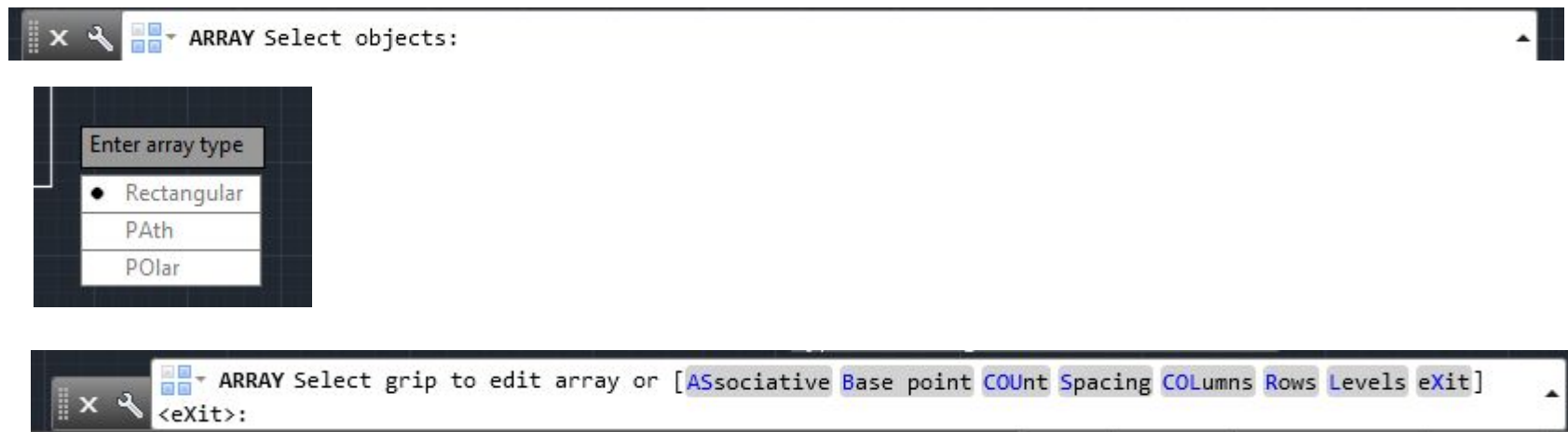
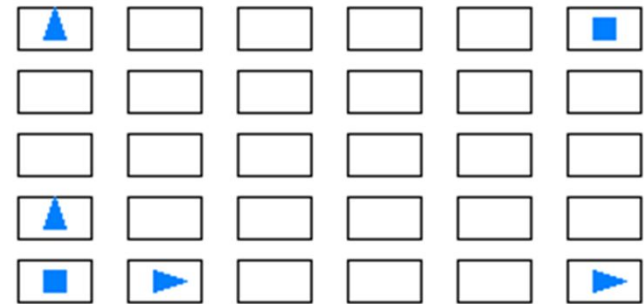
AREA Specify first corner point or [Object Add area Subtract area] <Object>:

AREA Select objects:



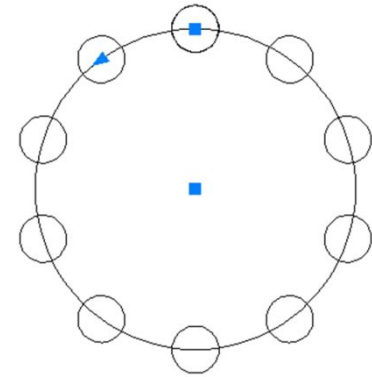
# RECTANGULAR ARRAY

- Command: Ar ↵
  - Select the object ↵
  - Select the type of array r ↵
  - Col ↵
  - Sepecify no.of col ↵
  - Specific distance between col
  - Specify no.of row R ↵
  - Specific distance between row
- 
- use –To creat similar object in rectangular form.



# POLAR ARRAY

- Command: Ar ↵
  - Select the object ↵
  - Select the type of array Po ↵
  - Specify centre point of array
  - I(items) ↵
  - Enter no. of items ↵
- 
- use –To create similar object in around a point.



Type = Polar Associative = Yes

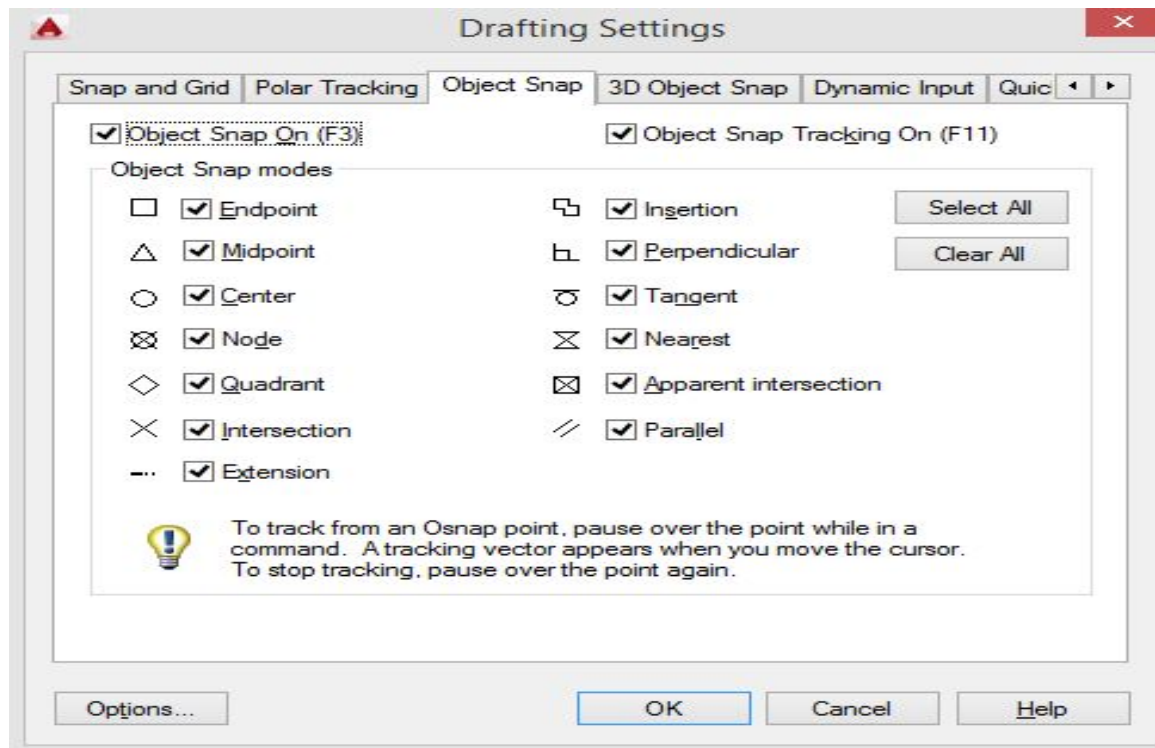
ARRAY Specify center point of array or [Base point Axis of rotation]:

ARRAY Select grip to edit array or [Associative Base point Items Angle between Fill angle ROWs Levels

ROTate items eXit] <eXit>:

## USE TO CHANGE THE SETTING OF OBJECT SNAP

- Command -: DS
- Press DS and Enter
- Click on Object Snap
- Press on Select All option

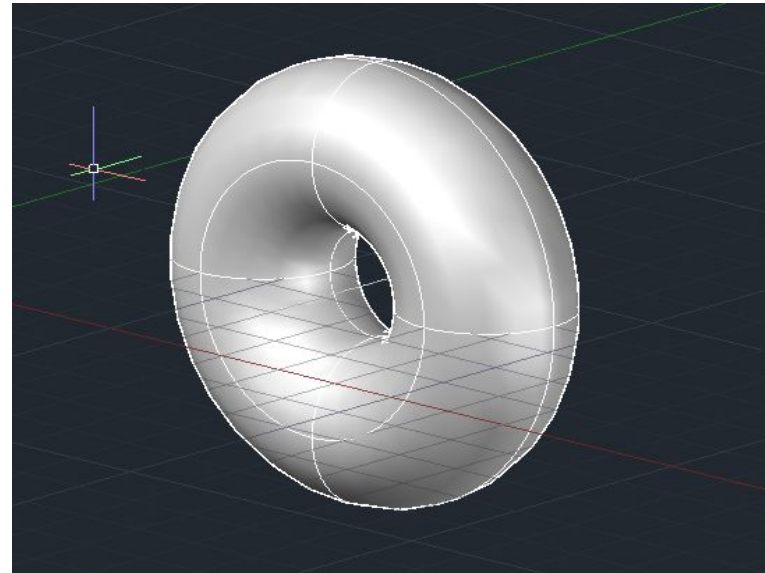
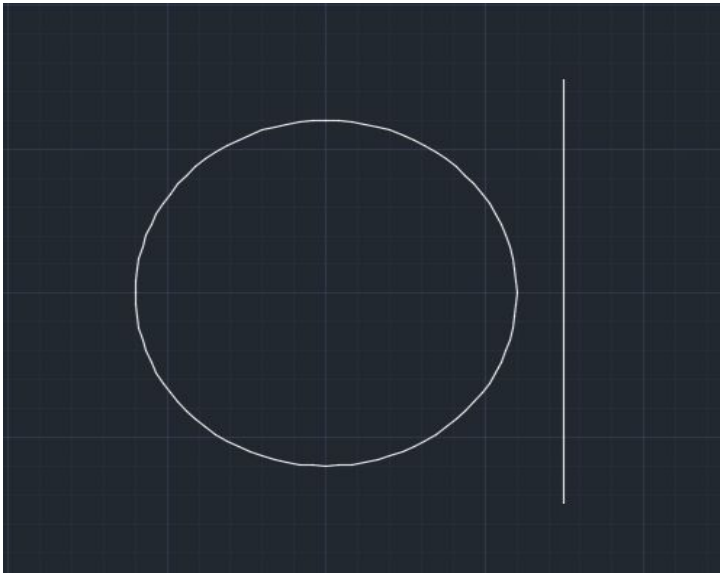




# REVOLVE

## USE TO REVOLVE AN OBJECT

- Command-: REV
- Select The Object
- Select a reference point
- Press enter



## USE TO BREAK THE LINE

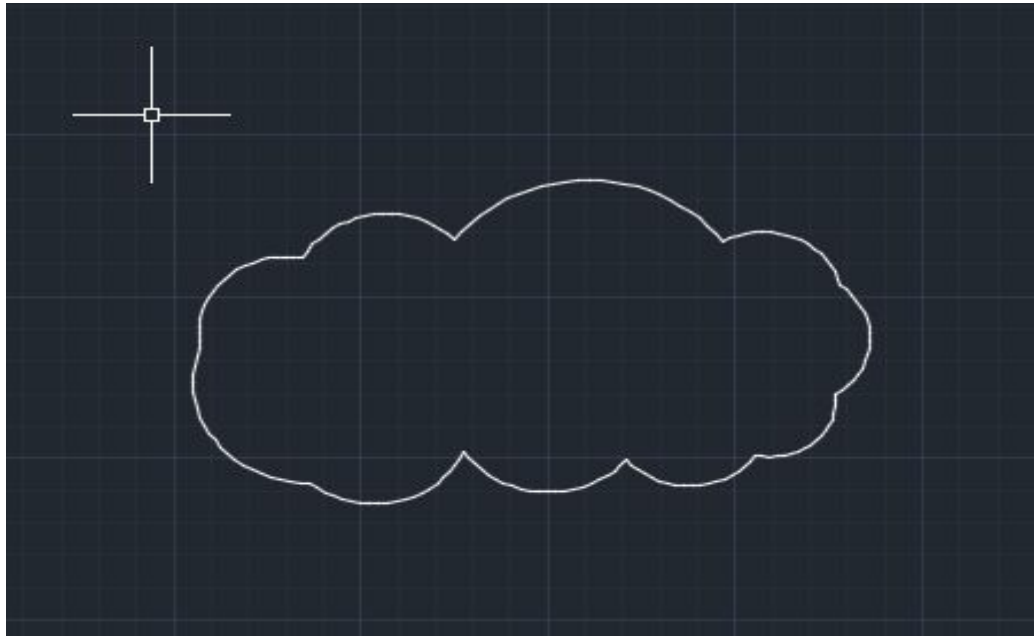
• Command-: BR

- Select The object to Break
- Select The Starting Point
- Select The End Point
- Press Enter



## USE TO MAKE CURVE FIGURES

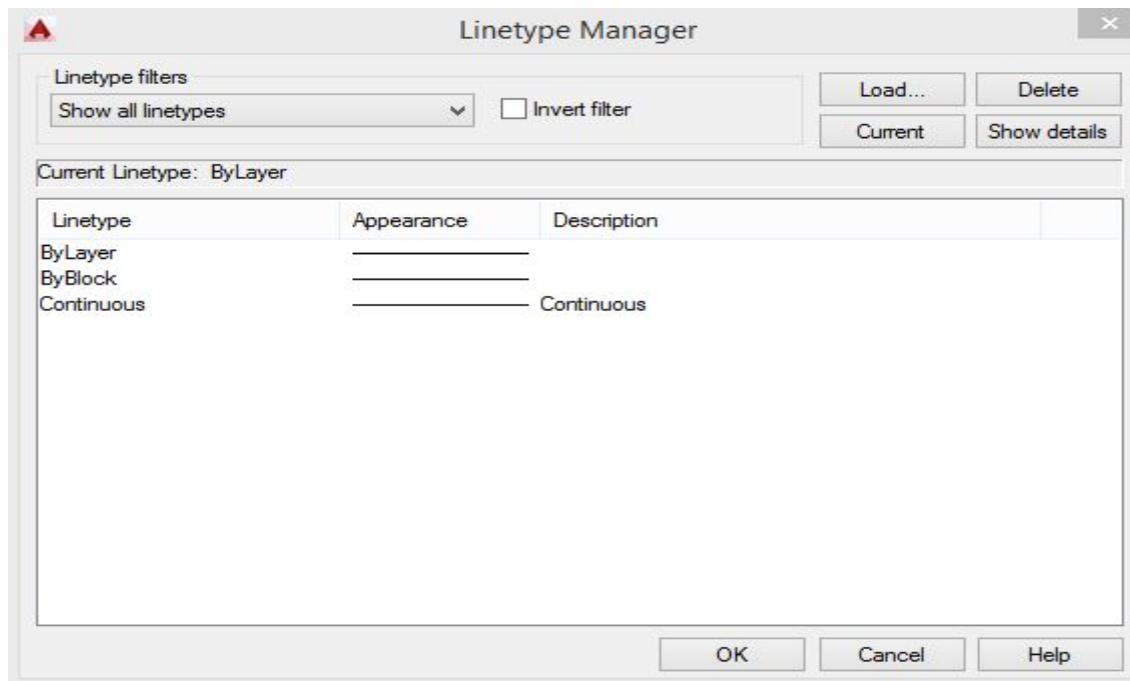
- Command-: REVCLOUD
- Select The Starting Point
- Select The Guide Crosshairs Space
- Coincide The End Point to Starting point



# LINE TYPE

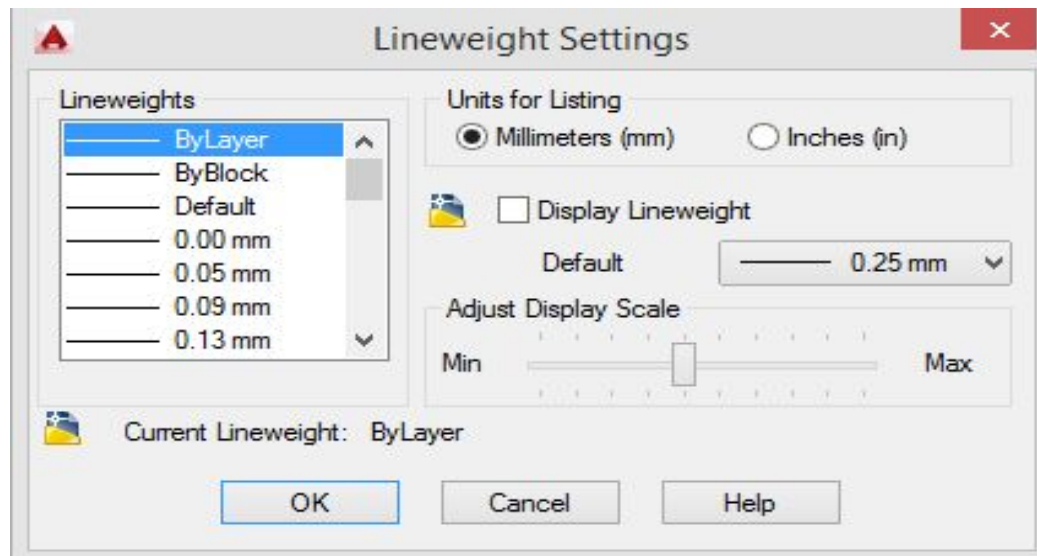
## USE TO MAKE DIFFERENT TYPES OF LINES

- Command-: LINETYPE
- Go to Line type command
- Select any type of line
- Set Current and Press Enter



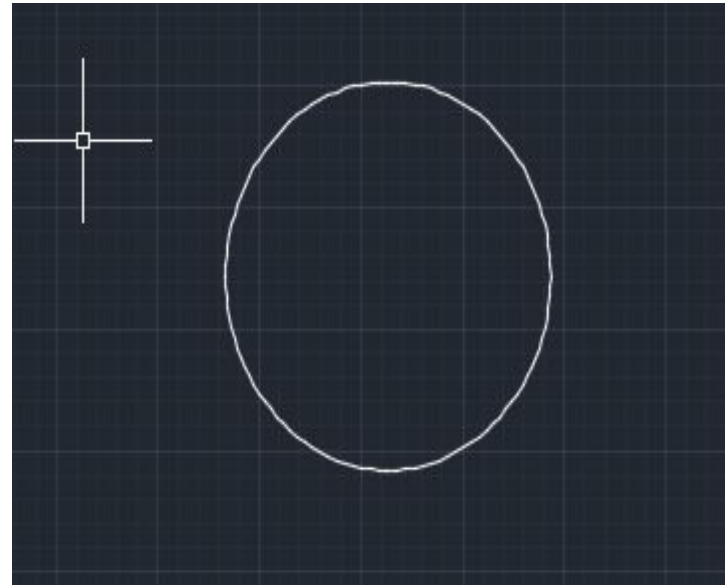
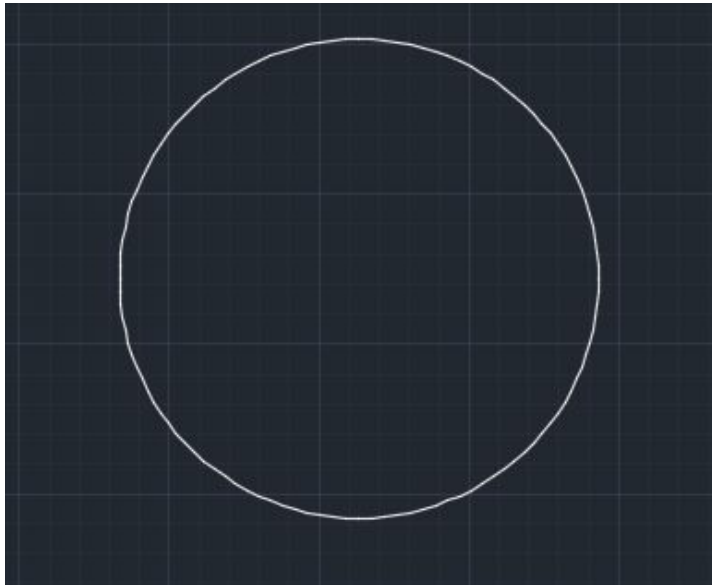
## USE TO BROADEN THE LINE

- Command-: LWEIGHT
- GO To LINEWEIGHT Command
- Select any Type of Line and Thickness
- Press ok



## USE TO EXTEND THE SHAPE BY FIXING A POINT

- Command-: SC
- Select The Object
- Select The Fixed Point
- Extend as Per Require



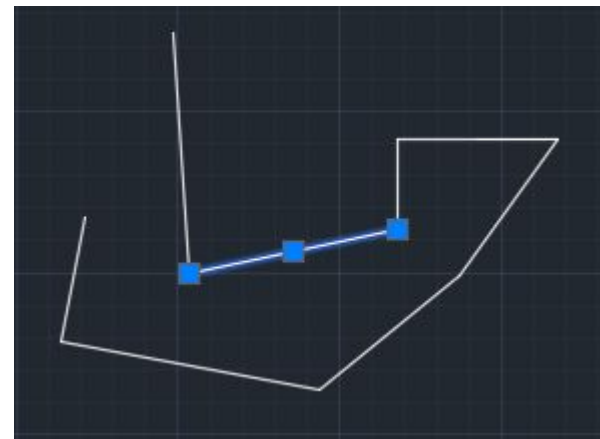
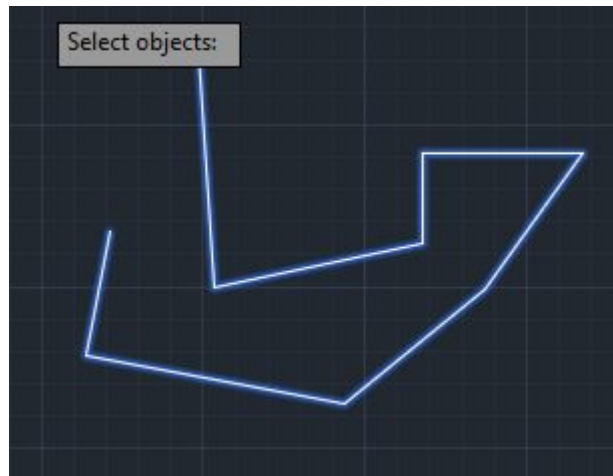
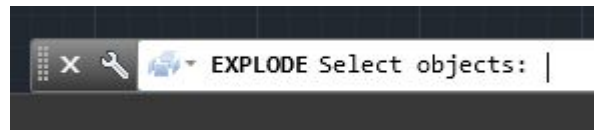
## *USE TO CONVERT LINE TO POLYLINE*

- Select all Different Line
- Press enter
- Select on any option given

# EXPLODE

## USE TO CONVERT POLYLINE TO LINE

- Command-: EXPLODE
- Select a Polyline
- Press the Command
- Press Enter





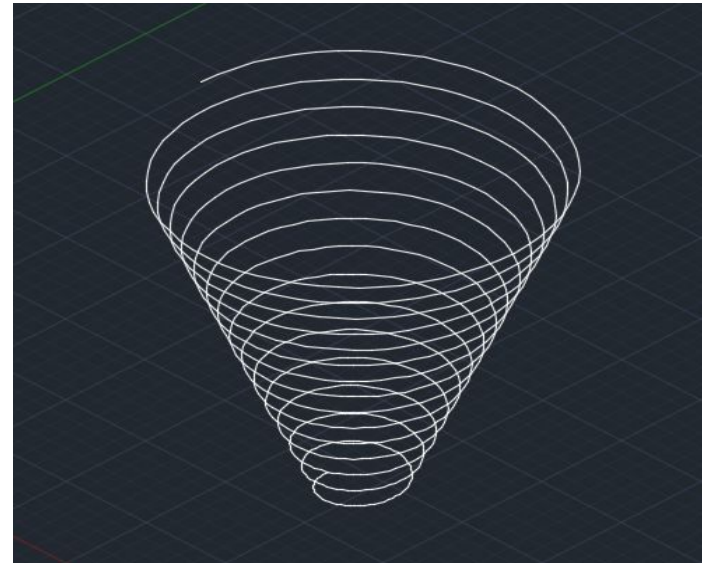
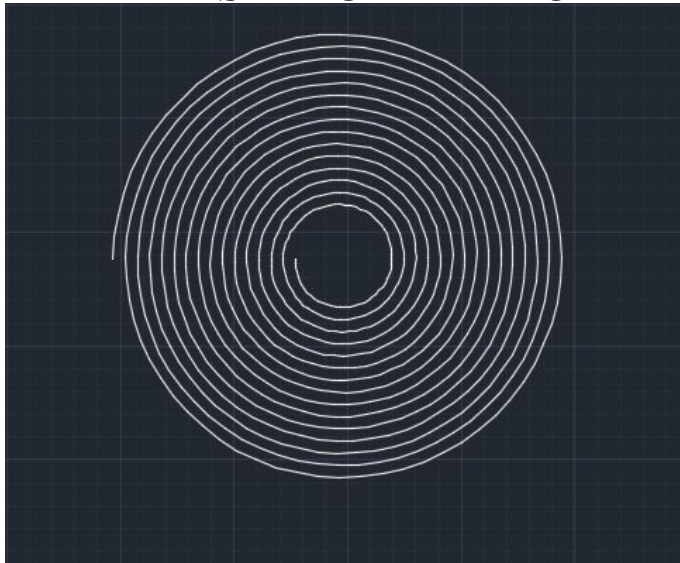
## USE TO MAKE 3 POINT LINE

- Command-: 3DFACE
- Select the first point
- Select the second point
- Select the third point
- Press enter



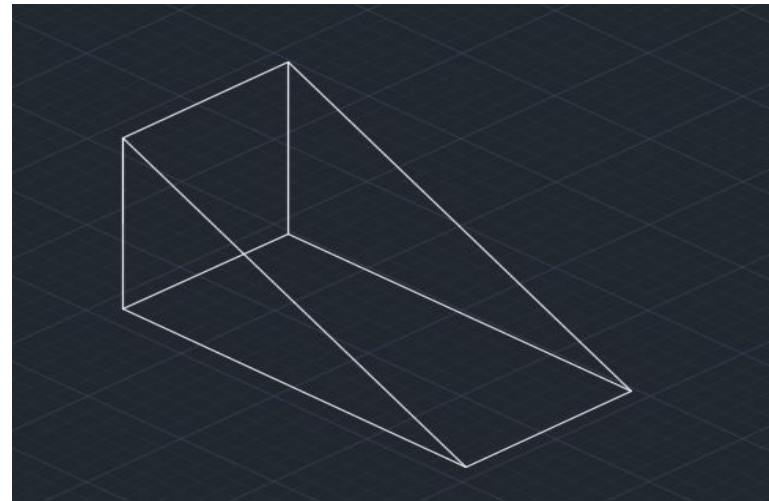
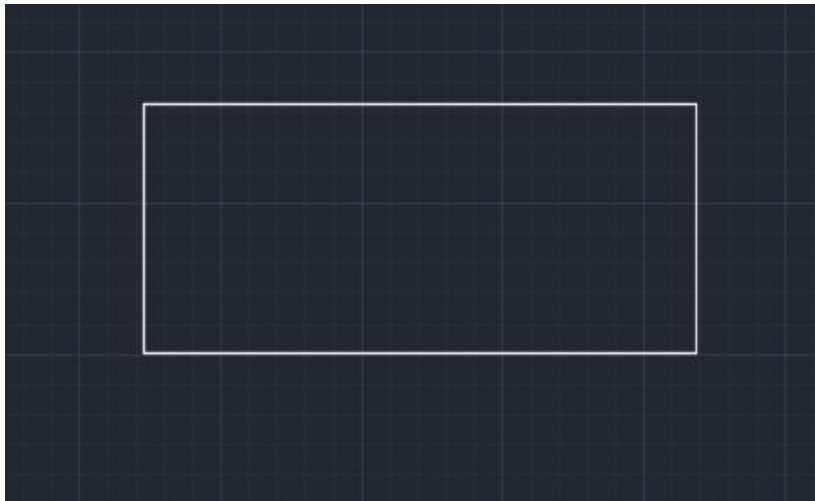
## USE TO MAKE HELICAL STRUCTURE

- Command-: HELIX
- SELECT THE CENTER POINT
  - SELECT THE BOTTOM RADIUS
- SELECT THE TOP RADIUS



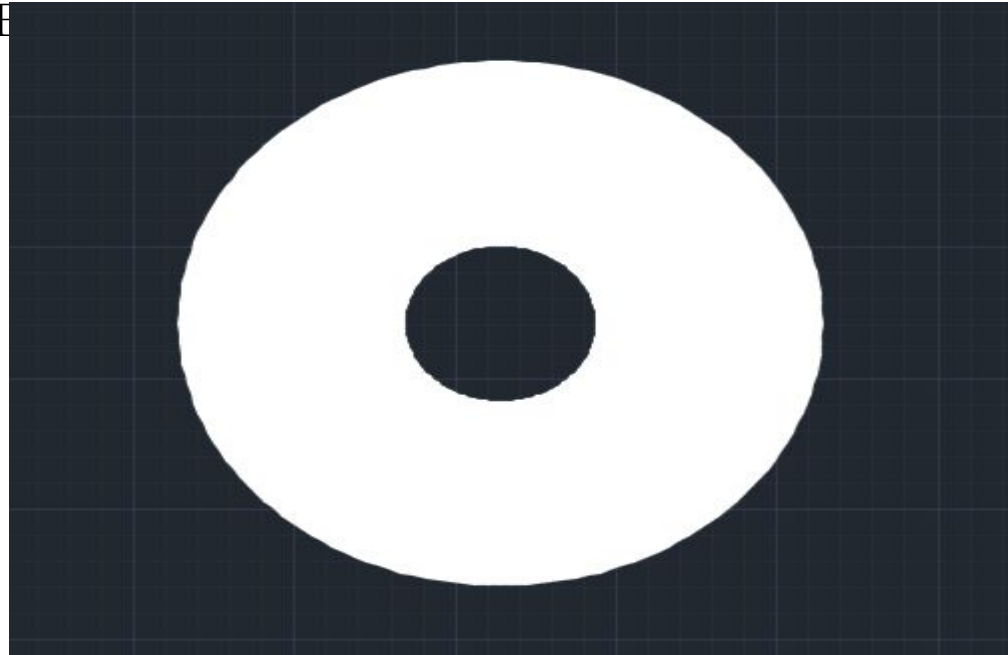
## USE TO MAKE WEDGE

- Command-: WE
- SELECT FIRST CORNER
- SELECT ANOTHER CORNER
- SPECIFY HEIGHT
- ENTER



## USE TO MAKE CONCENTRIC CIRCLE

- Command-: DO
- SELECT THE INNER DIAMETER
- SELECT THE SECOND POINT
- SELECT THE OUTSIDE DIAMETER
- PRE



# TORUS

## USE TO MAKE HOLLOW CIRCLE

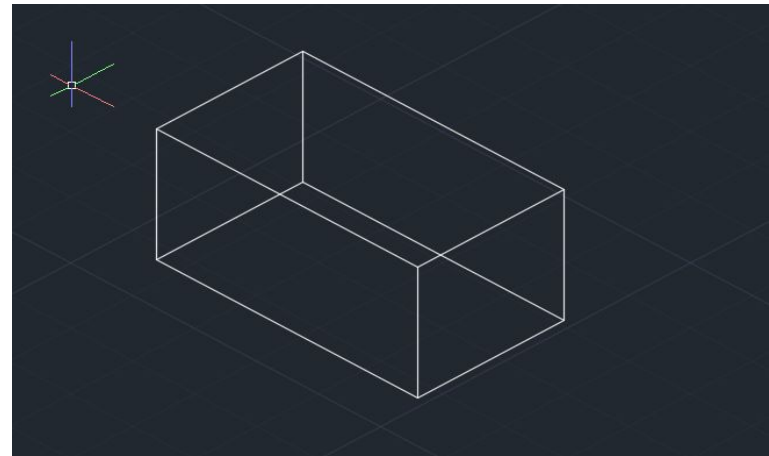
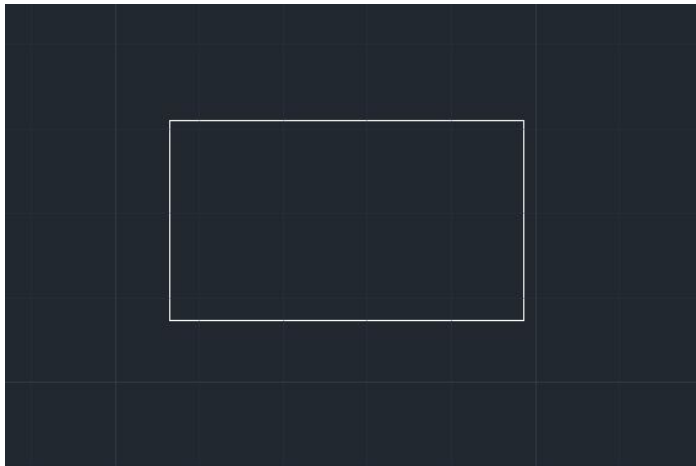
- Command-: TOR
- SELECT THE CENTER
- SELECT THE RADIUS
- SELECT THE TUBE RADIUS



# EXTRUDE

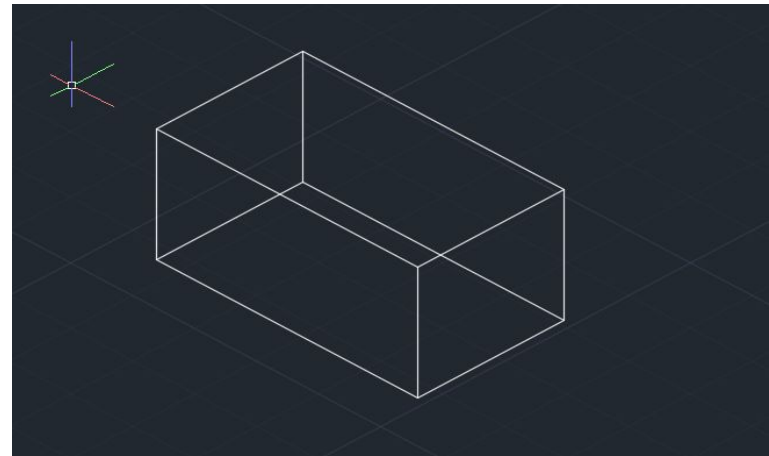
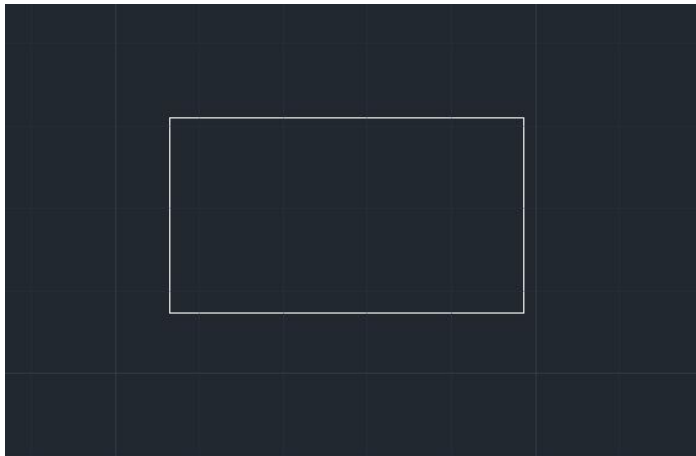
## USE TO CREATE A 3D SOLID SURFACE

- Command-: EXT
  - SELECT OBJECT TO EXTRUDE
- PRESS ENTER



### USE TO EXTEND ANY FIGURE

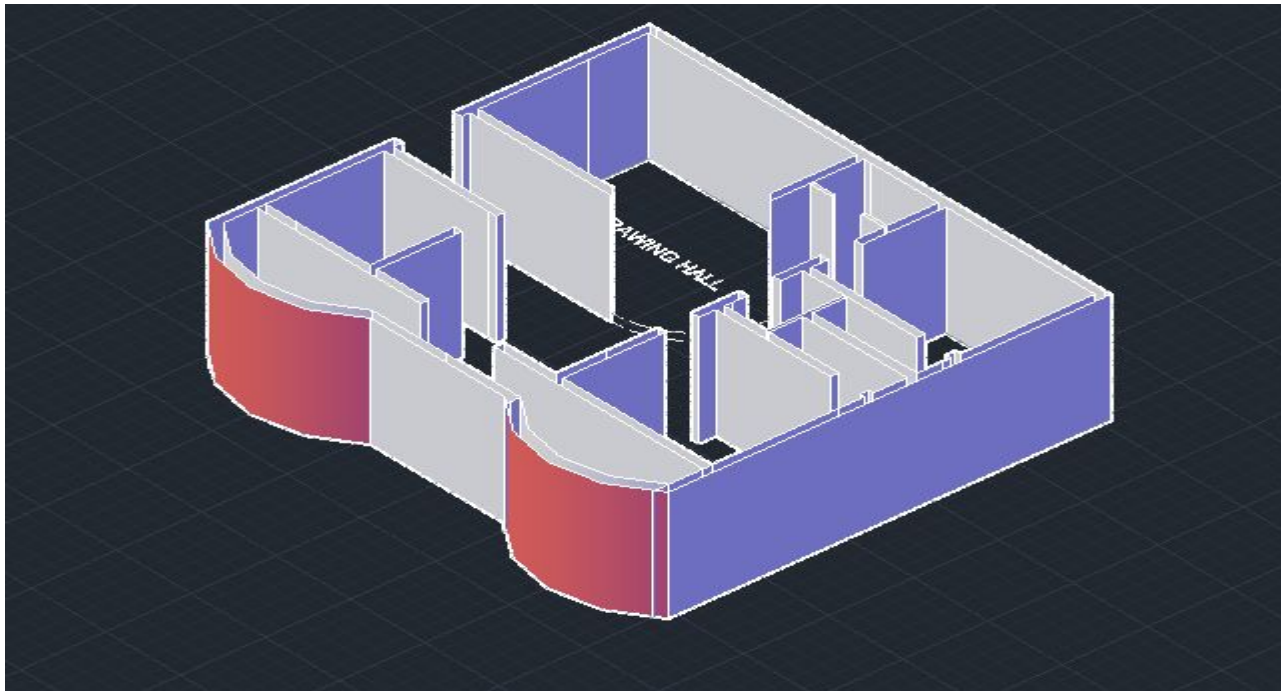
- Command-: PRESSPULL
- SELECT OBJECT OR BOUNDED AREA
- PRESS ENTER



# 3-D ORBIT

## USE TO CHANGE THE VIEW IN 3-D

- Command-: 3DO
- SELECT ANY POINT
- DRAG THE MOUSE TO SEE THE VIEW



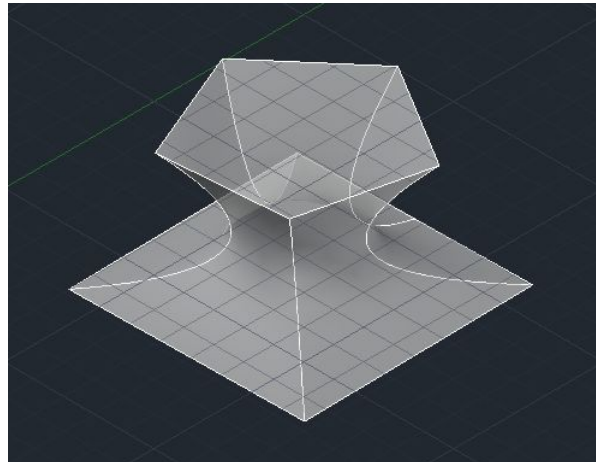
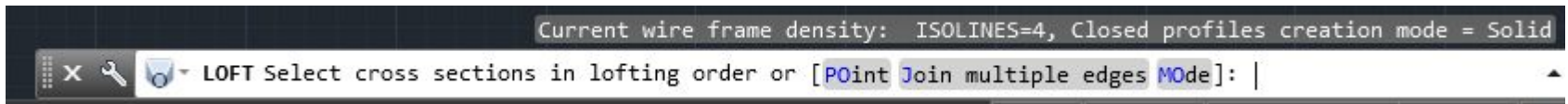


# LOF

It is used to create 3D solid between several cross-section.

- Command : **loft**↓
- Draw menu → modelling → loft → select the cross-sections in a sequence → ↵↵

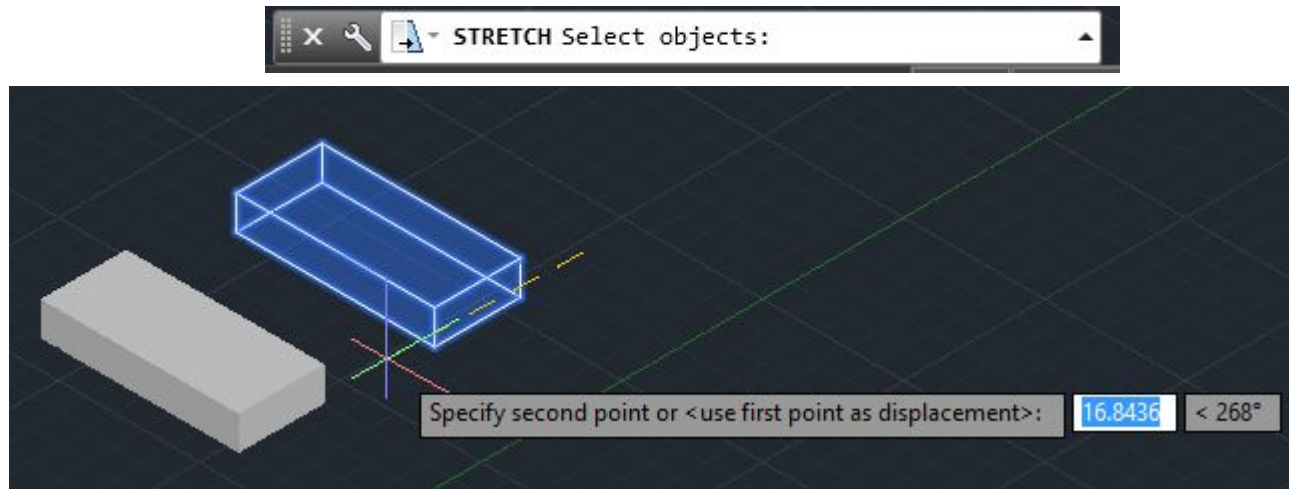
Note : profiles must be co-planer and having some vertical gaps between each profiles.



# STRETCH

Used to stretch object from its position

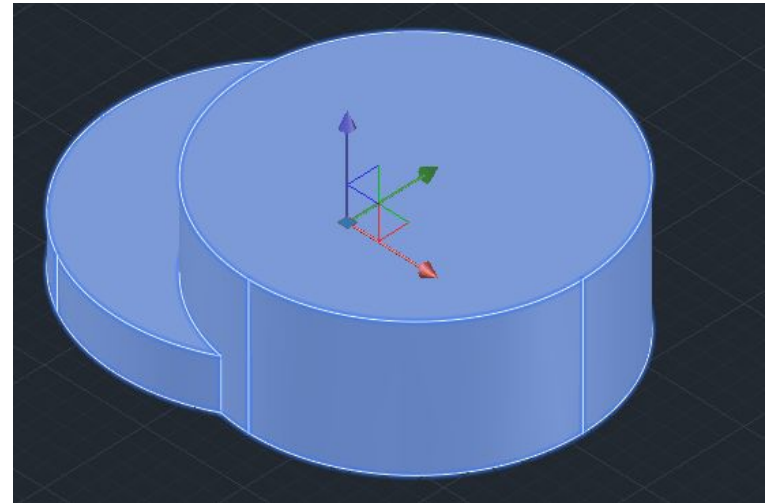
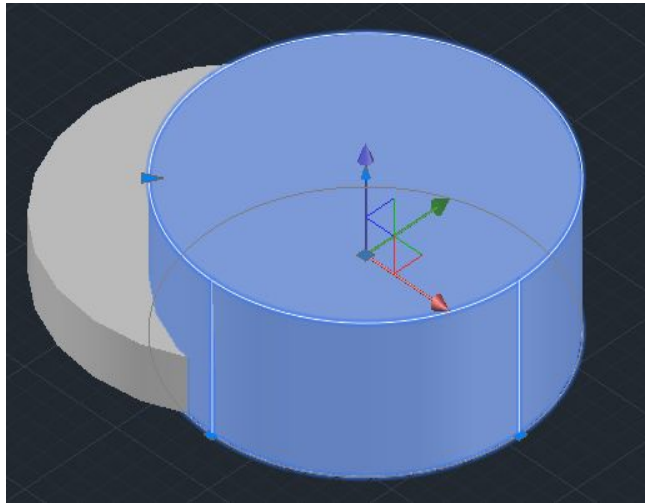
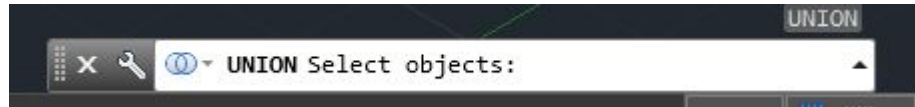
- Command : S ↵
- Click & Drag to draw half crossing selection ↵
- Specify base point for stretch & drag at desire point/destination



# UNION

It is used to combine 3D solids

- Command : uni↵
- Modify menu → solid editing → union → select the 3D objects →

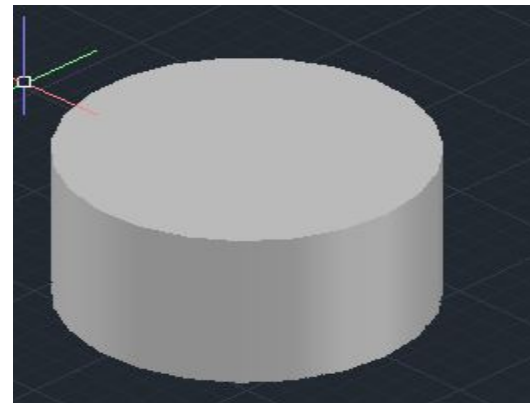
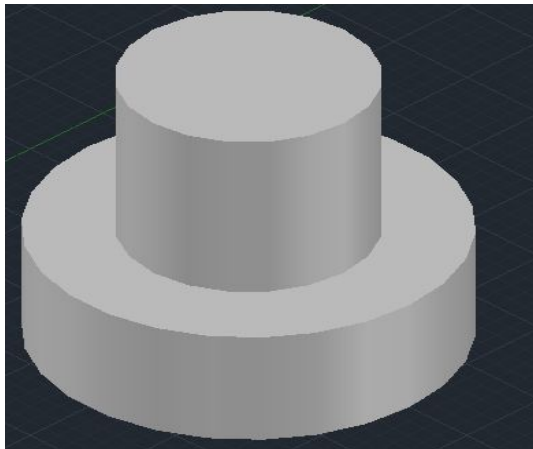
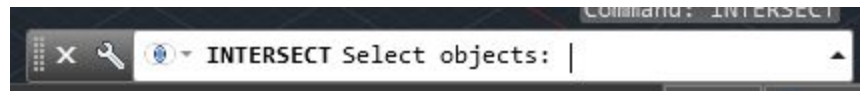


# INTERSECT

It is used to keep the common parts of the overlapping solids.

. Command: IN ☐

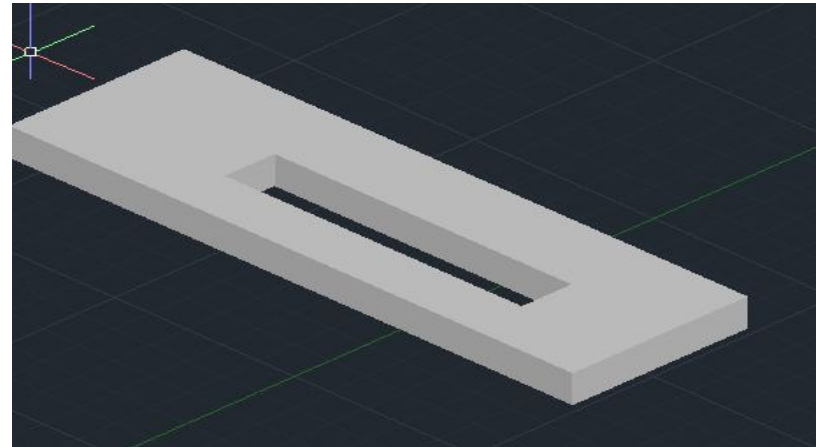
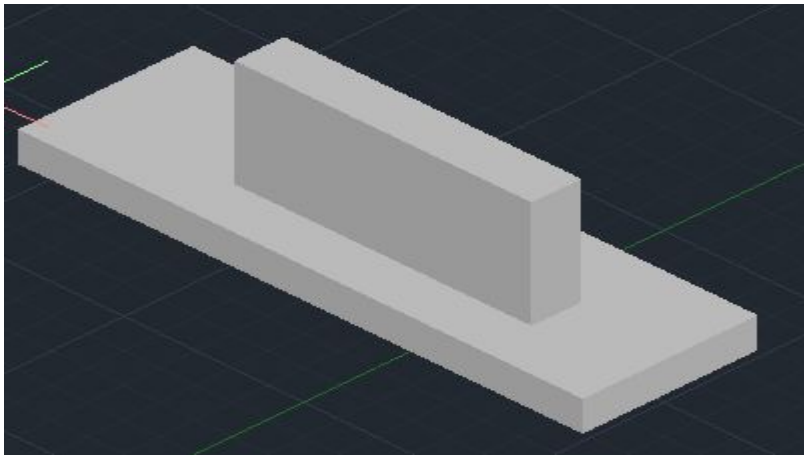
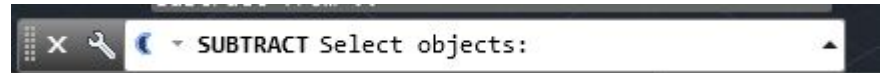
- First select two concentric object.
- SE Isometric view → extrude to different height → intersect → select the overlapping solids  
→ ↵



# SUBTRACT

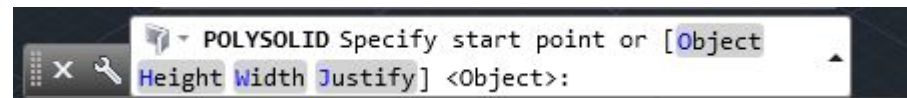
It is used to combine the 3D solids and remove solid from a overlapping solid.

- Command : su↵
- Modify menu → solid editing →subtract →select the object to retain →right click →select the object to remove →↵

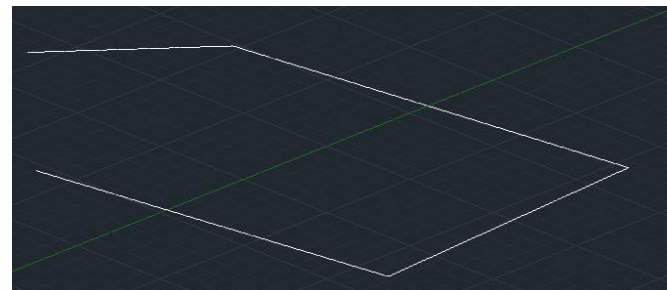
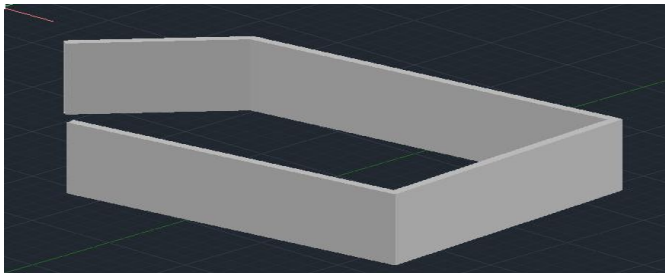


# POLYSOLID

It is used to create walls with straight and curved segment with specified height and width.



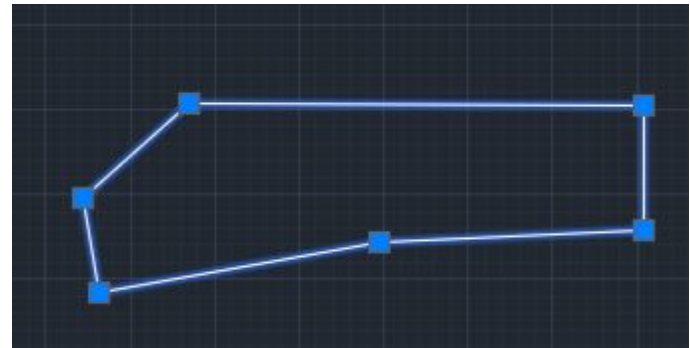
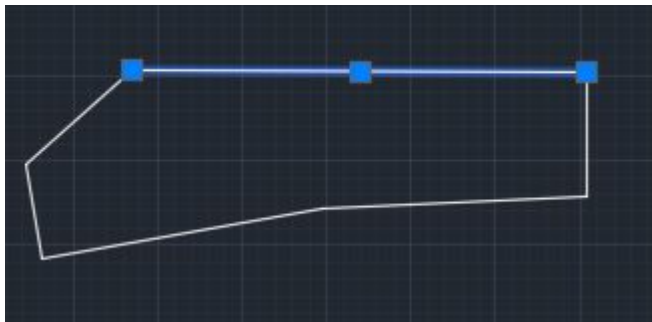
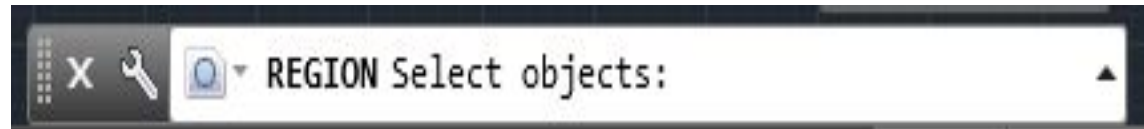
- Command : **psolid** ↵
- Draw menu → modelling → polysolid → **h** ↵ (height)  
→ define the wall height → **w** ↵ (width) → define the wall width → **j** ↵ (justification) → L/R/C ↵ (left/right/centre)  
→ specify the 1<sup>st</sup> point → specify the next point (OR) **o** ↵ (object) → select the profile



# REGION

It is used to convert multiple entities to single object.

- Command : REG ↵
- Draw menu → region → select the multi entity profile by clicking over it → ↵
- Condition : profile must be closed and must not be intersected.





thank you!

Presented by:-  
Group of AutoCAD trainee in Nit Rourkela  
Year -2015