

Lab 3

Name of Experiment: More Edit Commands

1.1 Objective of this Lab

Objective of this lab is to learn how modify and rotate a 2D object.

Learning Outcomes

Upon completion of this lab you are expected to be able to-

- Rotate objects to a certain angle.
- Create round corner between two lines.
- Create an angles corner between two lines.

4.2 Topics

Rotate command is used for rotating any object to a certain angle.

Fillet command is used for making round shape corner by specifying a radius for that round shape.

Chamfer is used to make angular corner by specifying two chamfer distances.

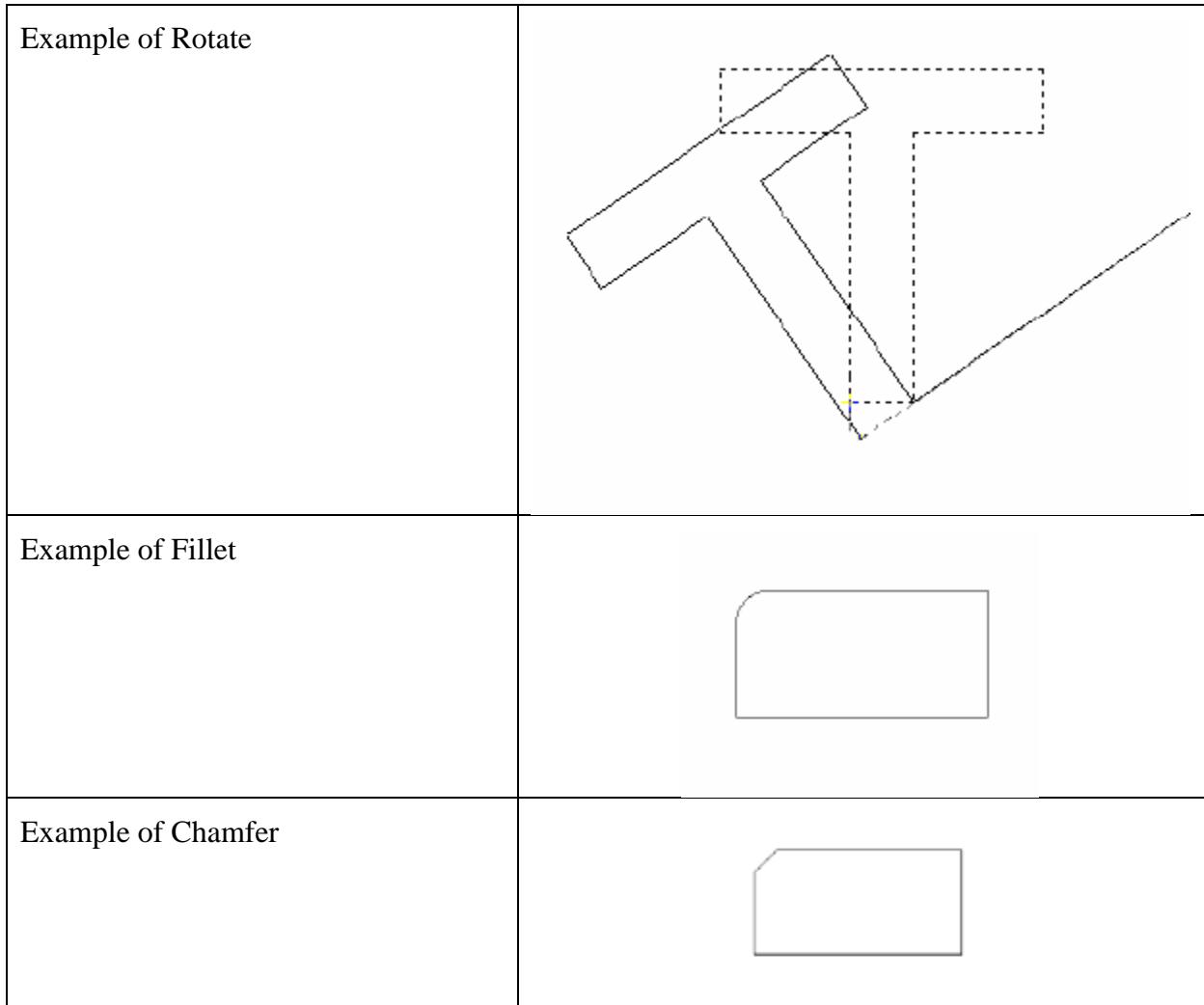
Shortcuts for rotate, fillet and chamfer are shown below-

Command	Keystroke
Rotate	ROTATE / RO
Fillet	FILLET / F
Chamfer	CHAMFER / CHA
Object Snaps	OSNAP / OS / F3

- I. Command: **RO <ENTER>**
Current positive angle in UCS: ANGDIR=counterclockwise ANGBASE=0
Select objects: <Select the Rectangle> 1 found
Select objects: <ENTER>
Specify base point: <PICK BOTTOM RIGHT CORNER OF THE RECTANGLE>
Specify rotation angle or [Reference]: -90 <ENTER>

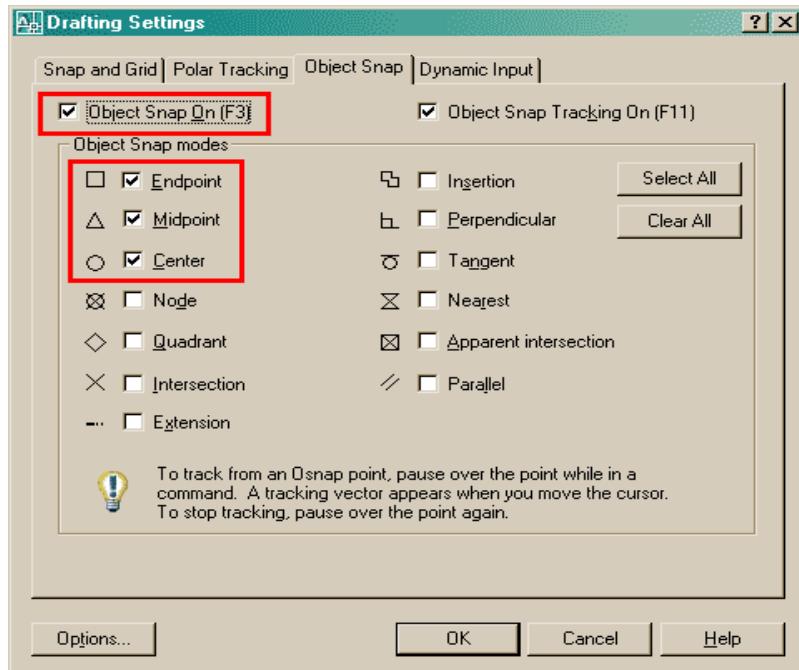
- II. Command: **F <ENTER> FILLET**
Current settings: Mode = TRIM, Radius = 0.0000
Select first object or [Undo/Polyline/Radius/Trim/Multiple]:

III. Command: **CHA** <ENTER> CHAMFER
(TRIM mode) Current chamfer Dist1 = 0.0000, Dist2 = 0.0000
Select first line or [Polyline/Distance/Angle/Trim/Method]: **D** <ENTER>
Specify first chamfer distance <0.5000>: **.375** <ENTER>
Specify second chamfer distance <0.3750>: <ENTER>
Select first line or [Undo/Polyline/Distance/Angle/Trim/mETHOD/Multiple]:
<select one side of the rectangle>



IV. Object Snaps (OSNAP)

Type **OS** <ENTER>. You will see this dialog box appear.



Endpoint - snaps to either the beginning or the end of an object such as a line - **END**

Midpoint - snaps to the exact middle of a line or an arc - **MID**

Center - snaps to the center-point of a circle or arc - **CEN**

Node - snaps to 'nodes' - **NOD**

Quadrant - snaps to any of the four quadrants of a circle - **QUA**

Intersection - snaps to the point where two objects cross - **INT**

Extension - Snaps to the phantom extension of an arc or line - **EXT**

Insertion - snaps to the insertion point of an object (such as a block or text) - **INS**

Perpendicular - will snap so that the result is perpendicular to line selected - **PER**

Tangent - snaps to create a line tangent to a circle or arc - **TAN**

Nearest - will find the closest point on an object and snap to that point - **NEA**

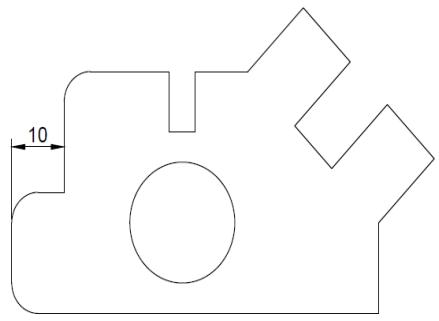
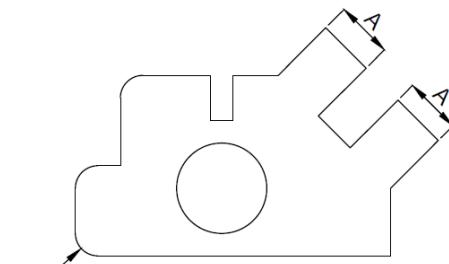
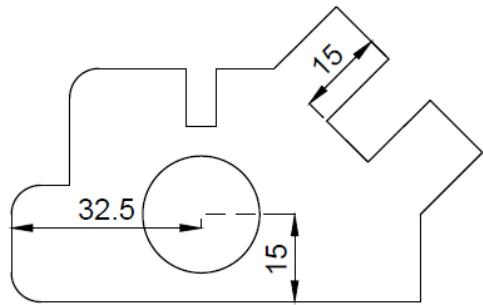
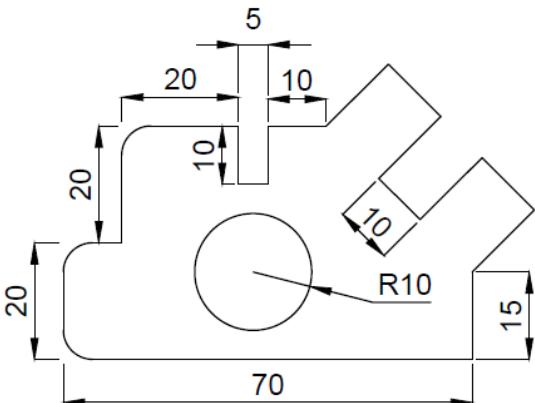
Parallel - Snaps parallel to a specified line - **PAR**

None - temporarily turns off all Osnaps. (Pressing your F3 Key is quicker) - **NON**

Osnap settings - opens the Osnap dialog box.

Temporary Tracking - Creates a temporary tracking point (see Object Tracking).

Lab Tasks-1:



Question: What is the value of A ?

Now, draw the diagram.

Lab Tasks-2:

