Course code: CSE 4104 **Credit: .75**
Course Name: Engineering Drawing Lab **Semester: Winter**

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.

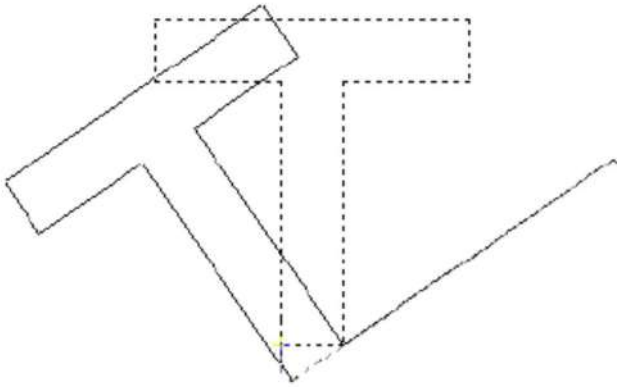
Shortcuts for rotate, fillet and chamfer are shown below-

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>

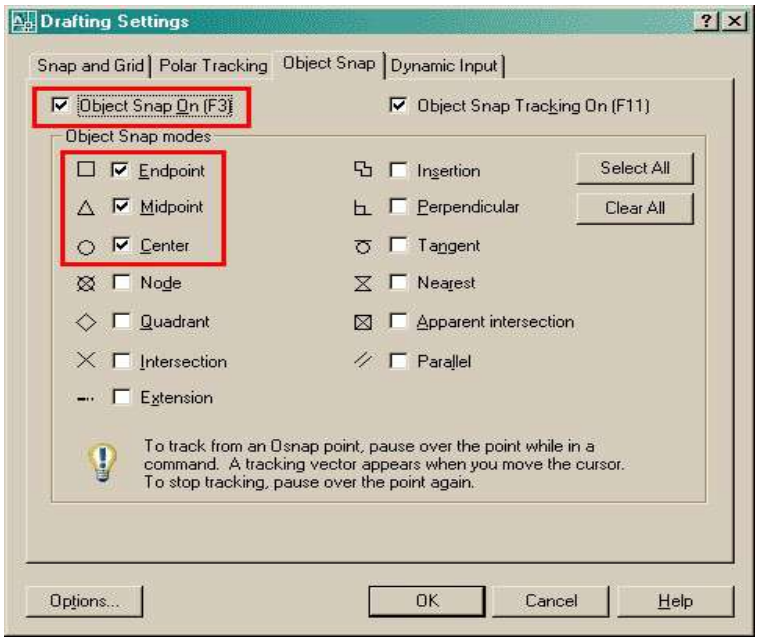
II. Command: **F** <ENTER> FILLET
Current settings: Mode = TRIM, Radius = 0.0000
Select first object or [Undo/Polyline/Radius/Trim/Multiple]:

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>

Example of Rotate	
Example of Fillet	
Example of Chamfer	

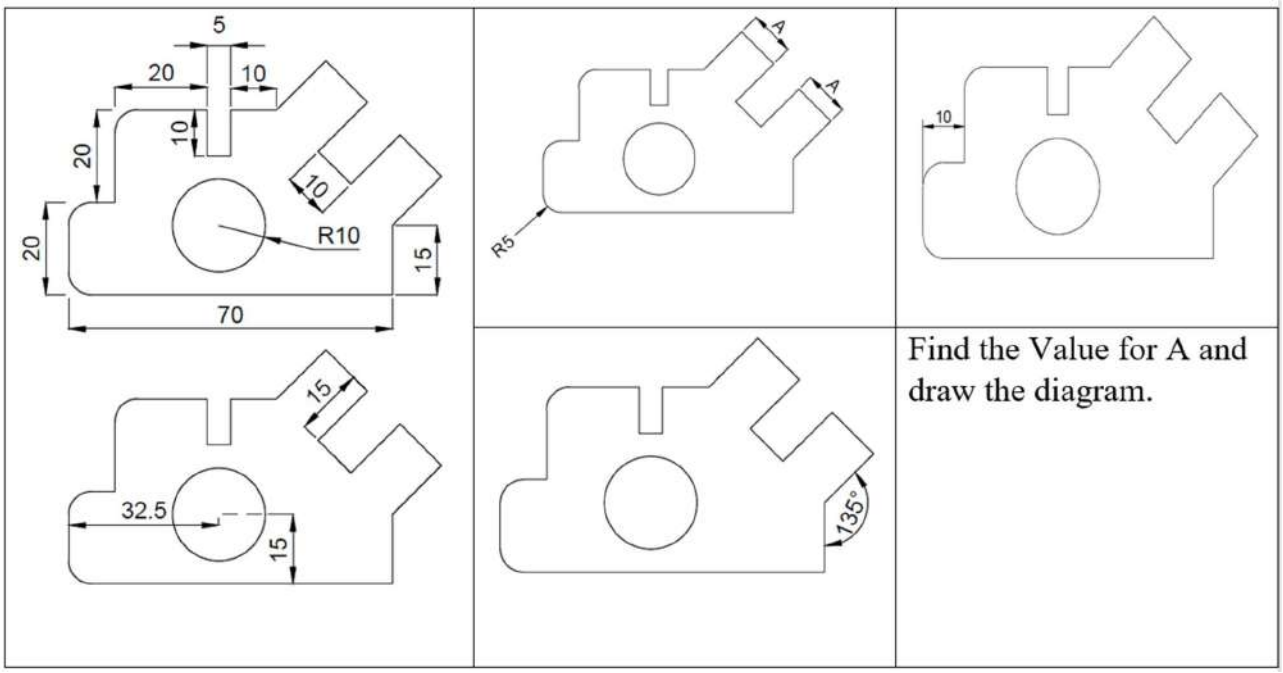
IV. Object Snaps (OSNAP)

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

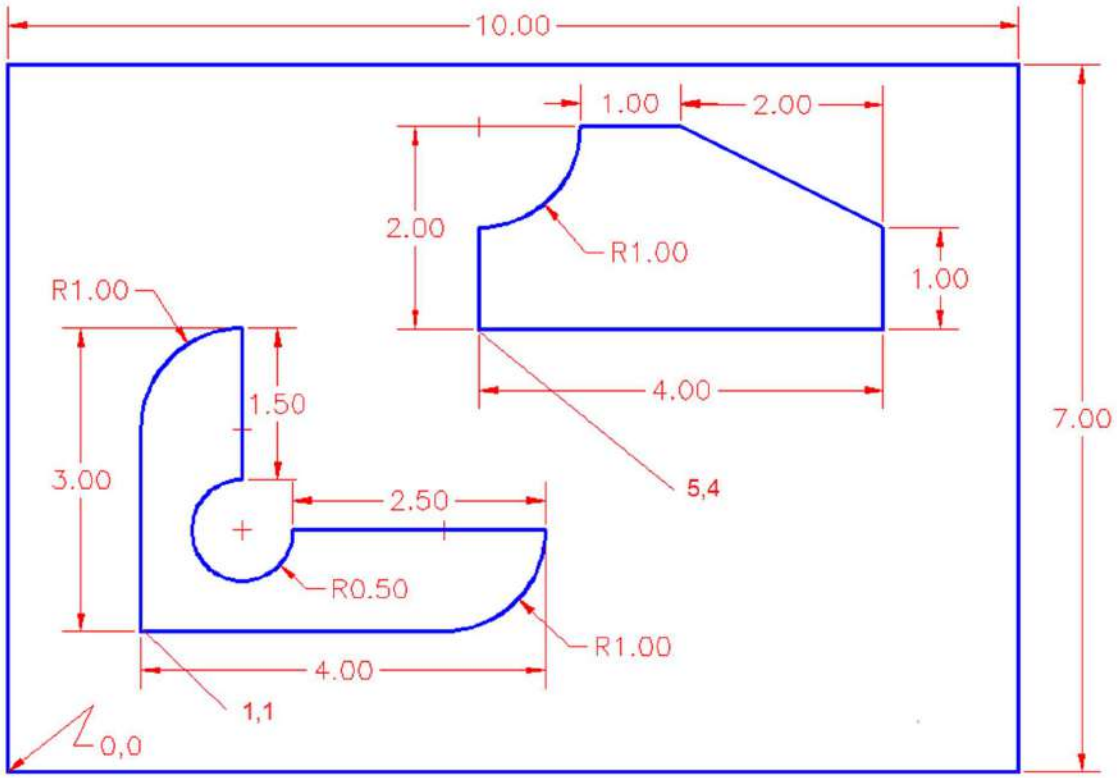


Endpoint - snaps to either the beginning or the end of an object such as a line - **END**
Midpoint - snaps to the exact middle of a line or an arc - **MID**
Center - snaps to the center-point of a circle or arc - **CEN**
Node - snaps to 'nodes' - **NOD**
Quadrant - snaps to any of the four quadrants of a circle - **QUA**
Intersection - snaps to the point where two object 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 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).

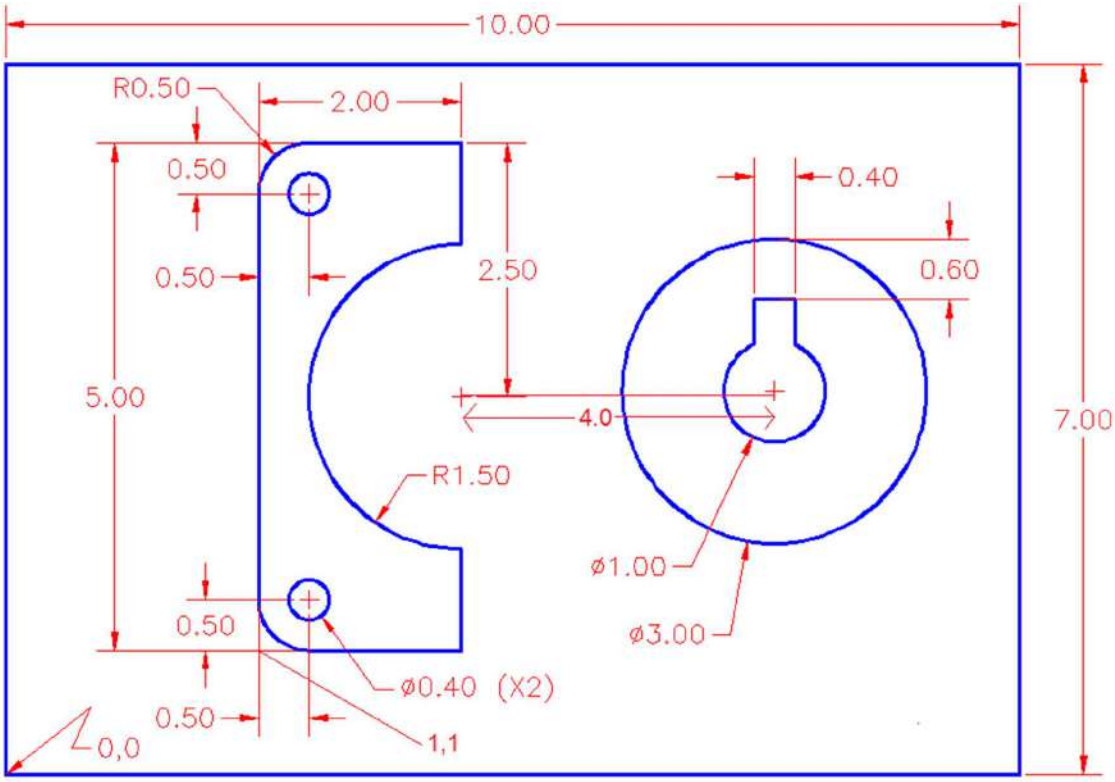
Task 1:


5
20
10
10
20
10
R10
20
15
70
15
32.5
15
A
A
R5
10
135°
Find the Value for A and draw the diagram.

Task 2:


10.00
1.00
2.00
2.00
R1.00
1.00
R1.00
1.50
3.00
4.00
7.00
5,4
2.50
R0.50
R1.00
4.00
1,1
0,0

Assignment:


10.00
R0.50
2.00
0.50
0.50
2.50
0.40
0.60
5.00
4.0
7.00
R1.50
ø1.00
ø3.00
0.50
ø0.40 (X2)
0.50
1,1
0,0