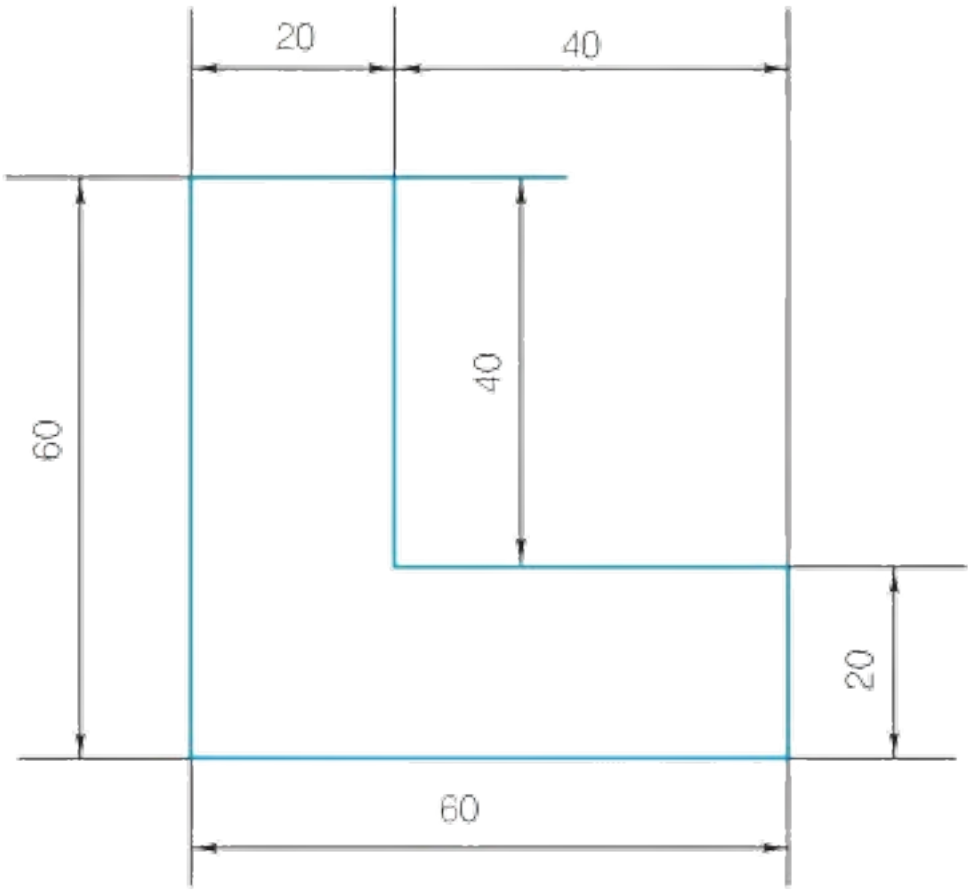
Institute of Engineering,
Thapathali Campus
Machine Drawing (CAD)
ME 152

Department of Automobile and Mechanical Engineering

July 29, 2024

Tutorial for Computer Aided Drawing Lab

1 lab 1: Introduction to AutoCAD interface and coordinate systems



Assume absolute coordinate of the bottom left corner be (15, 15).

1.1 Draw the given figure in AutoCAD using the absolute coordinates and write the command sequence.

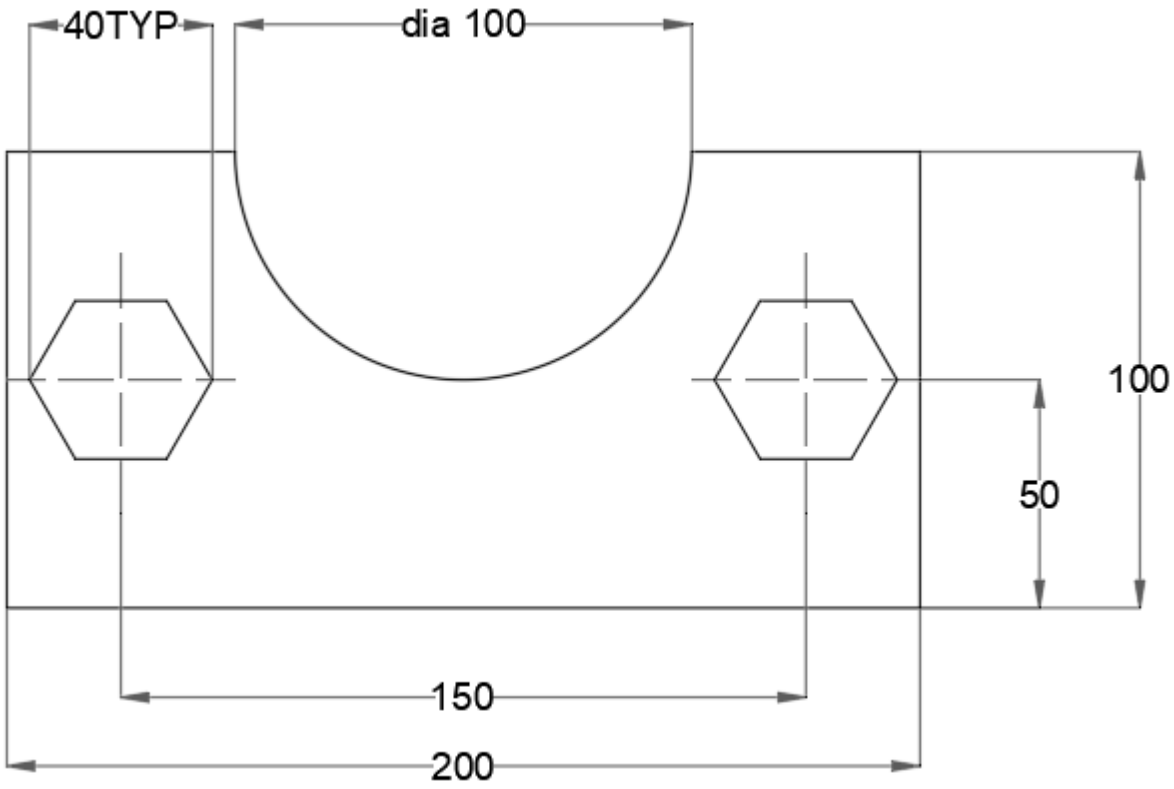
1.2 Draw the given figure in AutoCAD using the relative coordinates and write the command sequence.

1.3 Draw the given figure in AutoCAD using the relative polar coordinates and write the command sequence.

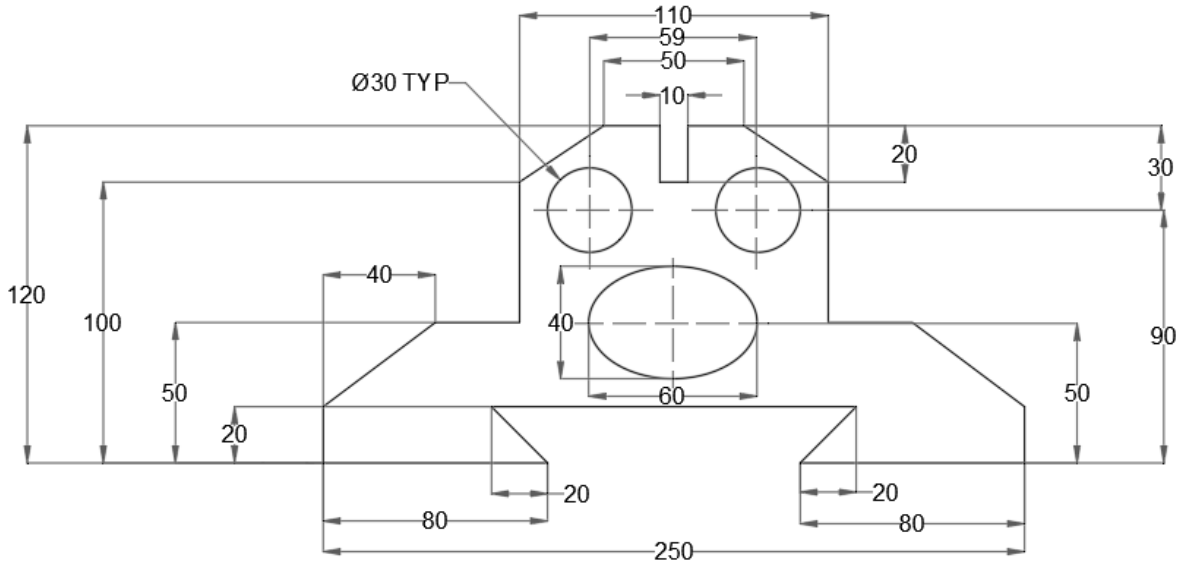
2 lab 2: Introduction to AutoCAD sketch tools

2.1 Draw a parabola with double ordinate 100 mm and axis 60 mm.

2.2 Draw the given figure in AutoCAD and write the command sequence.

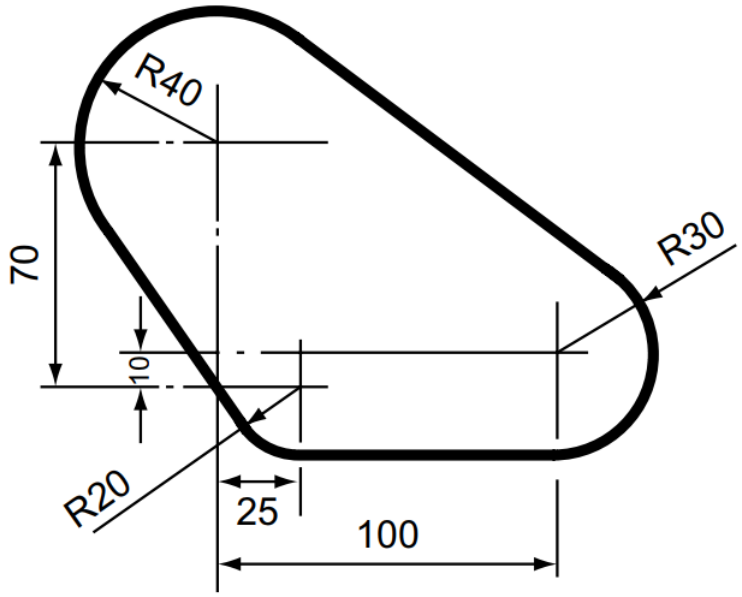


2.3 Draw the given figure in AutoCAD and write the command sequence.

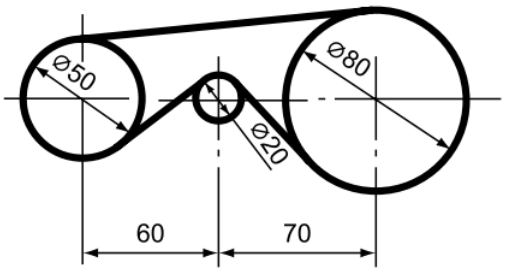


3 Lab 3: Introduction to AutoCAD modify tools

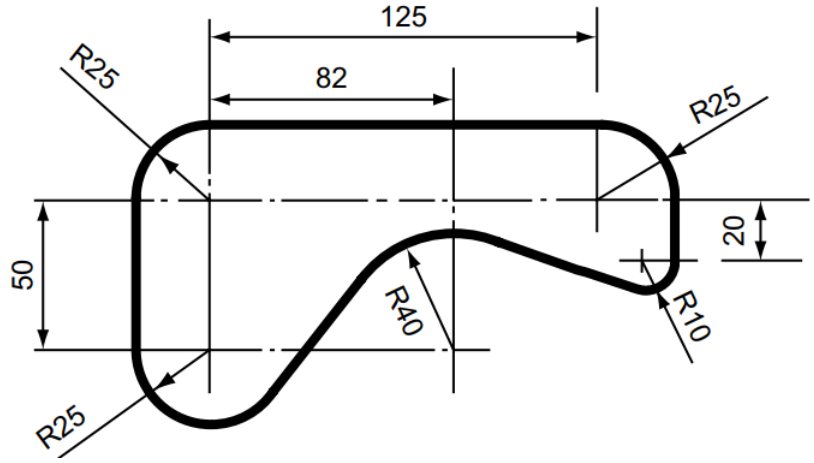
3.1 Draw the given figure in AutoCAD and write the command sequence.



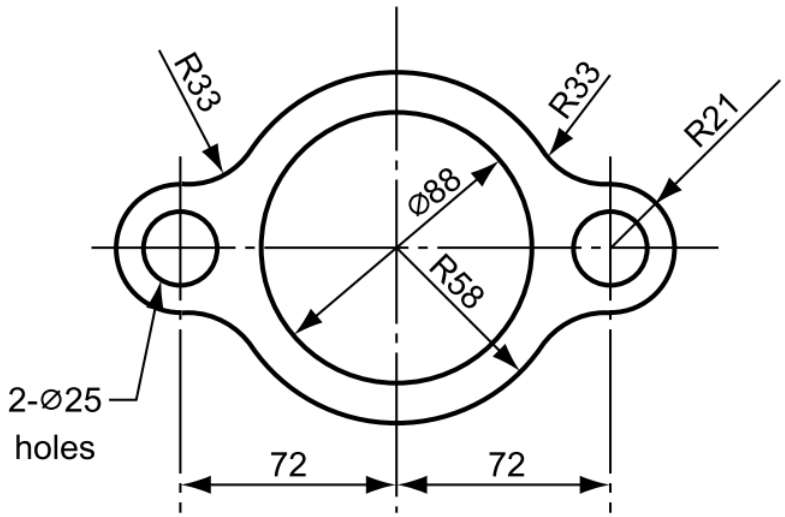
3.2 Draw the given figure in AutoCAD and write the command sequence.



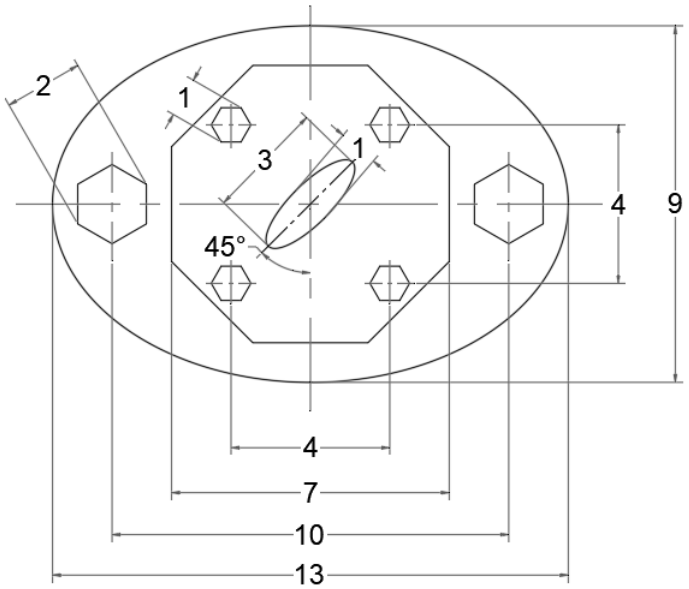
3.3 Draw the given figure in AutoCAD and write the command sequence.



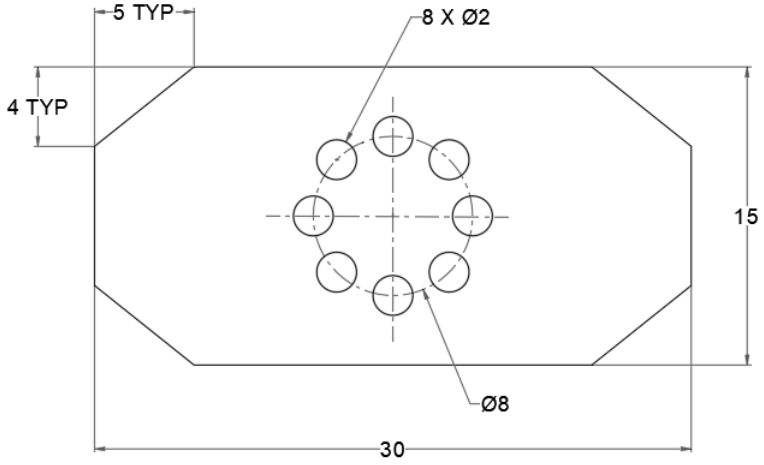
3.4 Draw the given figure in AutoCAD and write the command sequence.



3.5 Draw the given figure in AutoCAD and write the command sequence.

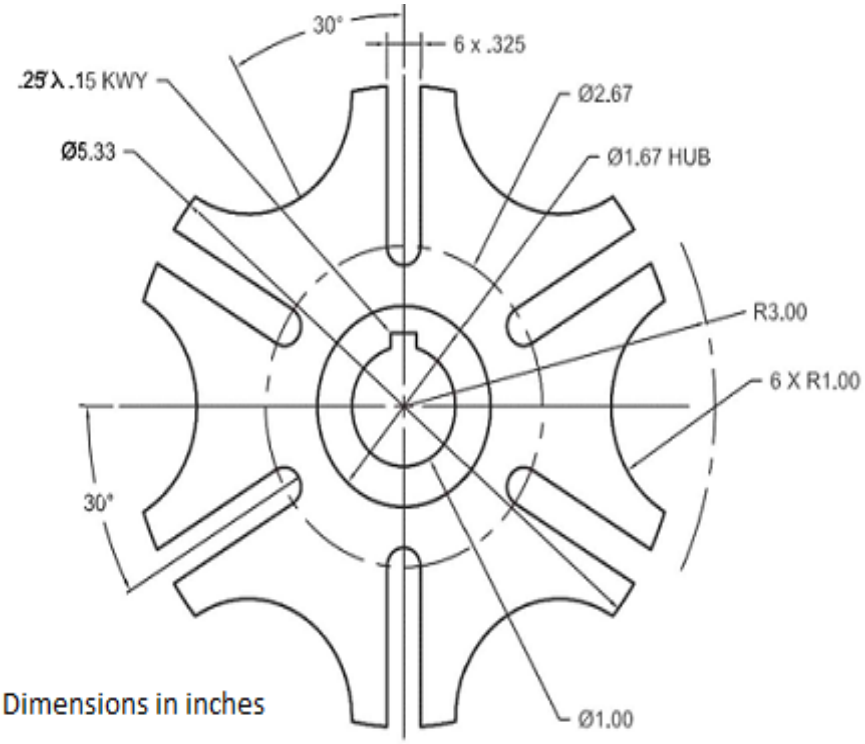


3.6 Draw the given figure in AutoCAD and write the command sequence.

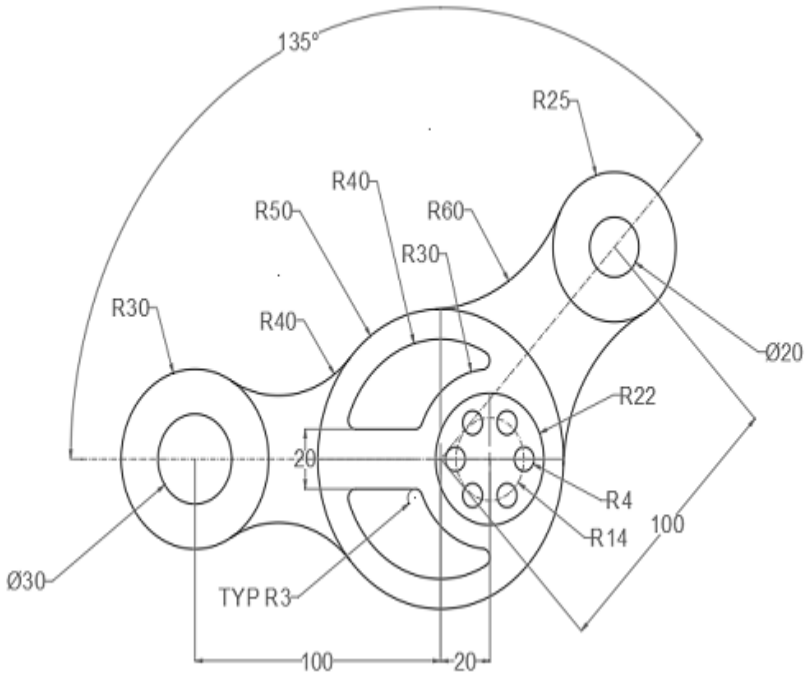


4 Lab 4: 2D Drafting I

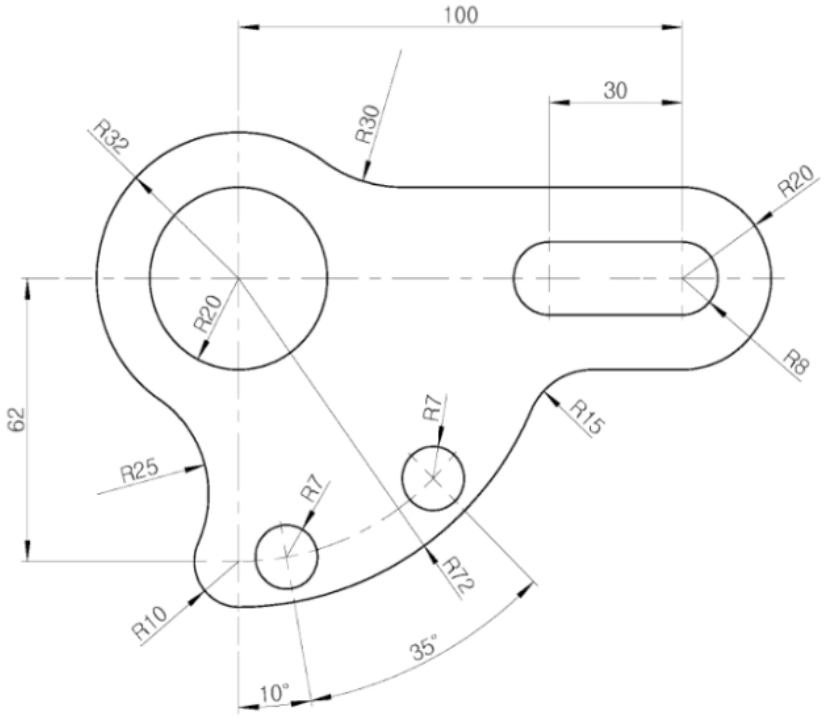
4.1 Draw the given figure in AutoCAD and write the command sequence.



4.2 Draw the given figure in AutoCAD and write the command sequence.

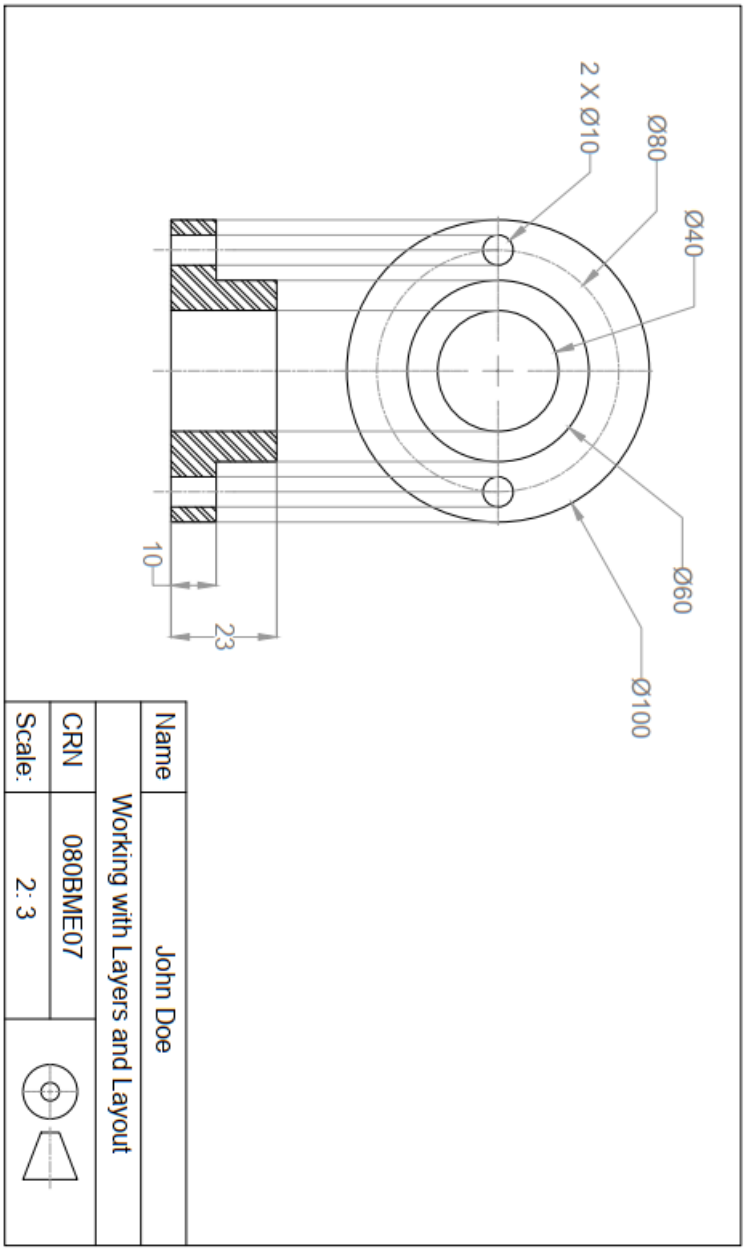


4.3 Draw the given figure in AutoCAD and write the command sequence.

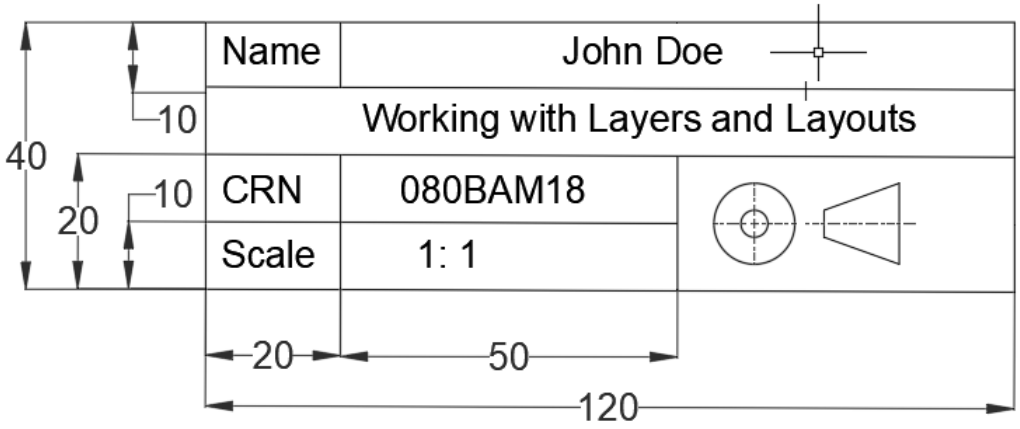


5 Lab 5: 2D Drafting II: Layers and Layout

5.1 Replicate the given figure in AutoCAD and export the layout in ISO A4 pdf format.

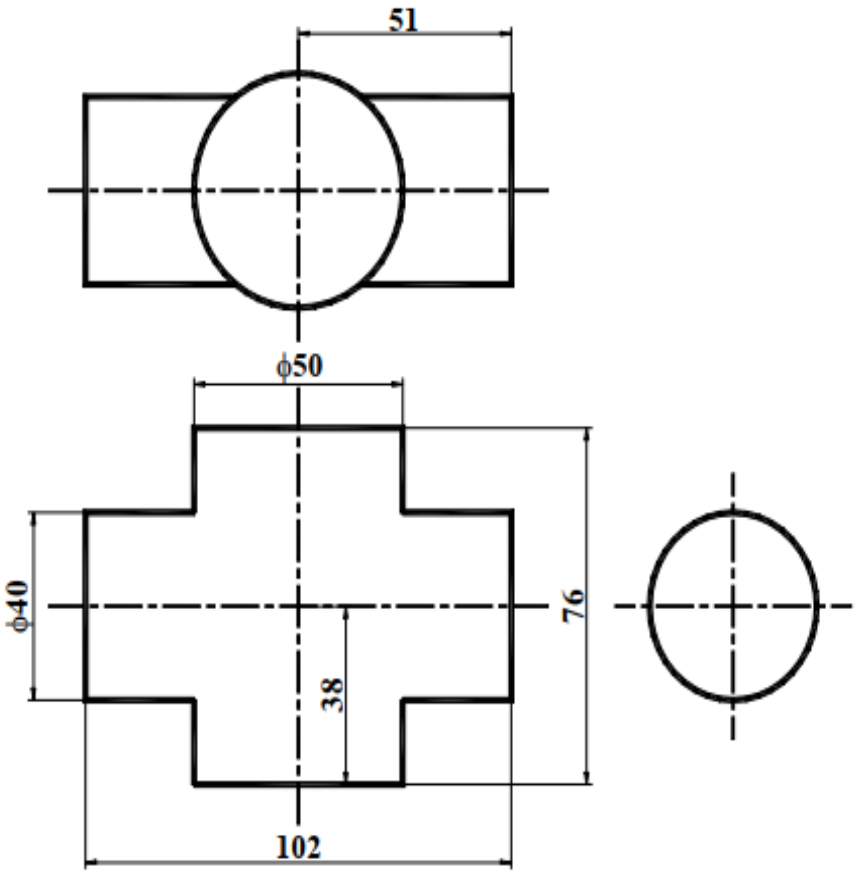


5.2 Plot a layout in similar fashion to task 5.1 for task 4.3. The dimensions for the title block is provided below.

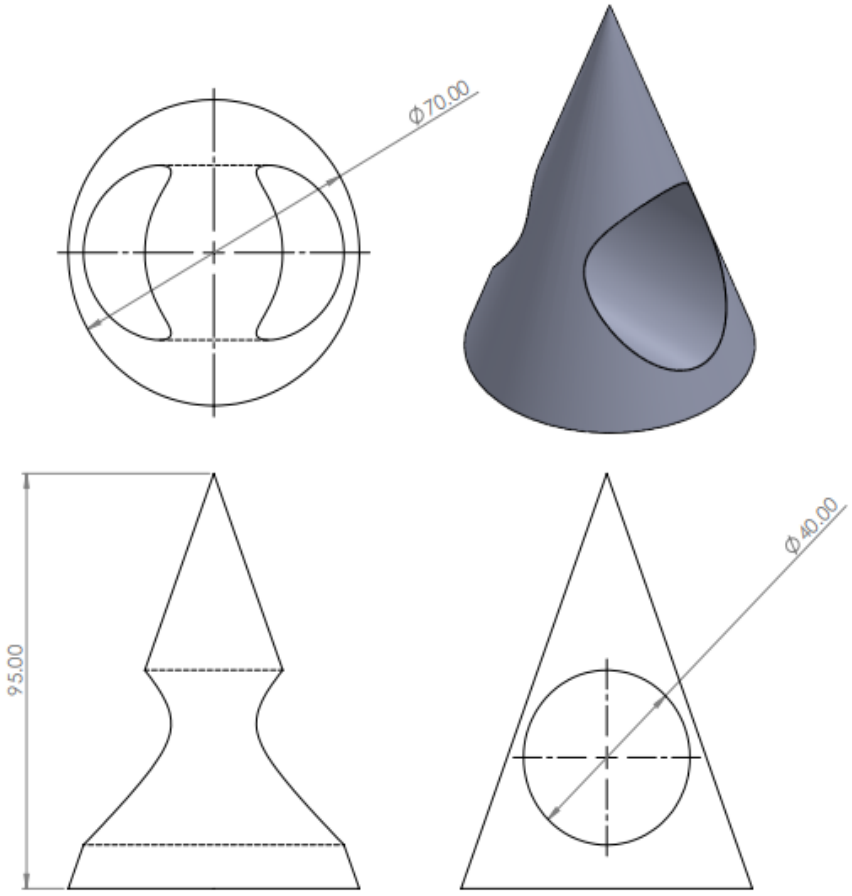


6 Lab 6: 3D Modelling I: Modelling with primitive entities

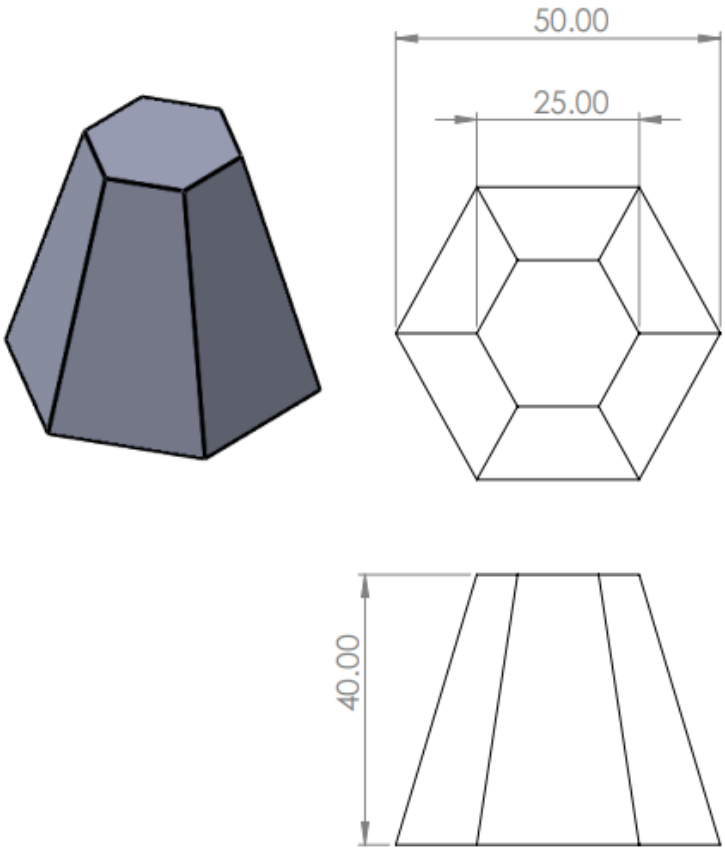
6.1 Model the solid object given in the figure below.



6.2 Model the solid object given in the figure below.

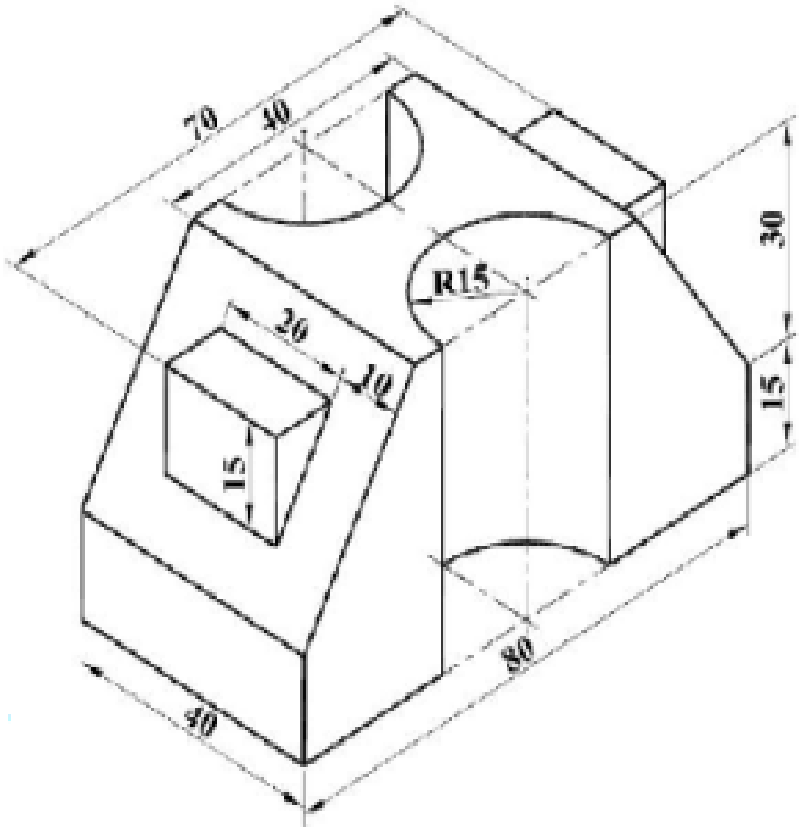


6.3 Model the solid object given in the figure below.

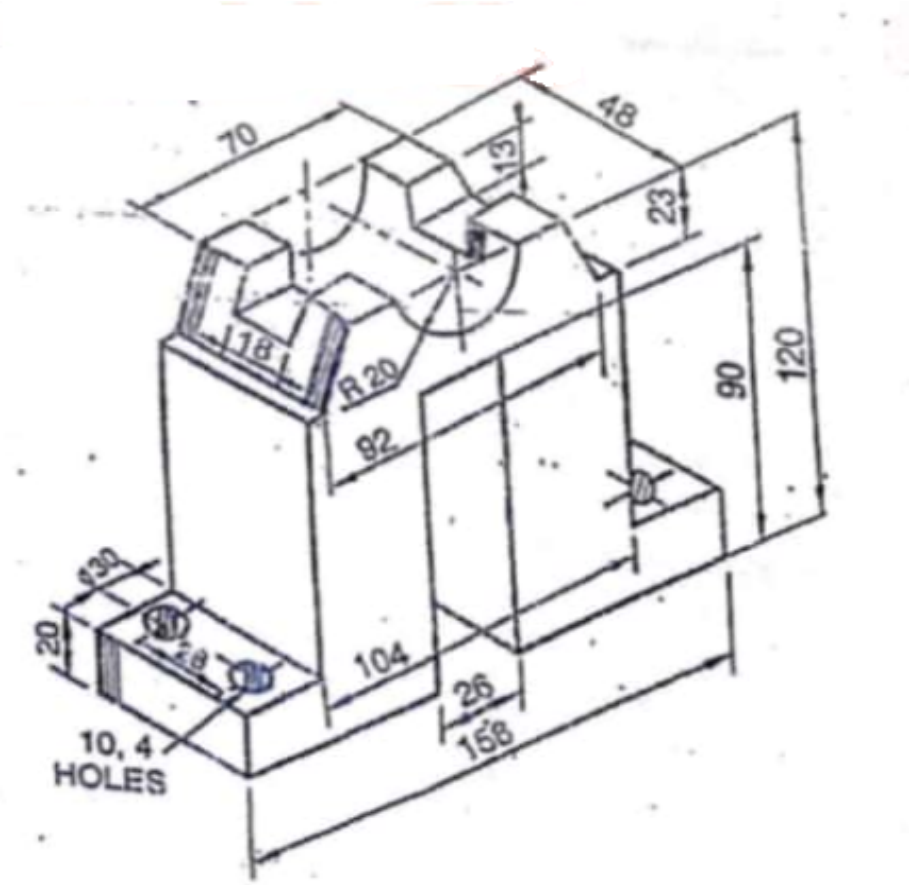


7 Lab 7: 3D Modelling II: Modelling with custom sketch regions

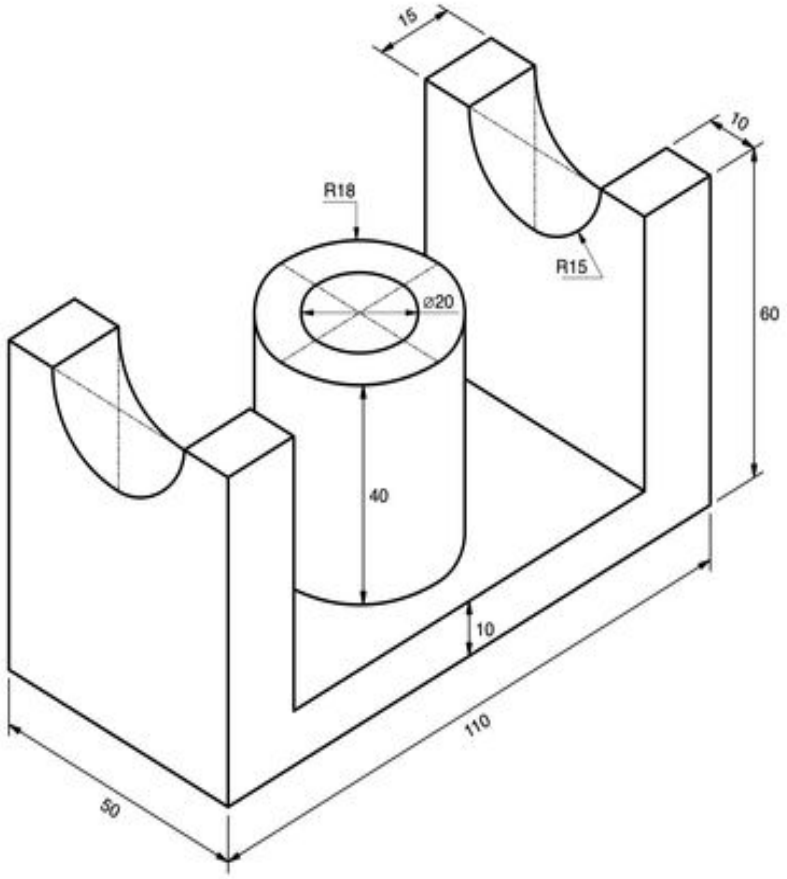
7.1 Model the solid object given in the figure below.



7.2 Model the solid object given in the figure below.



7.3 Model the solid object given in the figure below.



7.4 Model the solid object given in the figure below.