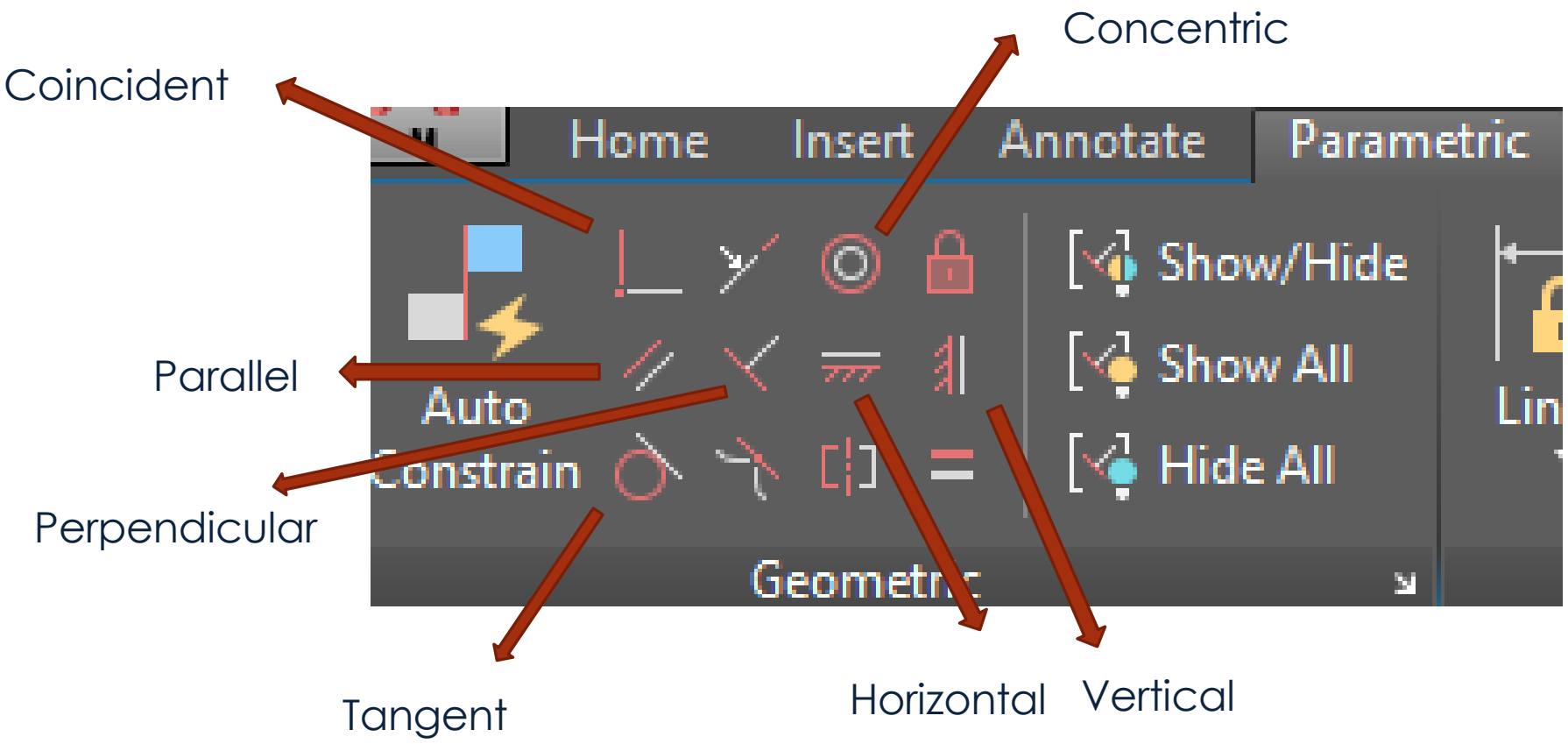
ENGG105 AUTOCAD LAB 2

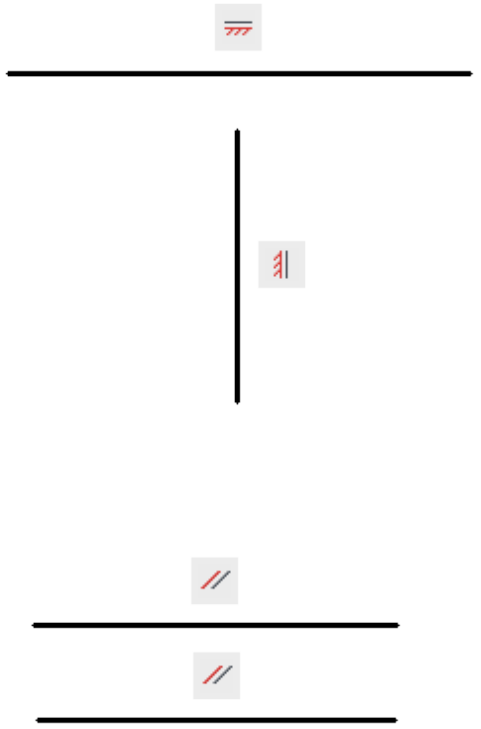
University of Wollongong in Dubai

GEOMETRIC CONSTRAINTS



GEOMETRIC CONSTRAINTS

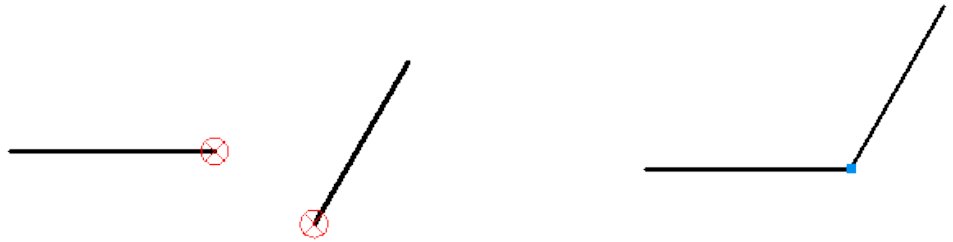
- **Parallel, Vertical, and Horizontal**



GEOMETRIC CONSTRAINTS

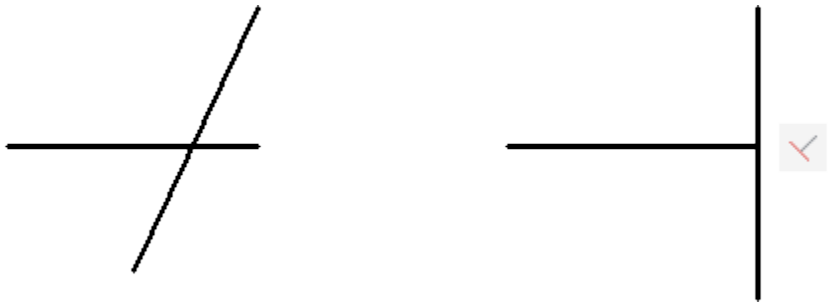
COINCIDENT

- It forces a selected point of an entity to be coincident with another point of another entity.



Perpendicular

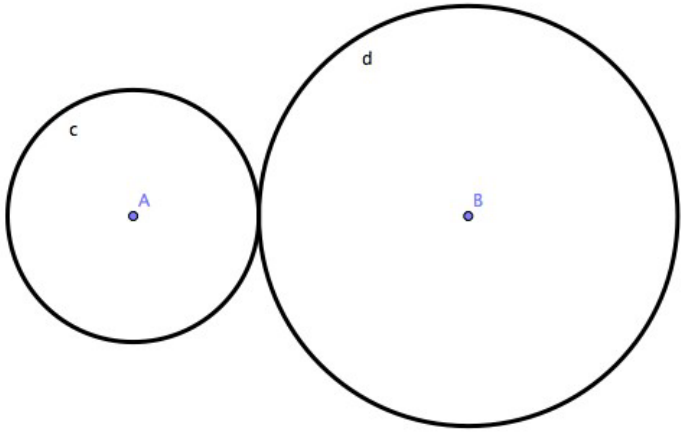
- It forces the selected lines to be perpendicular to each other.



GEOMETRIC CONSTRAINTS

TANGENT

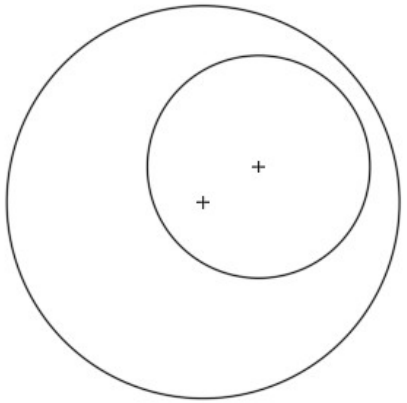
It forces the selected entities (such as arc, circle, ellipse) to be tangent to the another entities (such as arc, circle, ellipse, line, polyline).

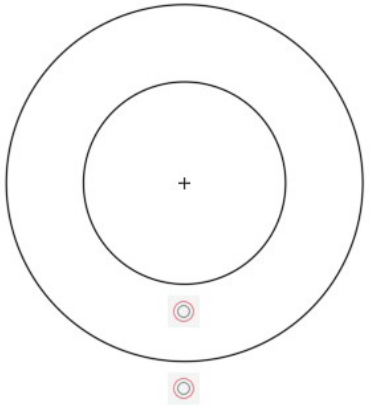


GEOMETRIC CONSTRAINTS

Concentric

It forces the selected arc, circle and ellipse to share the center point of another arc, circle and ellipse.





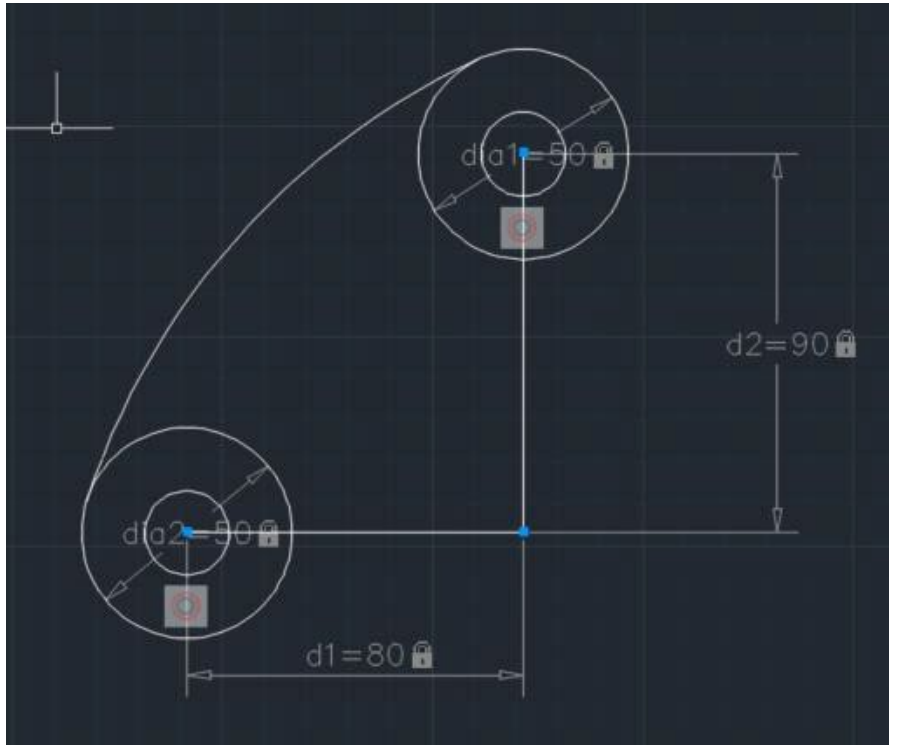
Dimensional Constraints

- Dimensional constraints control the size and proportions of a design.

They can constrain the following:

- Distances between objects, or between points on objects
- Angles between objects, or between points on objects
- Sizes of arcs and circles

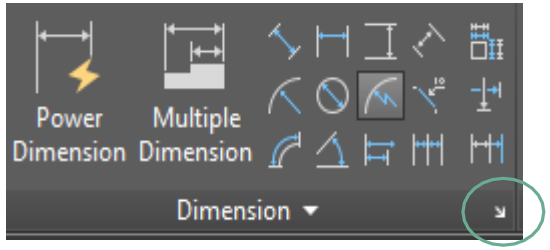
Example of different dimensional constraint (from class work1)



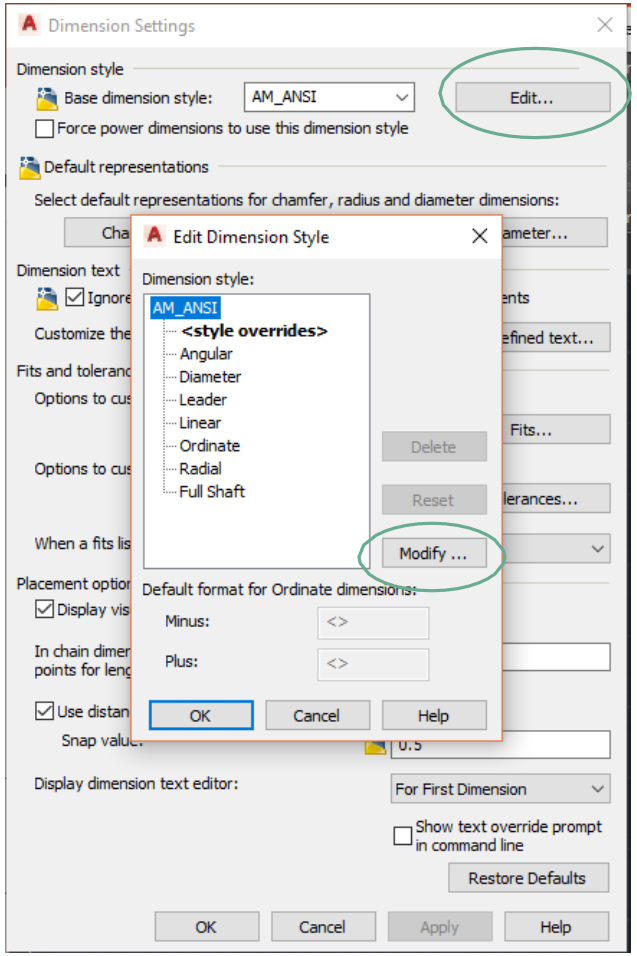
Dimensions

Size and color of dimensions

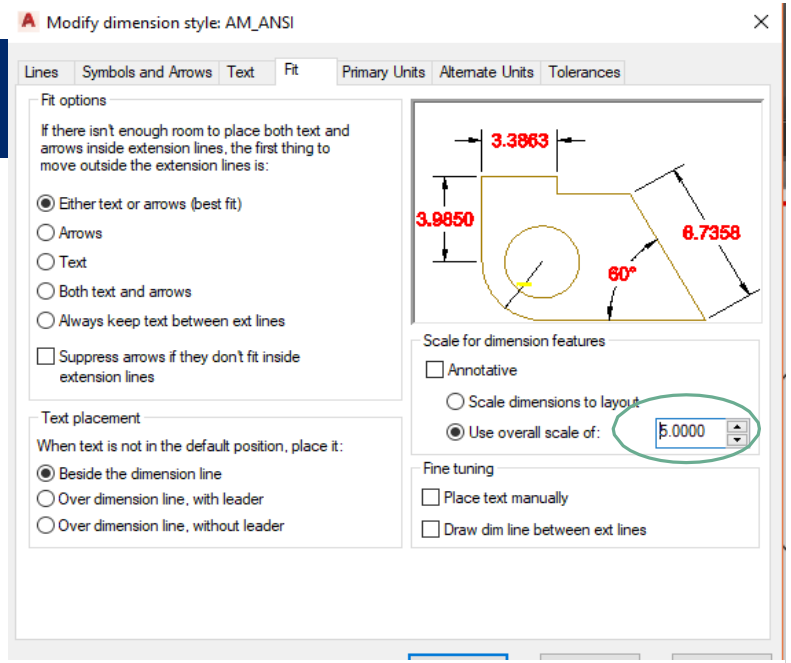
- Follow the steps in order to change the color and to increase the size of dimensions



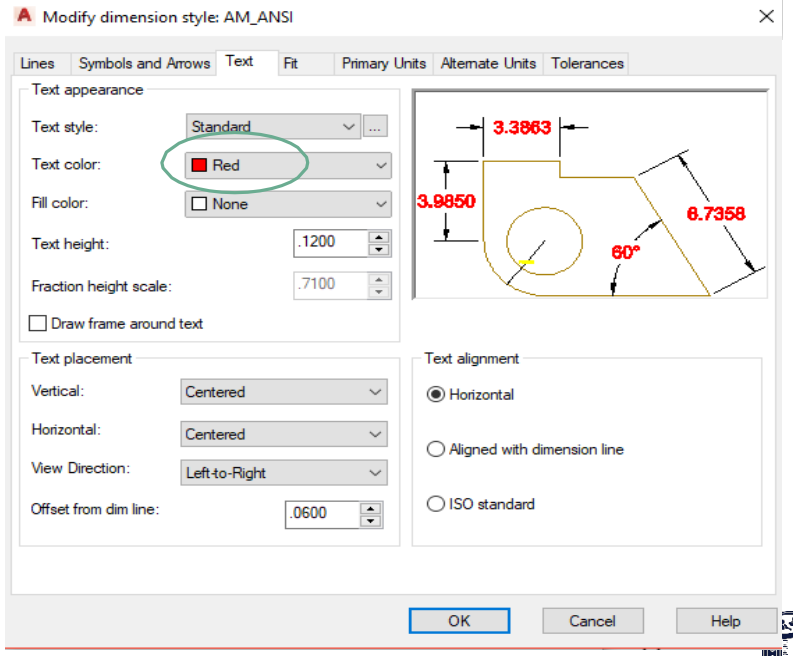
1



2

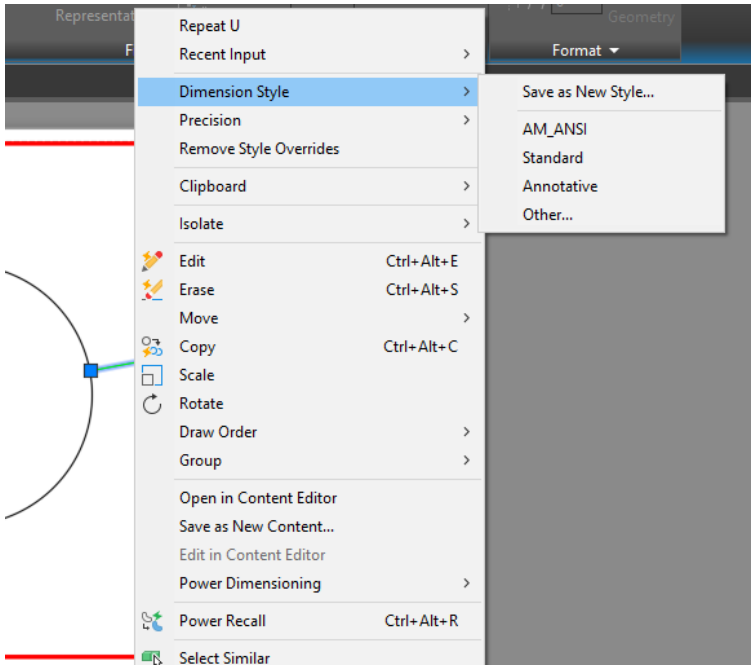


3



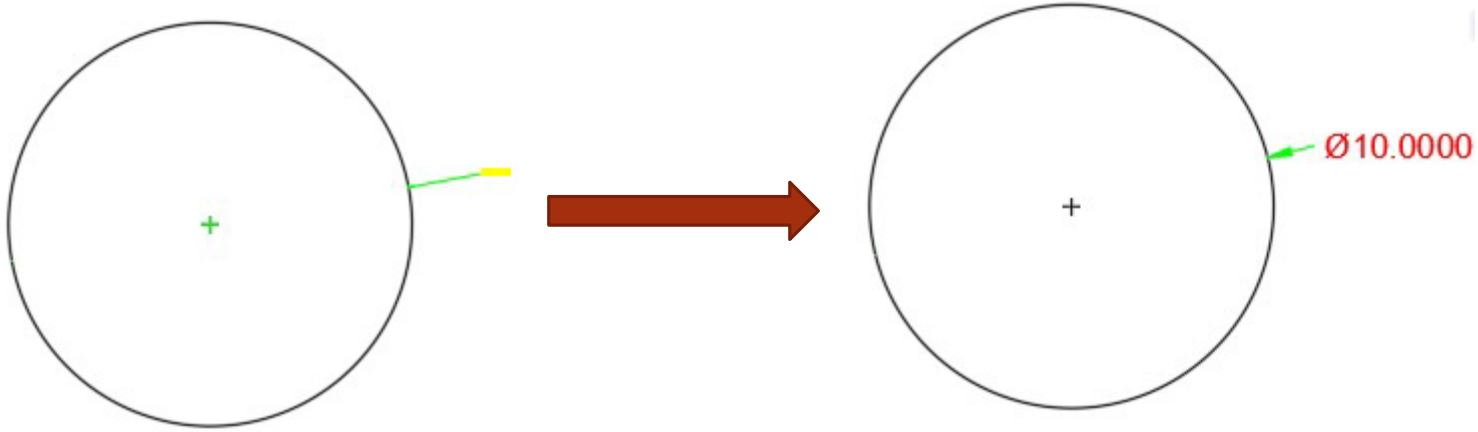
4

Dimensions



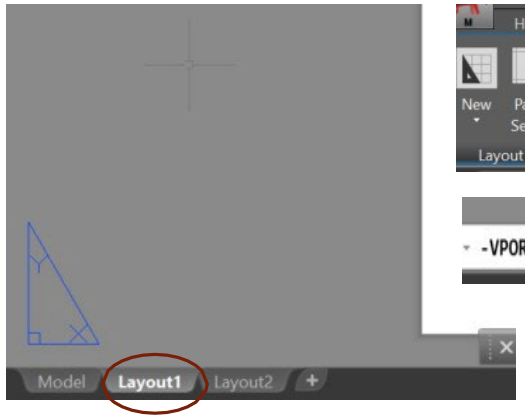
5

If the dimension size didn't change, you probably need to change your current dimension style to the one you edited as in step 5.

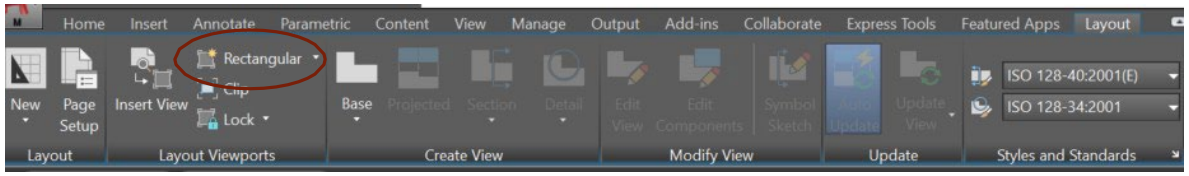


Layout

By default, AutoCAD starts you off in model space. When you're ready to print or plot, you then switch to 2D paper space, with its layouts and viewports,

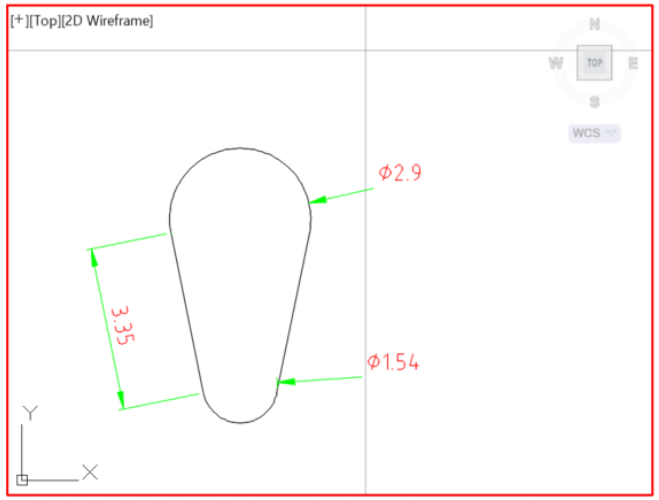


1



2

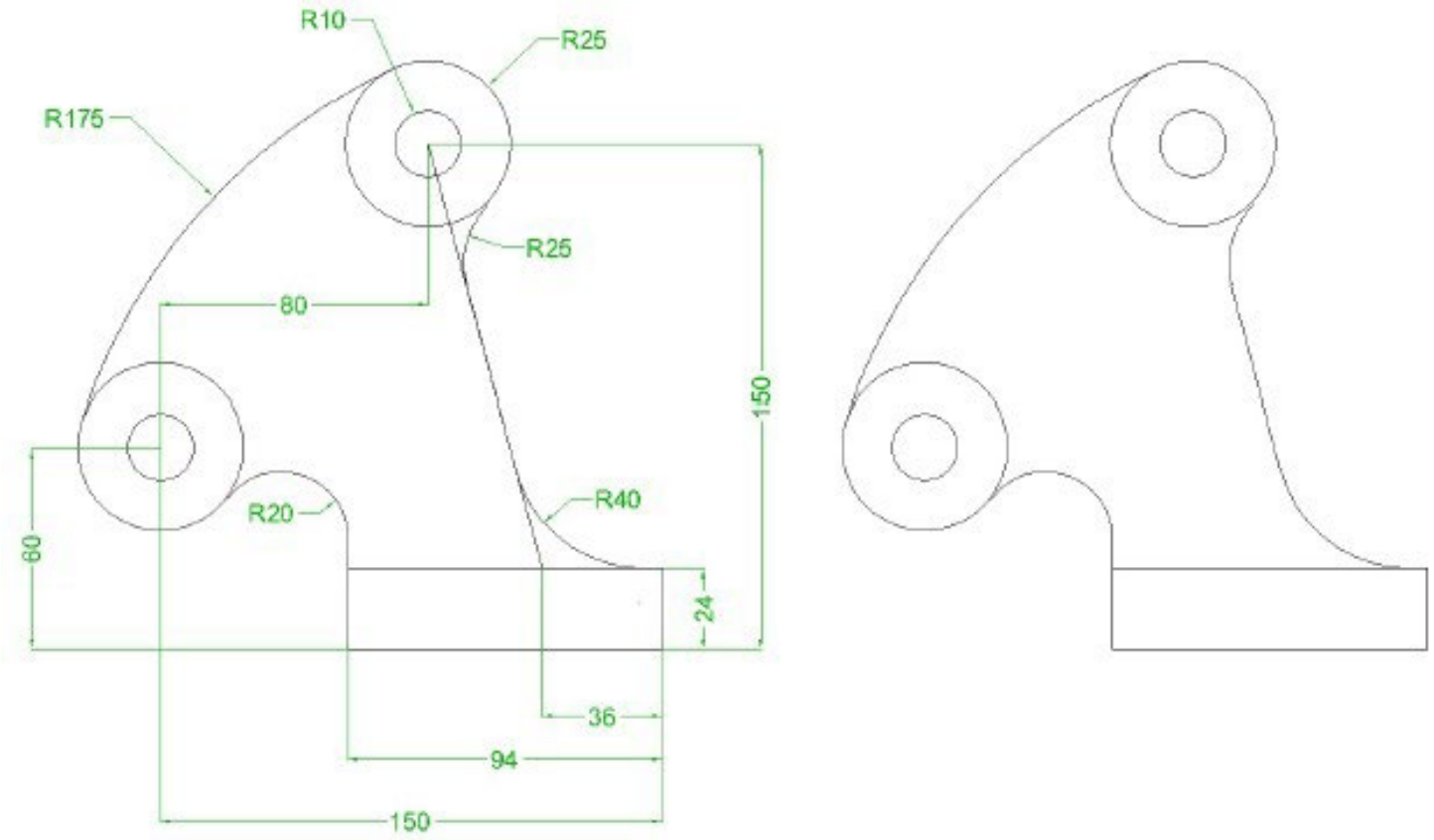
3



Example of a drawing in a paper layout

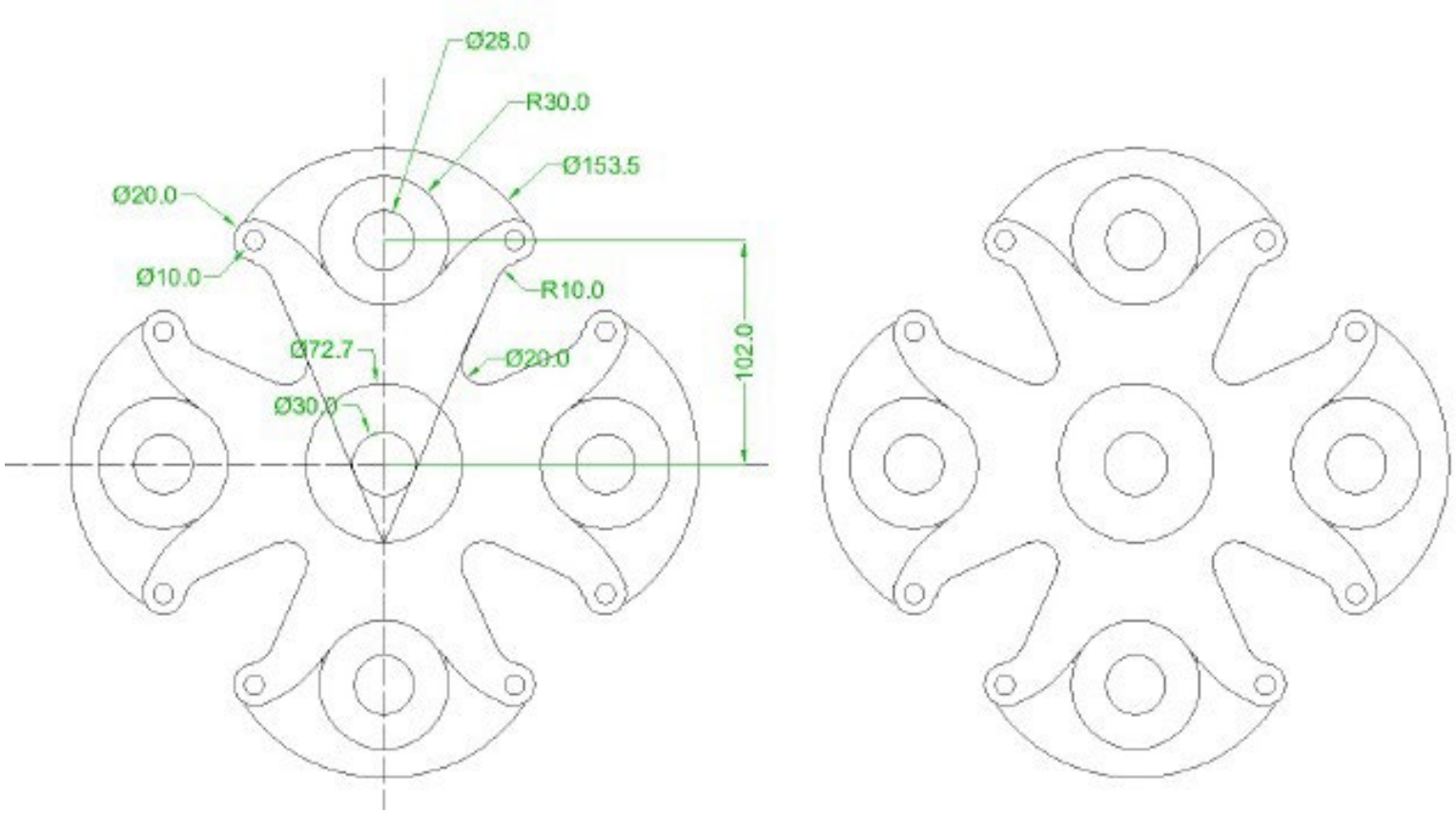
Class Work1

Draw the following shape with the exact given dimensions. (show your final shape in a paper space "layout" with dimensions)



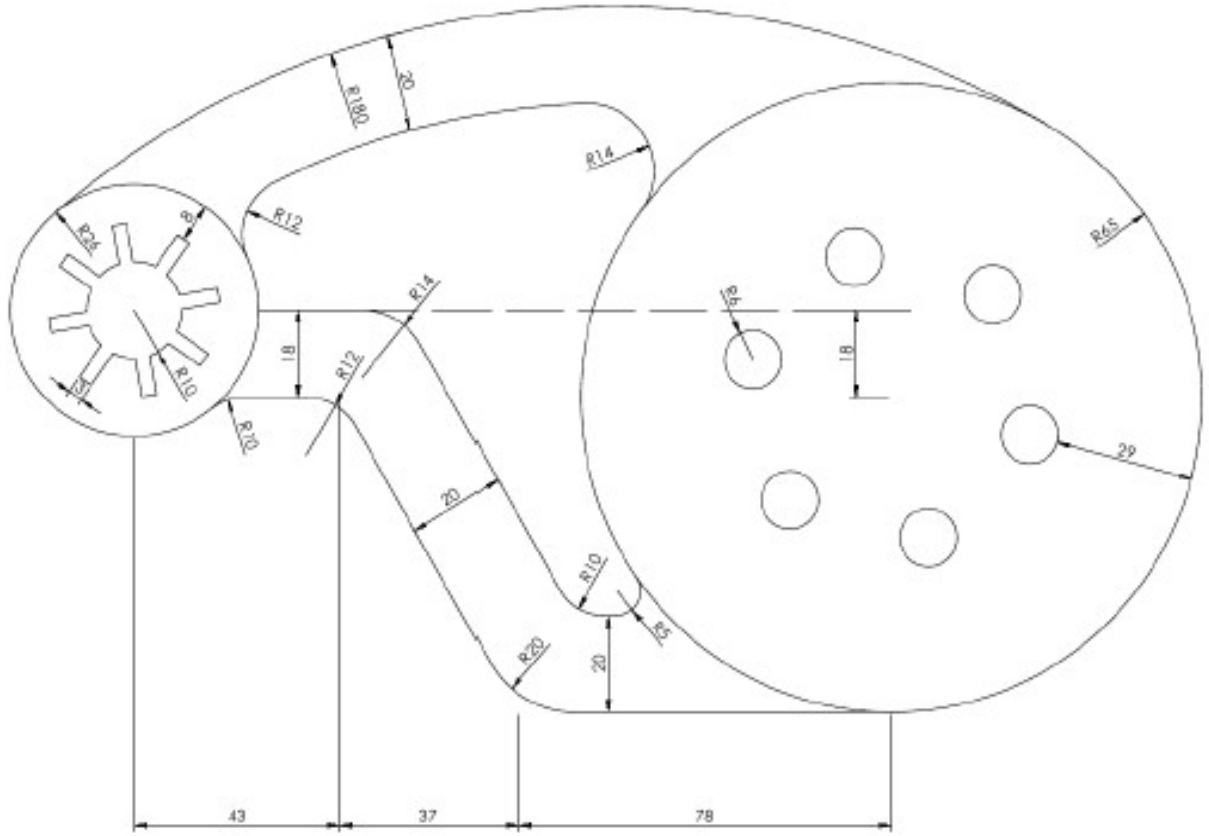
Class Work 2

Draw the following shape with the exact given dimensions. (Hint: Use the Array option) (show your final shape in a paper space "layout" with dimensions)



Class Work 3

Draw the following shape with the exact given dimensions. (show your final shape in a paper space "layout" with dimensions)



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