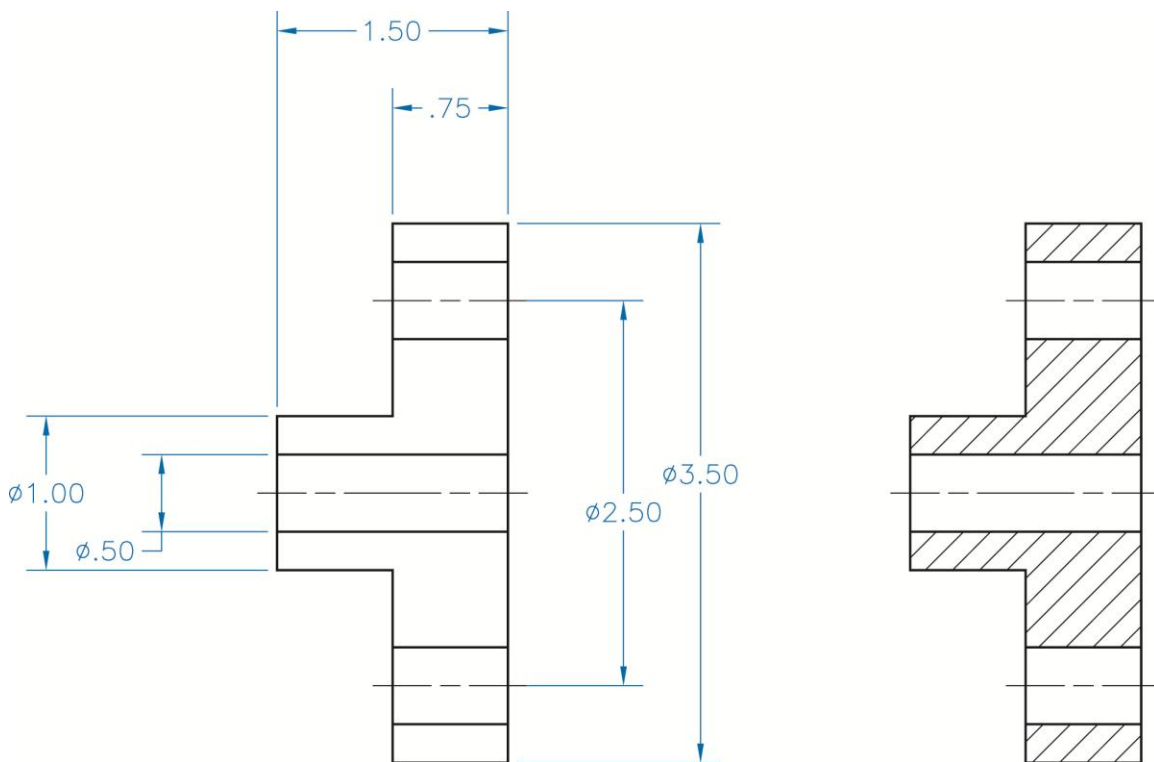


## Exercise 23-1

1. Start AutoCAD if it is not already started.
2. Start a new drawing from scratch or use a decimal template of your choice.  
Save the drawing as EX23-1.
3. Set up the appropriate layers, including a layer for hatch patterns.
4. Use the **PLINE** and **LINE** commands to draw the dimensioned view shown. Be sure the geometry is accurate and the area is closed. Do not add the dimensions.



5. Use the **Pick Points** option of the **HATCH** command and the default settings to make a full section of the object as shown.
6. Draw the concentric objects shown in Figure 23-11. The large circle is  $\phi 1"$ , the distance across the hexagon flats is  $.65"$ , and the small circle is  $\phi .25"$ .
7. Copy the objects twice to create three sets.

8. Use the **HATCH** command three times with the **Pick Points** option and default settings to add the hatch patterns shown in Figure 23-11. Adjust island detection as necessary to pick a single point to apply each hatch.
9. Resave and close the file.
10. Keep AutoCAD open for the next exercise, or exit AutoCAD if necessary.