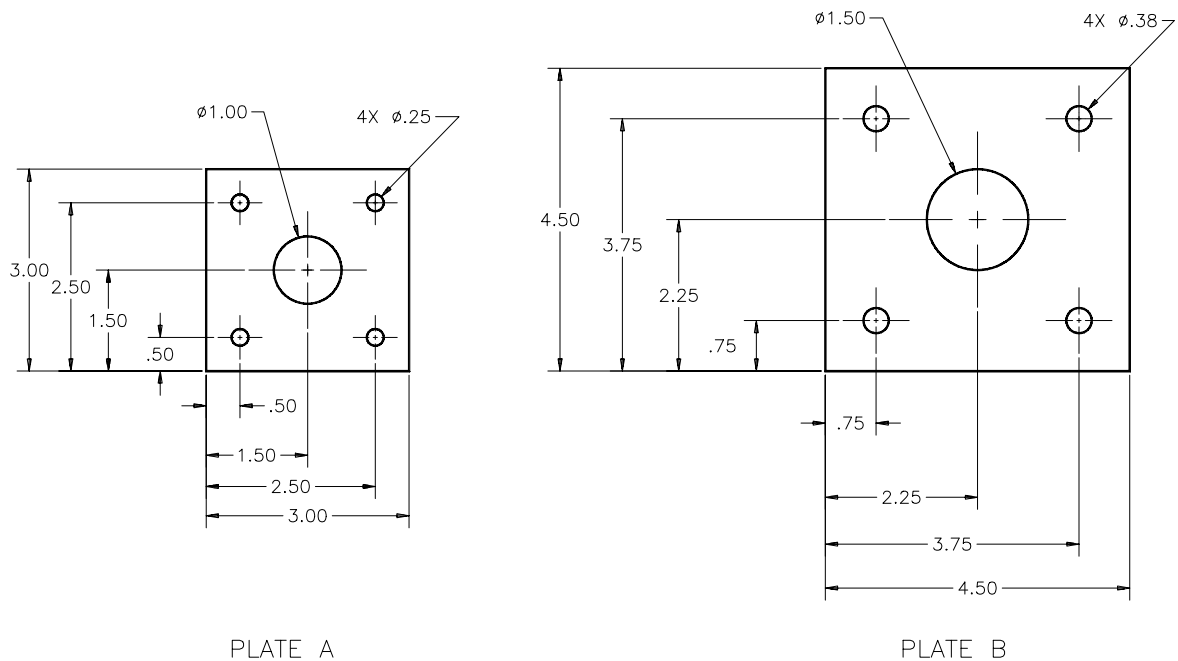


## CHAPTER 23 EXERCISES

### 1. Plate

Draw the steel plate according to the dimensions shown in Figure ME23-1, Plate A. *Copy* the plate so that there are two identical figures. Use the *Stretch* and *Move* modes of *Grips* to resize and relocate the holes and the plate perimeter as shown in Plate B. *Save* the drawing as CH23EX1-M.

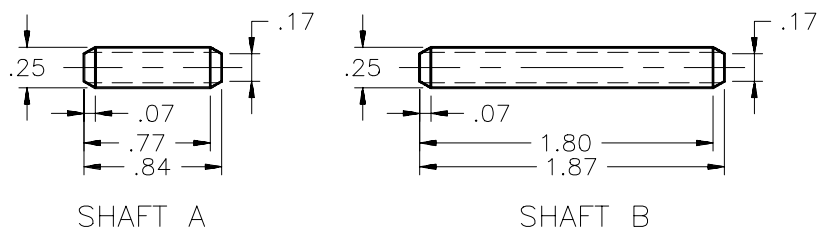
Figure ME23-1



### 2. Shaft

Draw Shaft A as shown in Figure ME23-2. *Copy* the shaft and use *Grips* to resize the new shaft to the dimensions as shown in Shaft B. *Save* the drawing as CH23EX2-M.

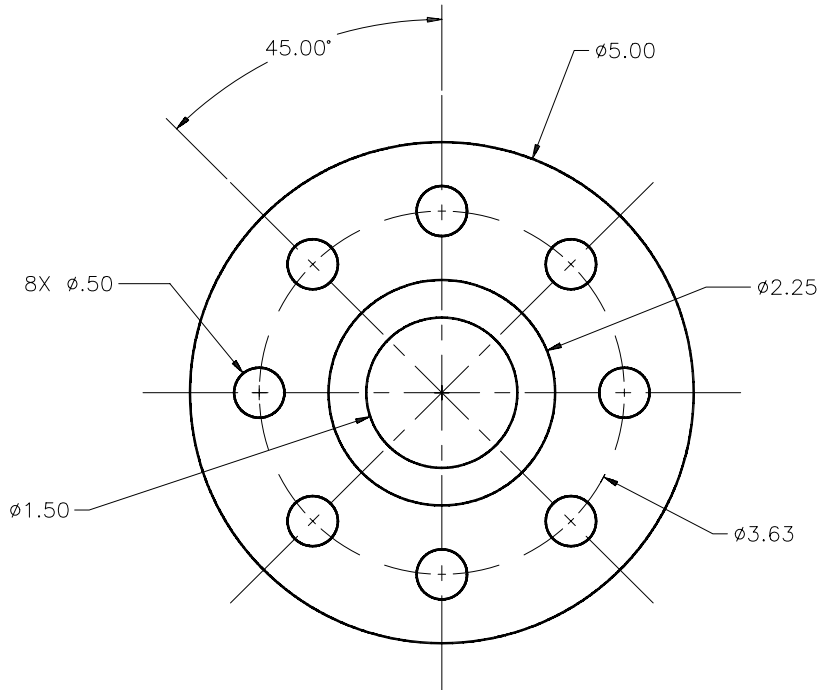
Figure ME23-2



3. Hub (Part 1)

Complete the drawing of the hub as shown in Figure ME23-3. Use *Rotate* with the *Copy* option of **Grips** to create the 45° angle center lines and to array the holes. *Save* the drawing as CH23EX3-M.

Figure ME23-3



4. Hub (Part 2)

*Open* CH23EX3-M and use **Grips** to make the modifications shown in Figure ME23-4. *SaveAs* CH23EX4-M.

Figure ME23-4

