

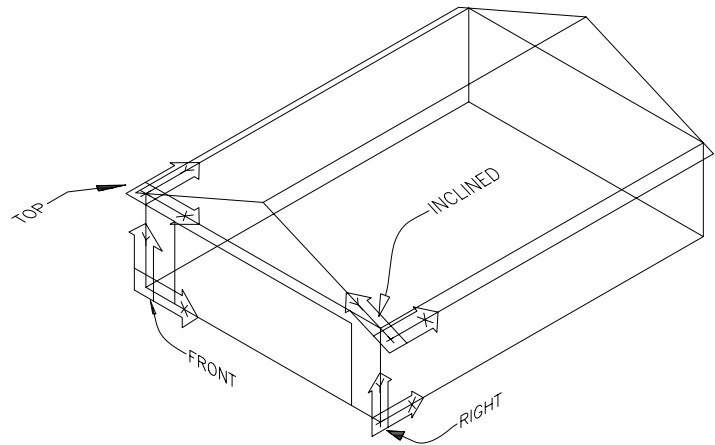
CHAPTER 36 EXERCISES

1. *Open* the **AR34-1** drawing you used in Chapter 34. *Freeze* the **TEXT** layer. Generate a **SW Isometric** view. Ensure the *Ucsicon* is *On* and set to *Origin*.

- A. Create a **UCS** with a vertical **XY** plane on the front surface of the model as shown in Figure AR36-1. *Save* the UCS as **FRONT**.

- B. Change the coordinate system back to the *World*. Next, create a **UCS** with a horizontal **XY** plane and with its origin as shown in Figure AR36-1 (**TOP**). *Save* the new UCS as the name **TOP**.

Figure AR36-1



- C. Change the coordinate system back to *World*. Next, create a new **UCS** aligned with the incline of the roof and with the orientation as shown in Figure AR36-1 (**INCLINE**). *Save* the **UCS** under the name **INCLINE**.

- D. Activate the **WCS** again. Create and *Save* the **Right** UCS.

- E. Use *SaveAS* and change the drawing name to **WIREUCS**.

2. Using the same drawing as in the previous exercise, make the **WCS** the active coordinate system. In this exercise, you will create a screen display similar to that in Figure 36-20 on page 839 of your textbook.

- A. Use the *Vports* command to create **2 vertical** tiled viewports. Use *Zoom* in each viewport if needed to display the model at an appropriate size. Make sure the *UCSicon* appears at the origin. Activate the left viewport. Set **UCSFOLLOW** to **1** in the left viewport only.

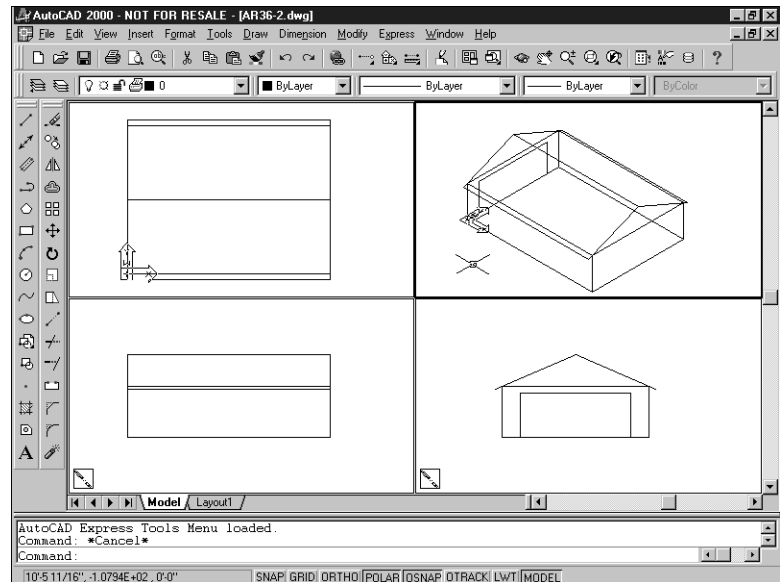
- B. In the right viewport, activate the **INCLINE** UCS. Your display should appear similar to that shown in Figure 36-20 of your book. Next, activate the **FRONT** UCS in the right viewport. Does the left viewport follow?

3. **UCSORTHO**

- A. *Open* the **AR34-1** drawing again. *Freeze* the **TEXT** layer. Ensure the *Model* tab is active. Type in **UCSORTHO** and ensure the setting is **0**.

- B. Enter the *Vports* command. From the *Viewports* dialog box that appears, select *3D* from the *Setup:* drop-down list. Next select *Four: Equal* viewports. In the resulting top, front, and right viewports (not the isometric), *Zoom* to a factor of *.025* to achieve a display similar to that shown in Figure AR36-2. Notice that the World Coordinate System is active in all viewports since the *UCSORTHO* setting is 0. Since the WCS is current in all viewports, the front and right viewports display the “broken pencil” icon. *Save* the drawing as *AR36EX3A*.

Figure AR36-2



- C. Next change the number of *Vports* to *Single*. Reset *UCSORTHO* to 1. Use *Vports* once again to create *Four: Equal* viewports and use the *3D Setup*. In the new set of viewports that appear, notice that the World Coordinate System is active in the isometric and top viewports, but two new UCSs have been created that are normal to the view direction in the front and right viewports. In other words, a *UCSORTHO* setting of 1 creates orthographically oriented UCSs for all newly created views (such as *Top*, *Front*, *Right*, etc.) or newly created viewports. In the top, front, and right viewports (not the isometric), *Zoom* to a factor of *.025* to achieve a display similar to that shown in Figure AR36-3. Use *SaveAs* and name the drawing *AR36EX3B*.

Figure AR36-3

