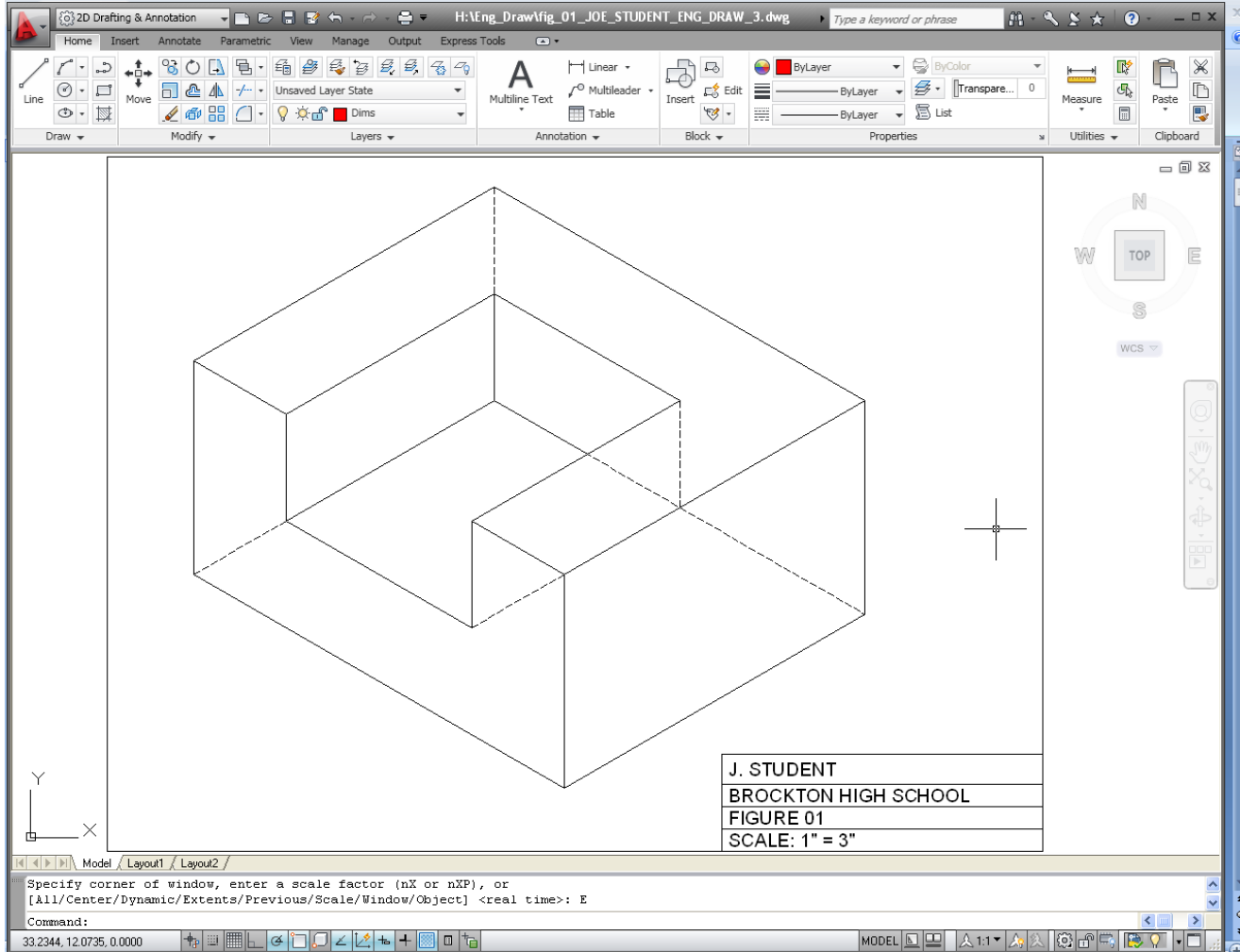


Figure 01 Tutorial – AutoCAD 2011

ISOMETRIC FIGURE, NO DIMENSIONS



Objectives:

- Understand **File, Open** and **Close** procedures
- Understand **line sketching**
- Understand **Trim, Object Snap, Command Line, Limits, Extents, Coordinate System, Linetypes, Properties, Creating Tables** and **Printing/Plotting**
- Understand **Templates**

Create a New Drawing

1. Go to the **Application Menu > New**. This will bring you to a folder location that contains **Templates**. Choose the **"acad" template > Open**. This will create a new AutoCAD file using the standard **acad** template.

If **Grid Lines** are showing in your display, type **Grid** in the **Command Line**, then type **Off > Enter**. The grid display will now be set as **off**. [Watch Video 1](#)

Setting the Limits and Drawing Area

2. In the **Command Line**, type **Limits > Enter**. Notice that the **Lower Left Corner** is specified as **<0.0000, 0.0000>**. This means that the lower left corner will be at the “**zero, zero**” coordinates (AutoCAD rounds to four decimal places). Hit **Enter** to accept the lower left coordinates. Set the **Upper Right** coordinates to **36, 27**, then hit **Enter**. This gives us a **Paper Limits Area** of **36” X 27”** – enough room to fit our drawing. We will scale the drawing to fit our paper later.

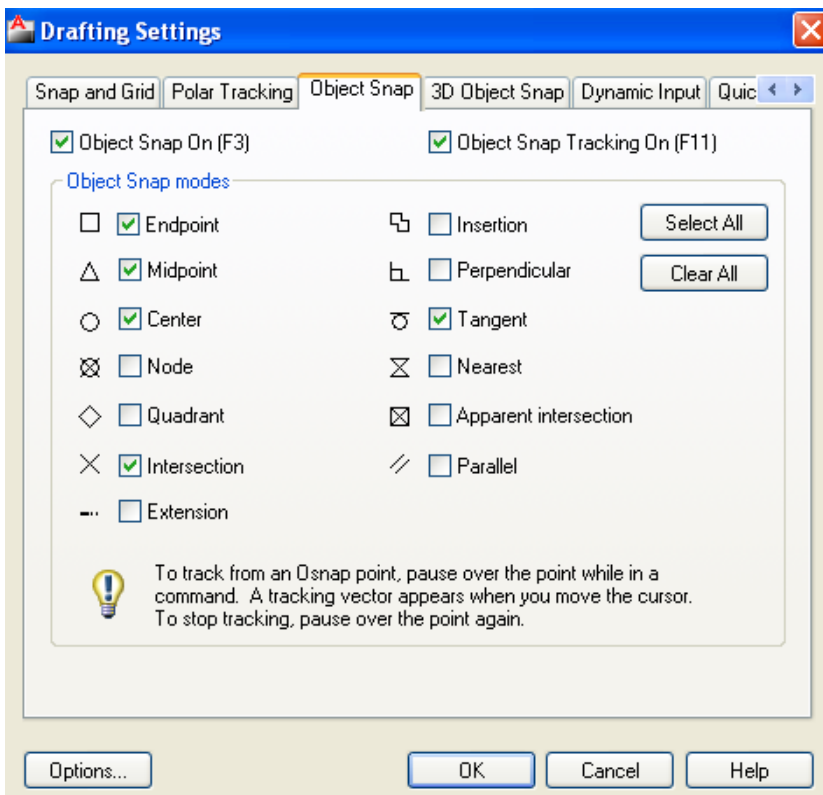
Next, we will set our **Drawing Area** so that we have a rectangular border that is ½” inside the paper. Select the **Rectangle** tool. Type **.5, .5 > Enter**. This sets the first point of the rectangle to a point ½” from the lower left of the **limits** you set in the previous step. Next, type **35 ,26 > Enter** to set the upper right coordinates of the rectangle. Press **Z > Enter, E > Enter** to **Zoom to the Extents** of the drawing. [Watch Video 2](#)

Saving Your Drawing

3. Save your drawing into your **ENG_DRAW** folder within your **H:\ Drive (your ID number)**. Be sure to save using **fig_01_INL_ENG_DRAW_3**. Be sure to use YOUR initials (not INL), and YOUR period (3 in the example) **NEVER SAVE INTO My Documents!!** [Watch Video 3](#)

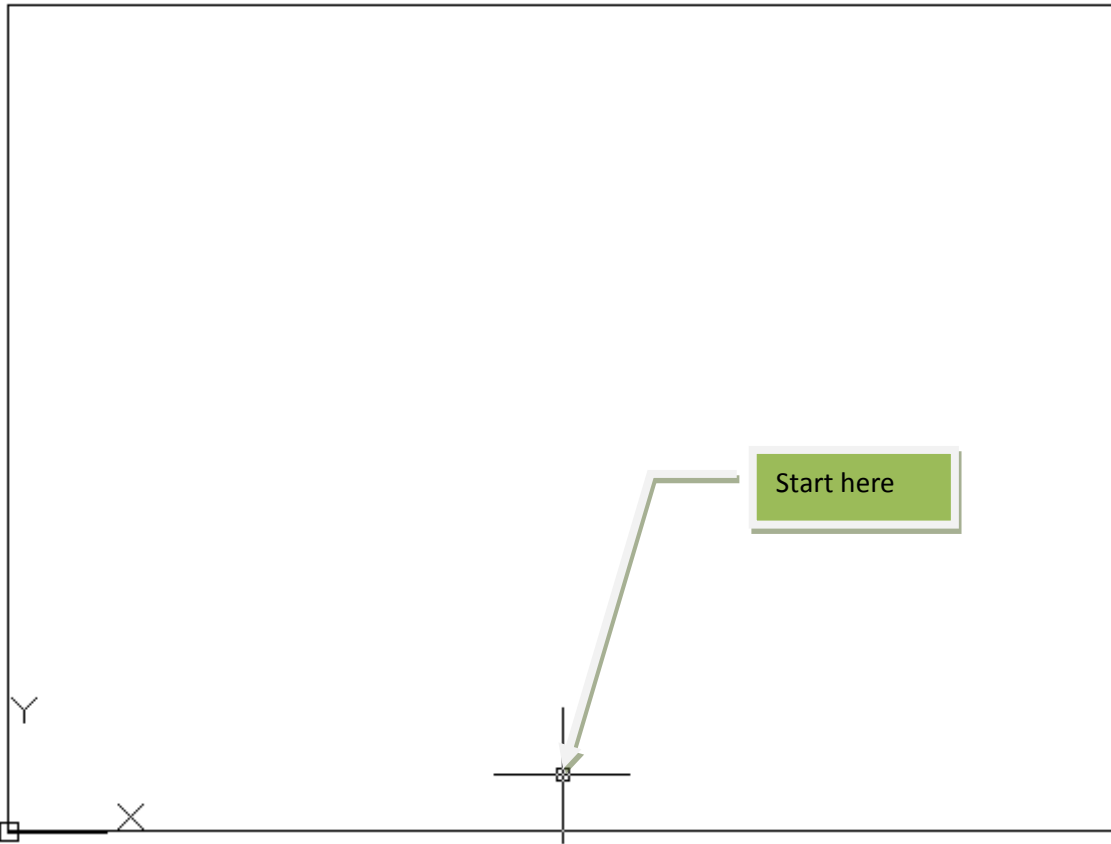
Start Your Drawing

4. **Right Click** on the **Object Snap**  button on the **Status Bar > Settings**. Choose the **Object Snap** tab. Choose the settings below, then click **OK**:

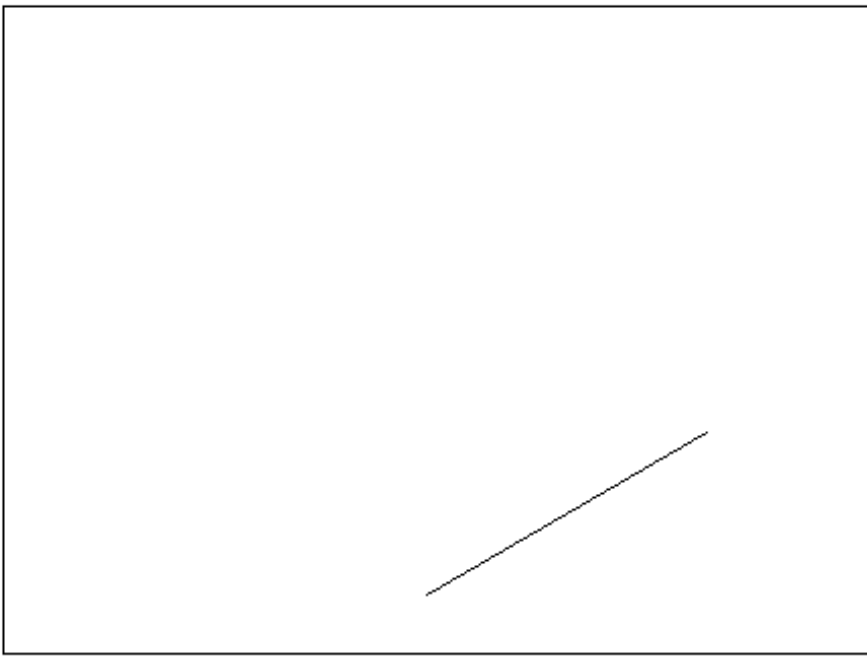




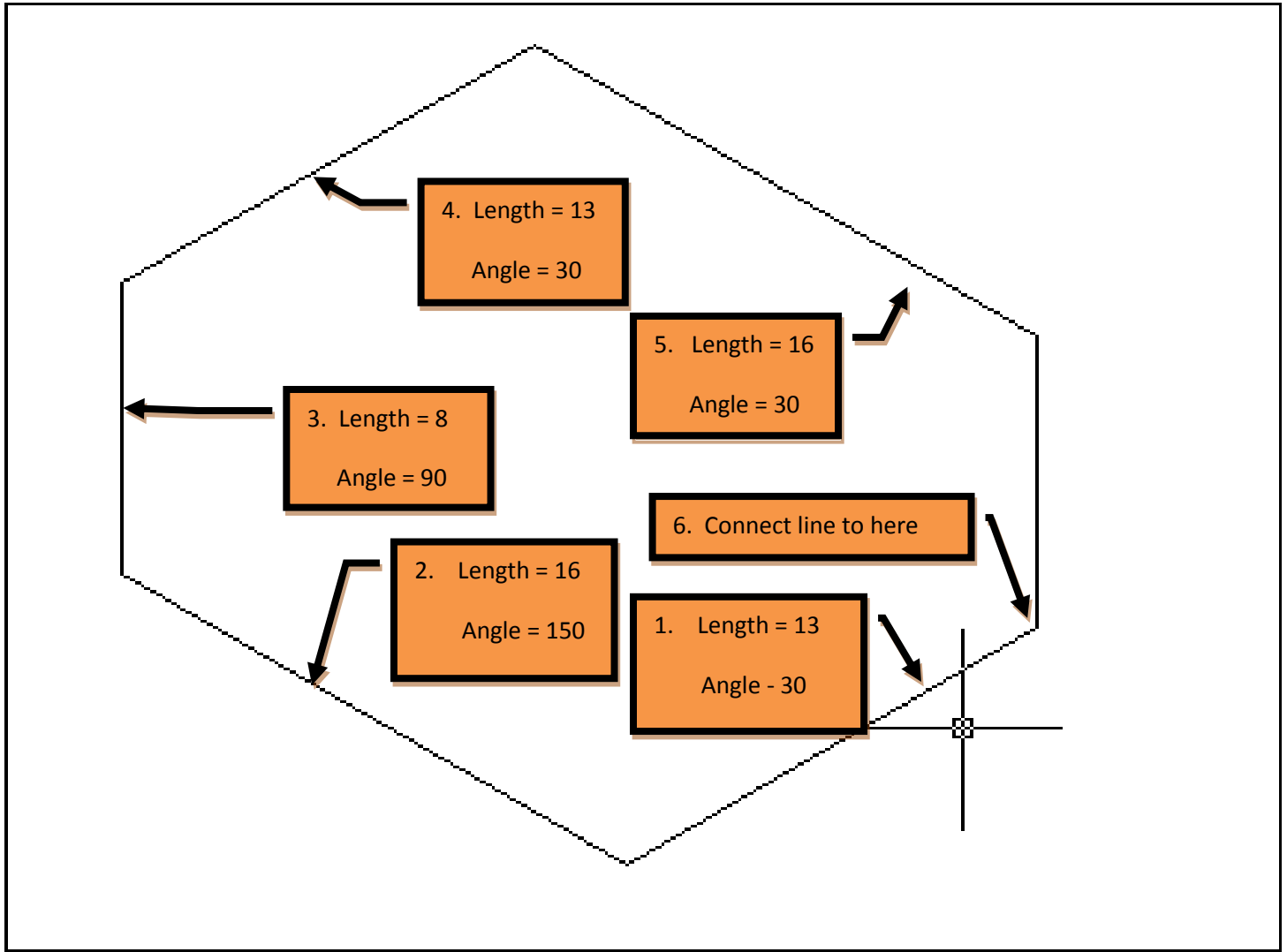
5. Select the **Line** tool . Start drawing your line by clicking near the bottom of the rectangular border, at approximately the middle of the drawing space. **See Below:**



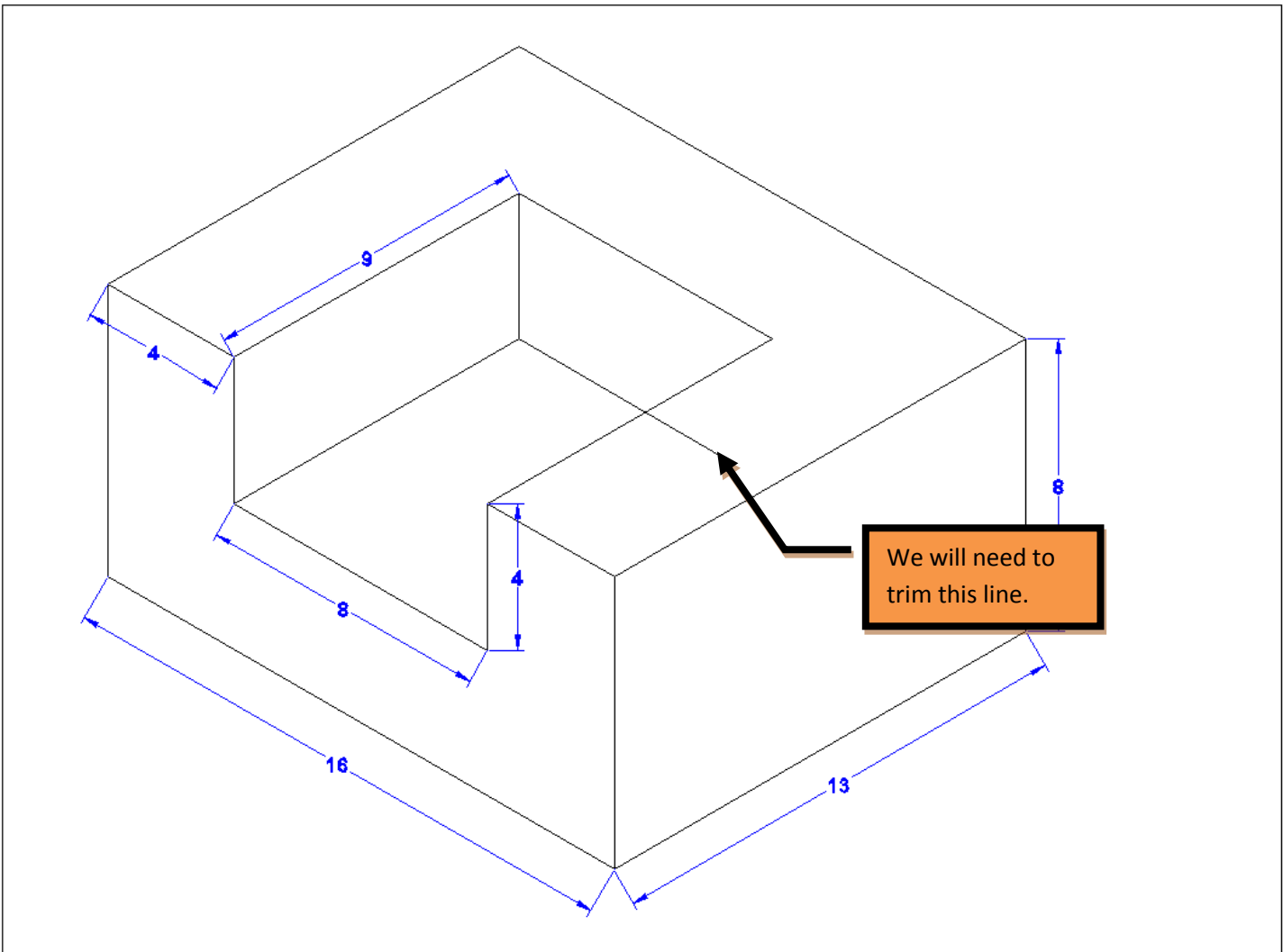
6. Draw the line 13", at an angle of 30°. See Below:



7. Continue drawing the lines using the same technique – enter the length, then the angle. See the description below: **Ctrl-S to SAVE!!! Watch Video 4**

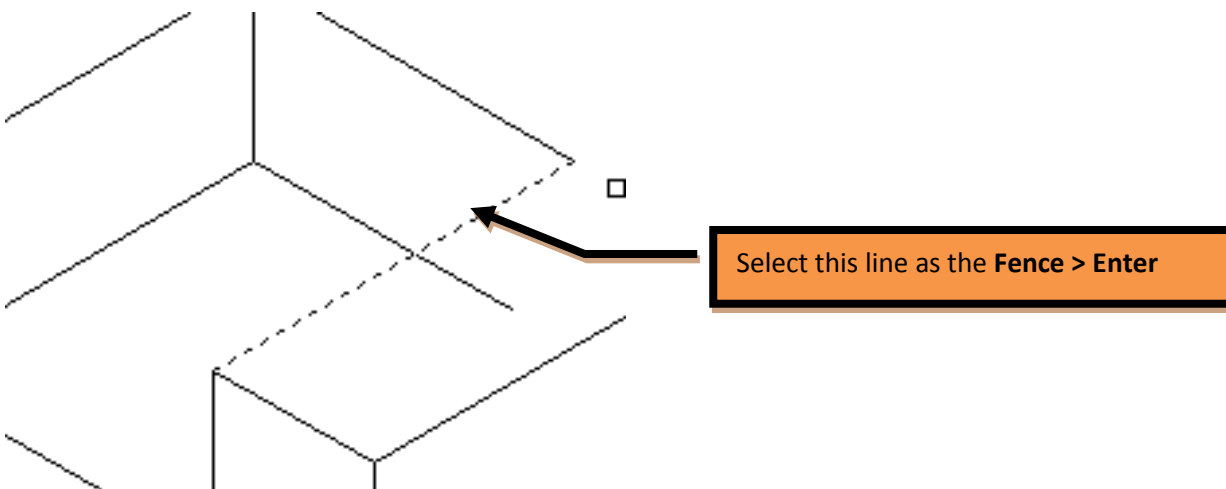


8. Draw the rest of the lines, using the same techniques. **Ctrl-S to SAVE!!!** See Below: [Watch Video 5](#)



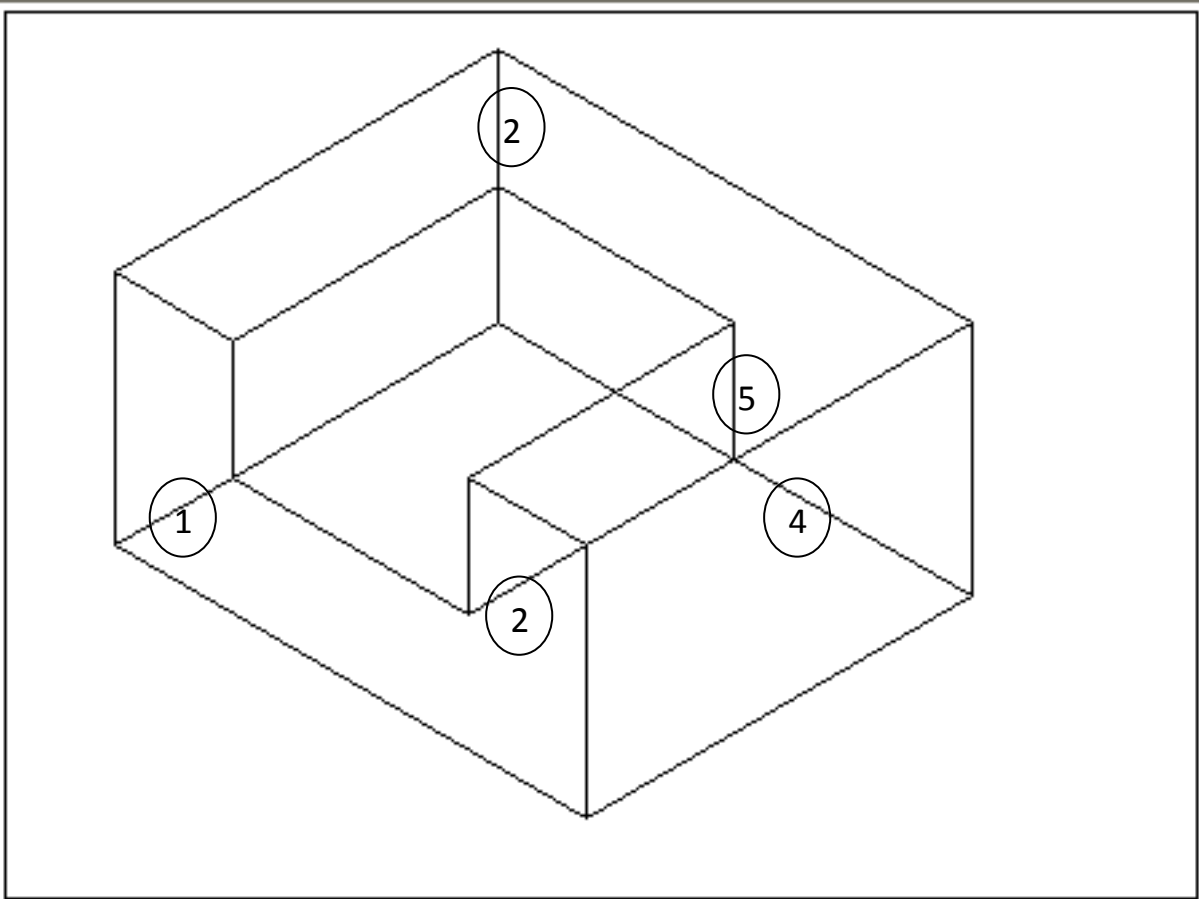
9. We purposely drew one of the lines too long – we will have to **trim** this line. The **Trim** command works by selecting a “fence” which is used as a cutting edge, then selecting the segment to trim. Here’s how:

10. Select the **Trim**  icon from **Home > Modify**, or type **Trim** in the command line. Next select the “fence”, then **Enter**. See below:

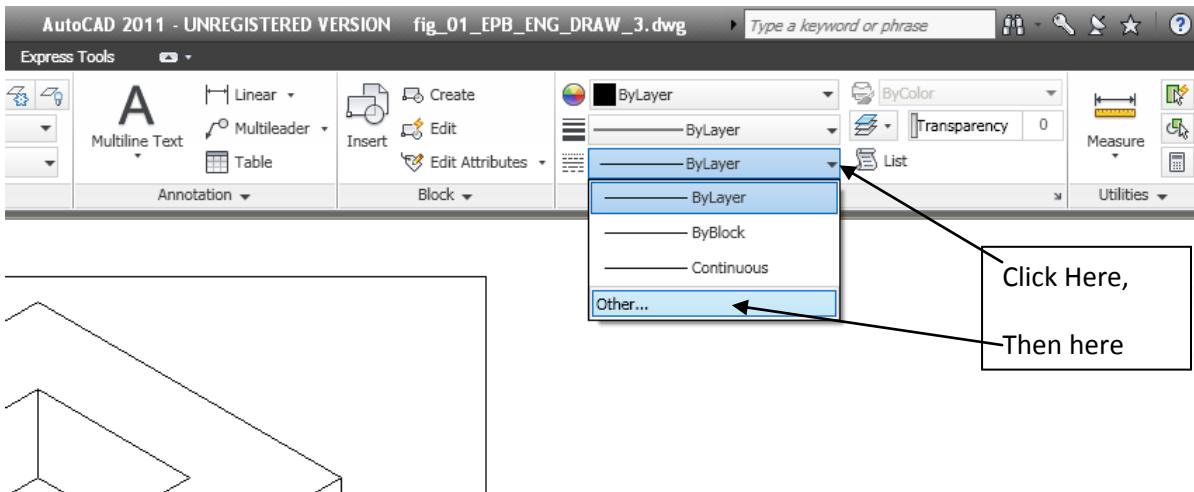


11. Next, select the line segment that you wish to delete, then press **Enter**. **Ctrl-S to SAVE!!! Watch Video 6**

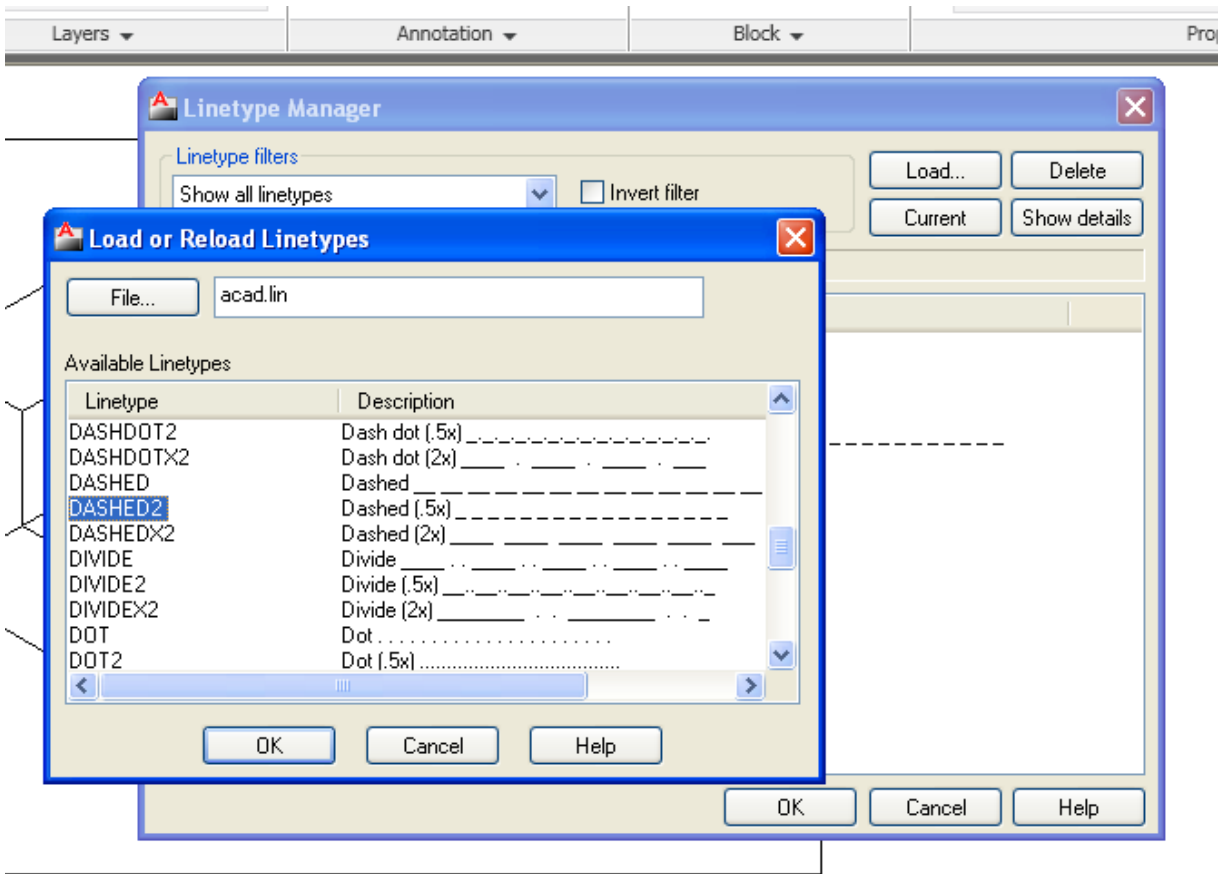
12. Next, Draw the **Hidden lines**: See below



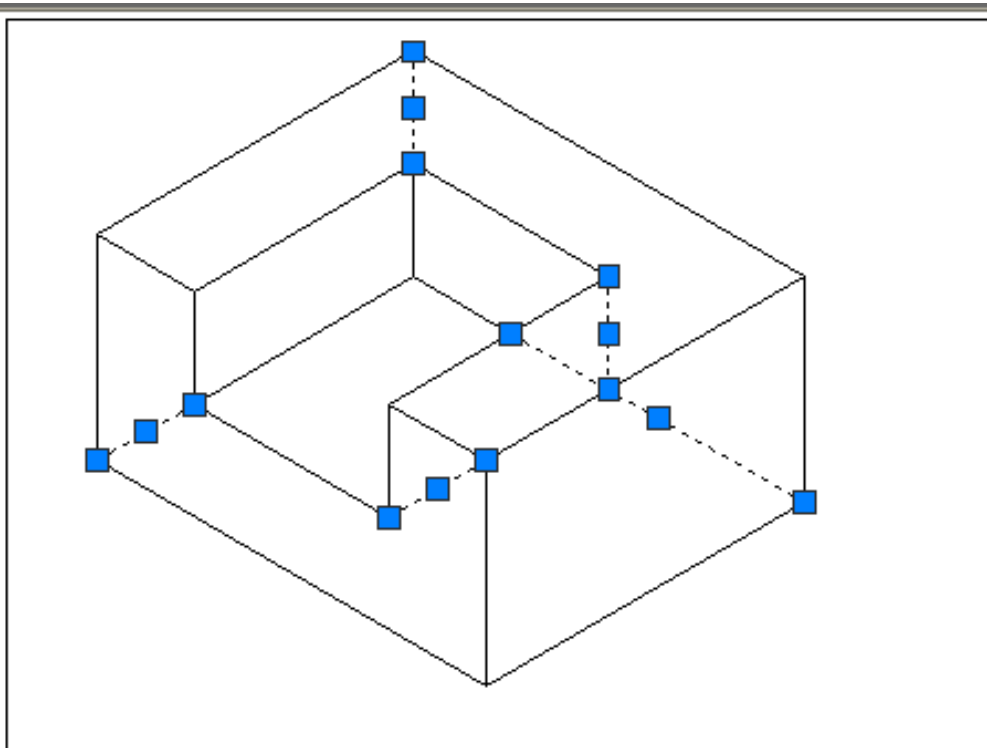
13. Since some of the lines are “hidden”, we will have to change their **linetype**. In the Command Line, type LINETYPE. Alternatively, you can go to the **Home Tab > Properties > Linetype > Other**.



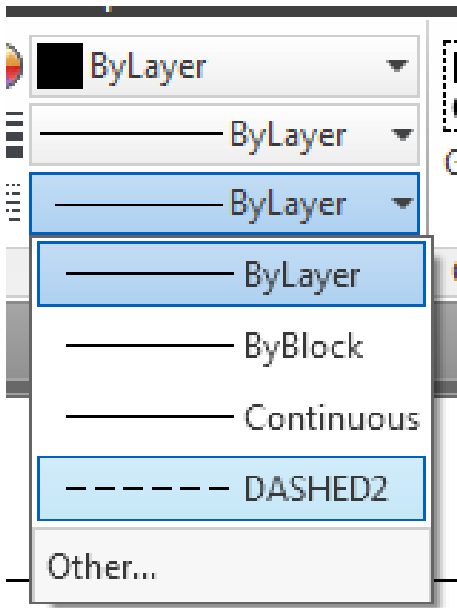
14. Click **Load > DASHED2 > OK > OK**. See Below.



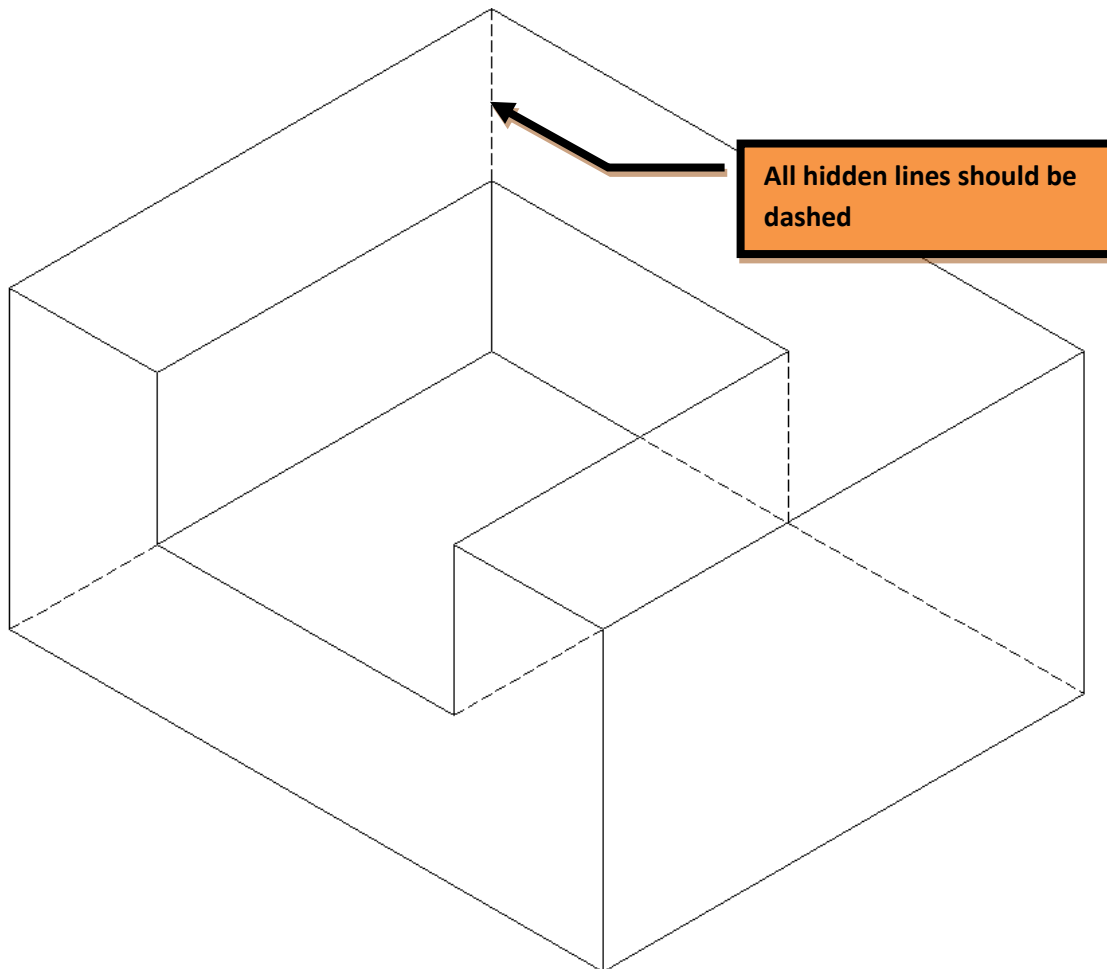
15. Next, select the lines that need to be hidden by clicking on them. Below:



16. In the Properties panel, select **Linetype** > **Dashed2**. Hit **Escape** when finished. **Ctrl-S to SAVE!!! Watch Video 7**

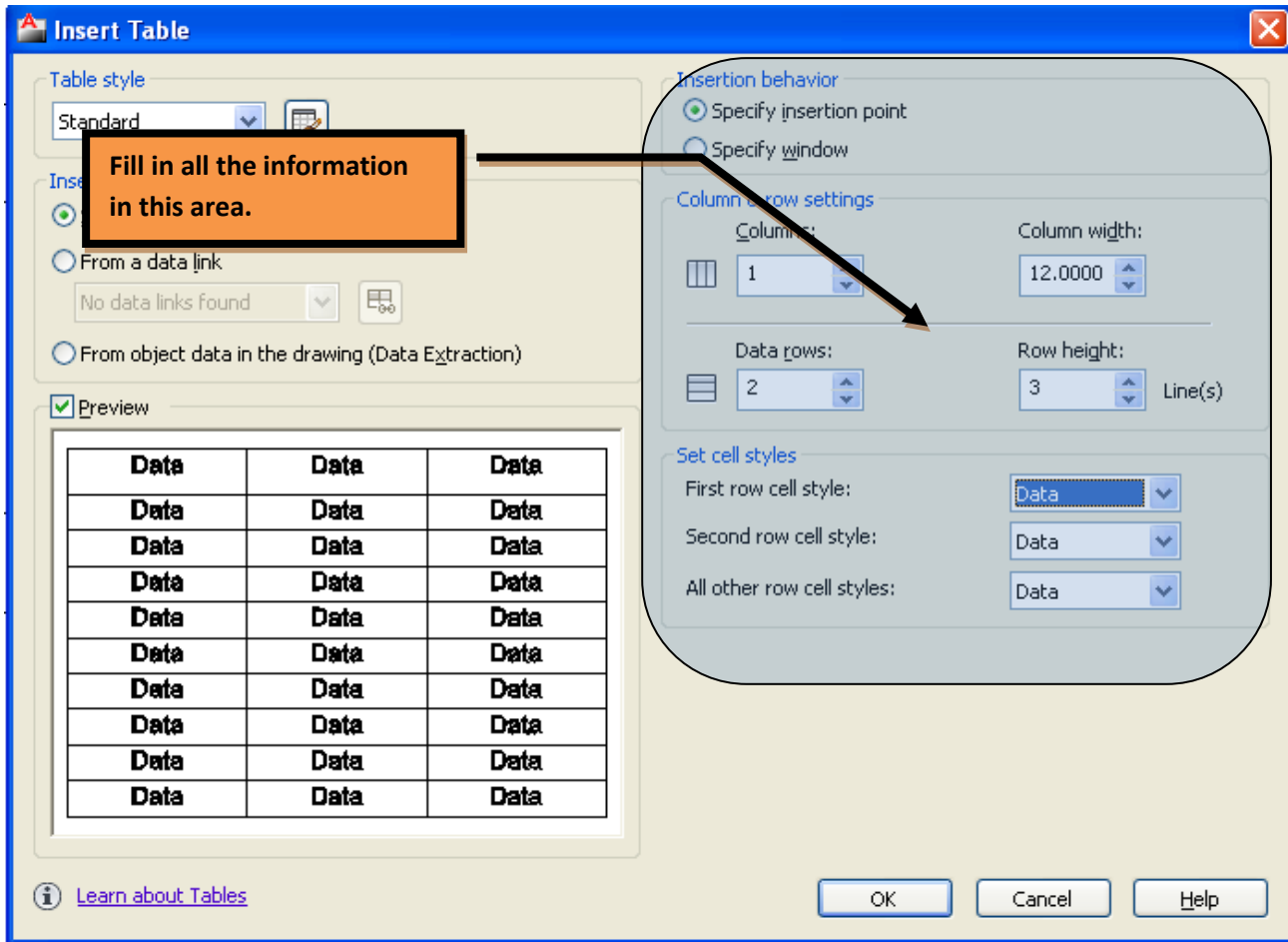


17. Your drawing should look like the one below:

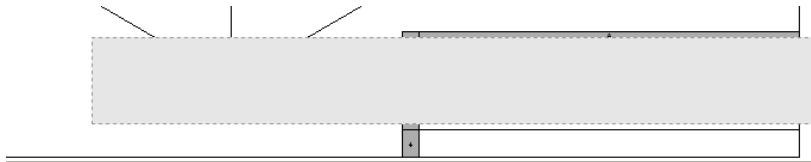


Create a Table

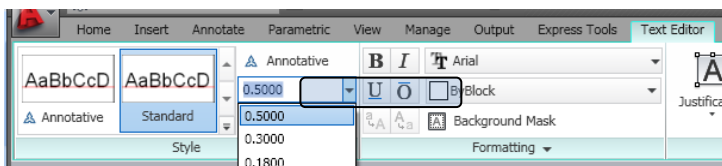
18. Go to the **Annotate tab > Table > Table**. Fill in the table like the one below, and click **OK**:



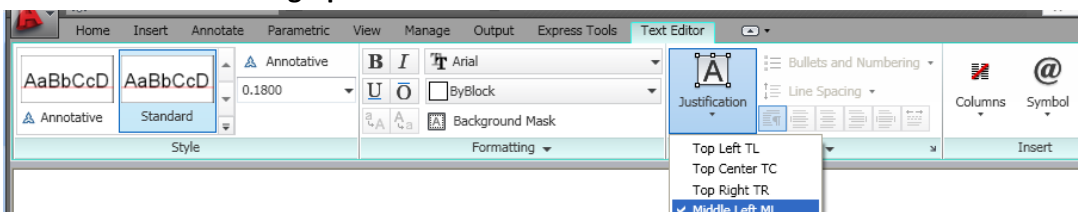
19. Click to drop the table in the **lower right corner** of your drawing. Hit the **Escape** key. This will bring you into the **Text Editor**.



20. Click in the **Style** tab. Set your **Text Height** as **0.5**.



21. Click in the **Paragraph** tab > **Justification**. Choose **Middle Left MS**



22. **Caps lock on!!** Hit the **Space Bar**, then type your **First Initial, Last Name**. Hit **Enter**.

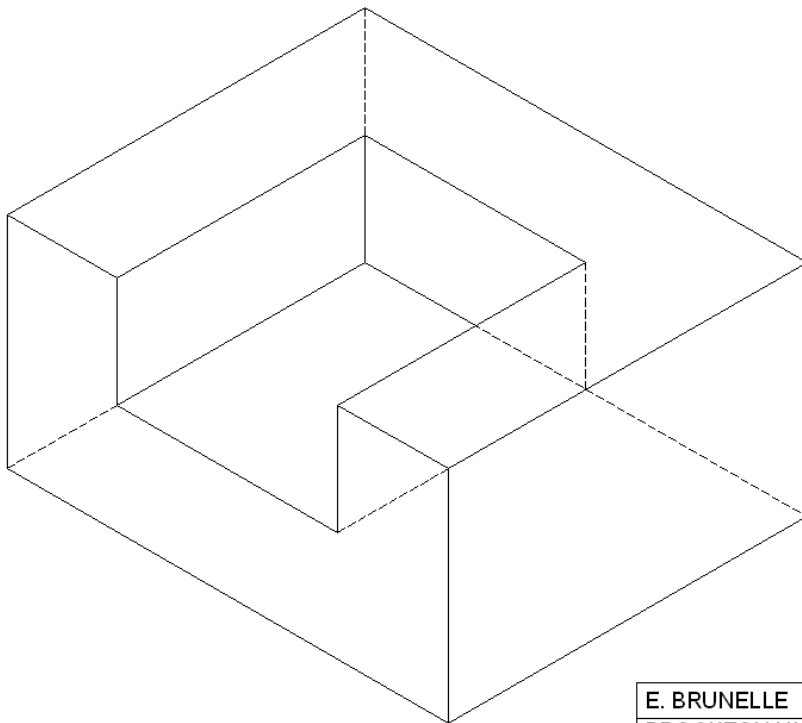
23. **Repeat** the procedure for each line of the table: **Ctrl-S to SAVE!!!** **Watch Video 8**

E. BRUNELLE

BROCKTON HIGH SCHOOL

FIGURE 01

SCALE: 1" = 3"



E. BRUNELLE

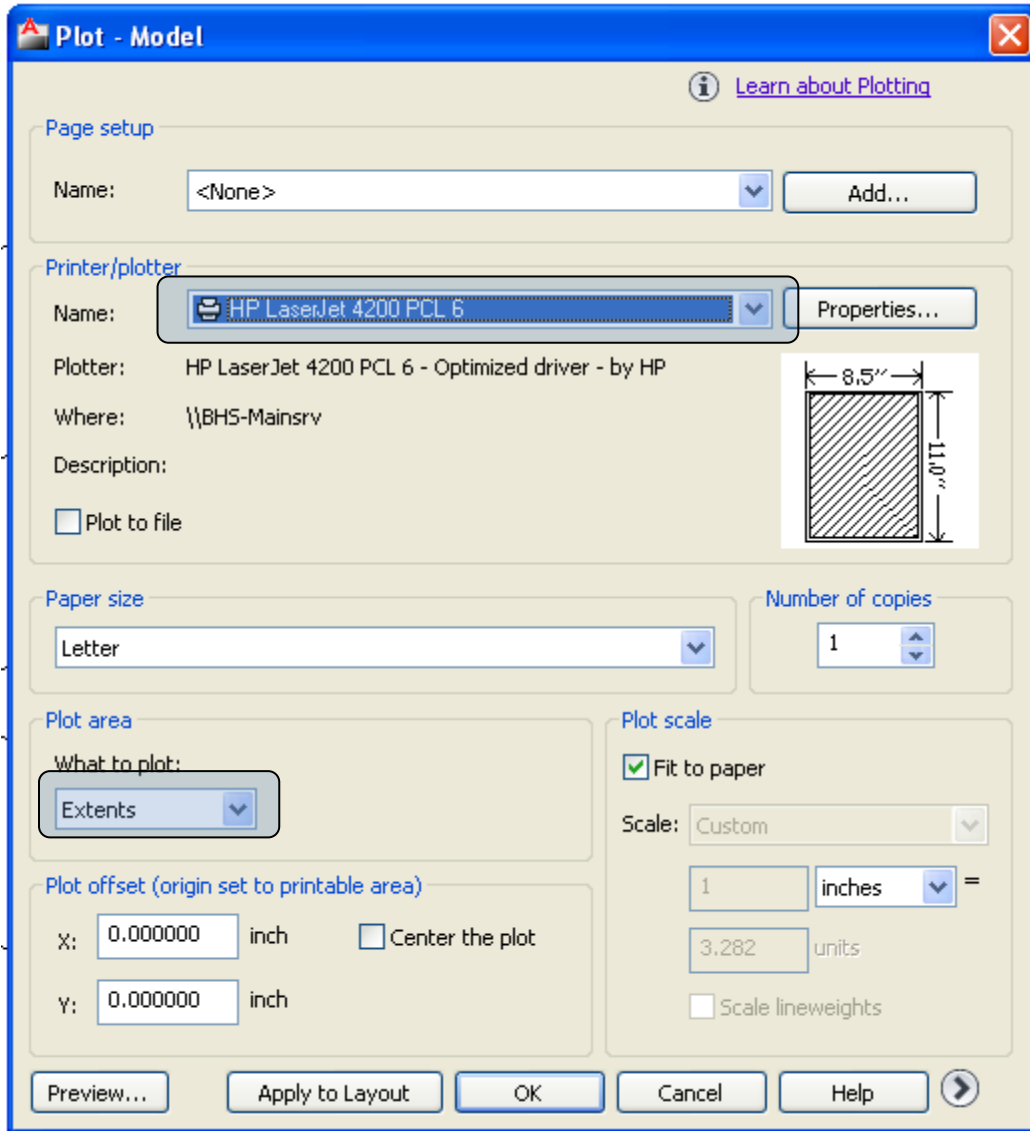
BROCKTON HIGH SCHOOL

FIGURE 01

SCALE: 1" = 3"

Printing your Drawing

24. Close your *Template* drawing, and **Open** your *Figure 01* drawing.
25. Go to **Application Menu > Print**. Fill out the **Plot – Model** dialogue like the one below.



26. Click **Preview** to be sure the plot is set correctly. Then, Click **Print**.

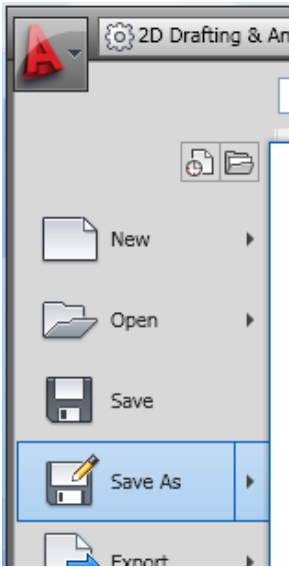
Create a Template

Since you will be using the same format for all of your AutoCAD drawings, it will be easier to save this drawing layout as a **template**. In the future, you WILL NOT have to set up:

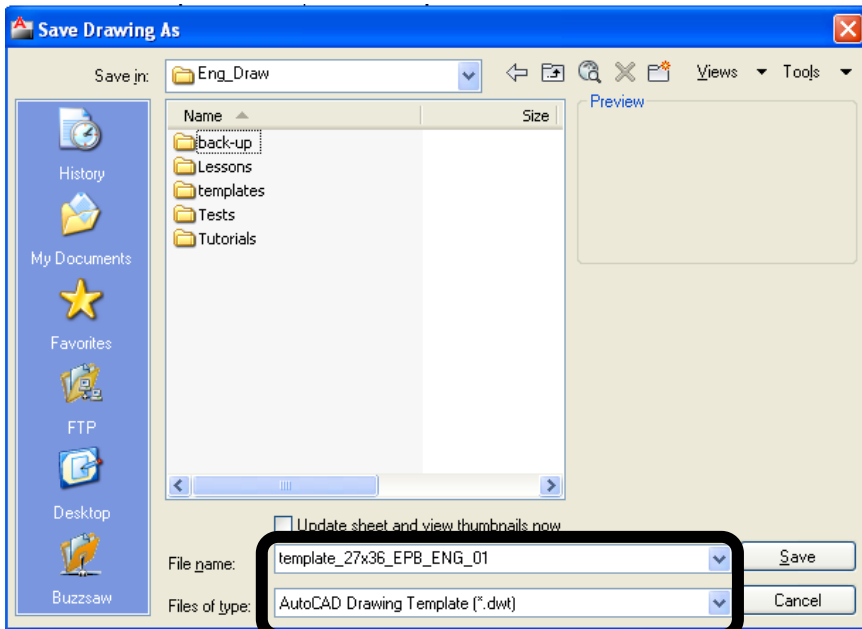
- Limits
- Extents
- Border
- Table

You will start future drawings by opening this template.

27. Go to **Application Menu > Save As**. Navigate to your **ENG_GRAW** folder.



28. Save as... **Filename: *template_27x36_EPB_ENG_01*** (YOUR initials, YOUR period number)
Files of Type: *AutoCAD Drawing Template (*.dwt)*



29. Click **OK**, then **OK** in the **Template Options** box. **Ctrl-S to SAVE!!! Watch Video 10**
30. Since you want the template to be **empty**, select the lines of your drawing by dragging a **selection window** from the **top left** to the **bottom right**. Hit the **Delete** key to delete the lines **Watch Video 11**
31. **Double Click** in the **"Figure 01"** section of the table. Highlight and delete **Figure 01**. **Double Click** in the **Scale** section, and delete the **1" = 3"** scale. You can leave the word **"Scale:"** there. **See Below: Ctrl-S to SAVE!!!**

