

# AutoCAD 2007 Training Manual

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## AutoCAD 2007 Training Manual

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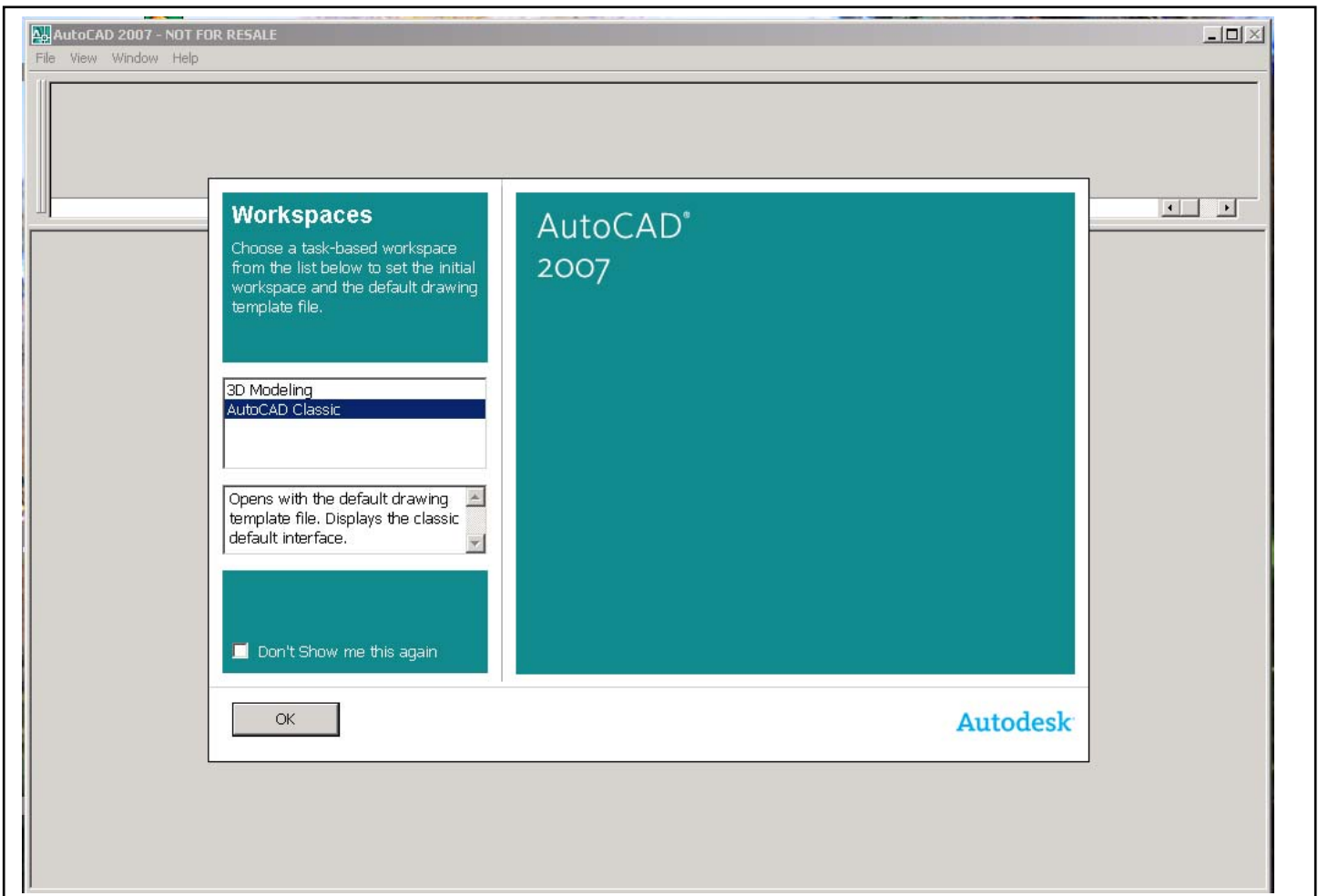
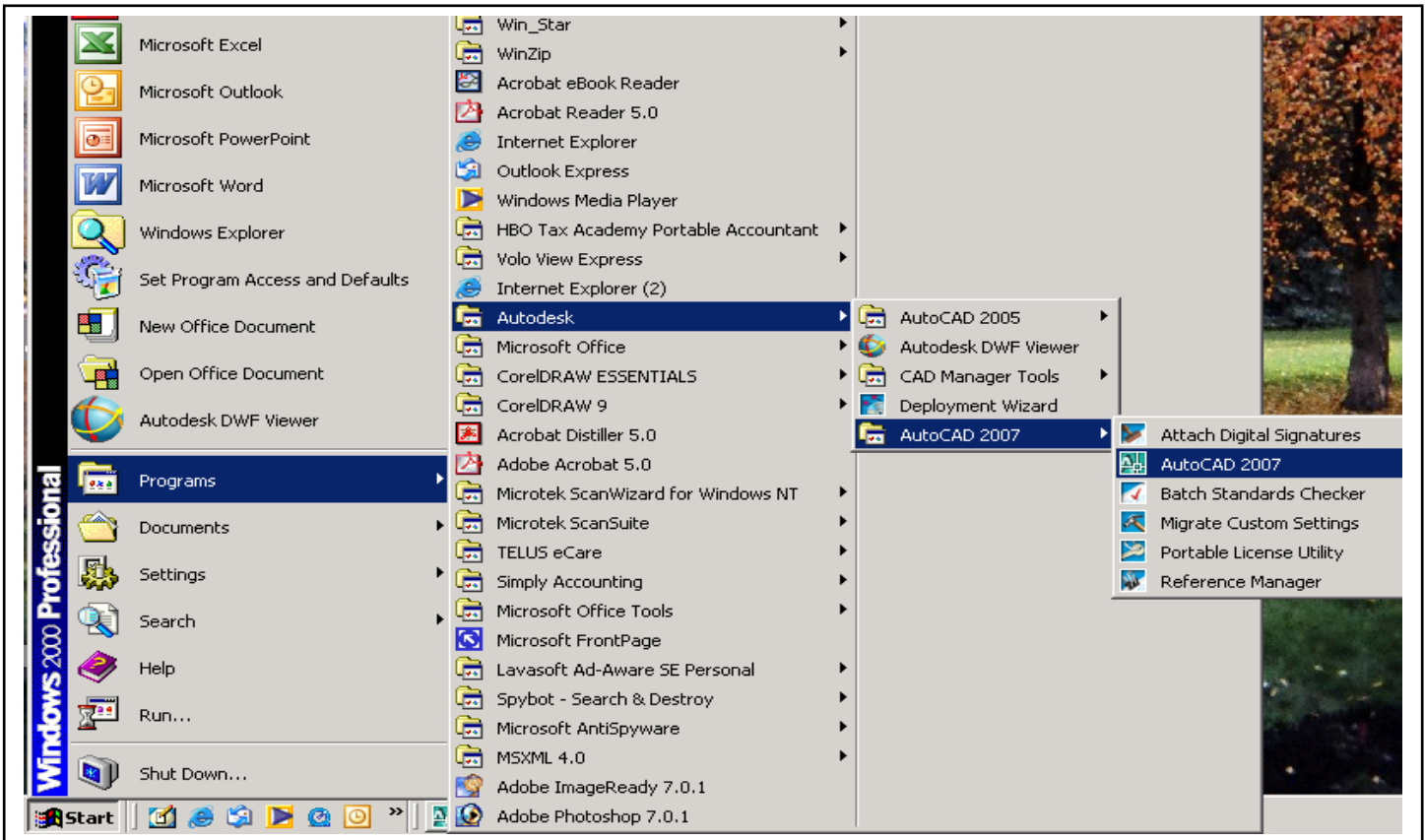
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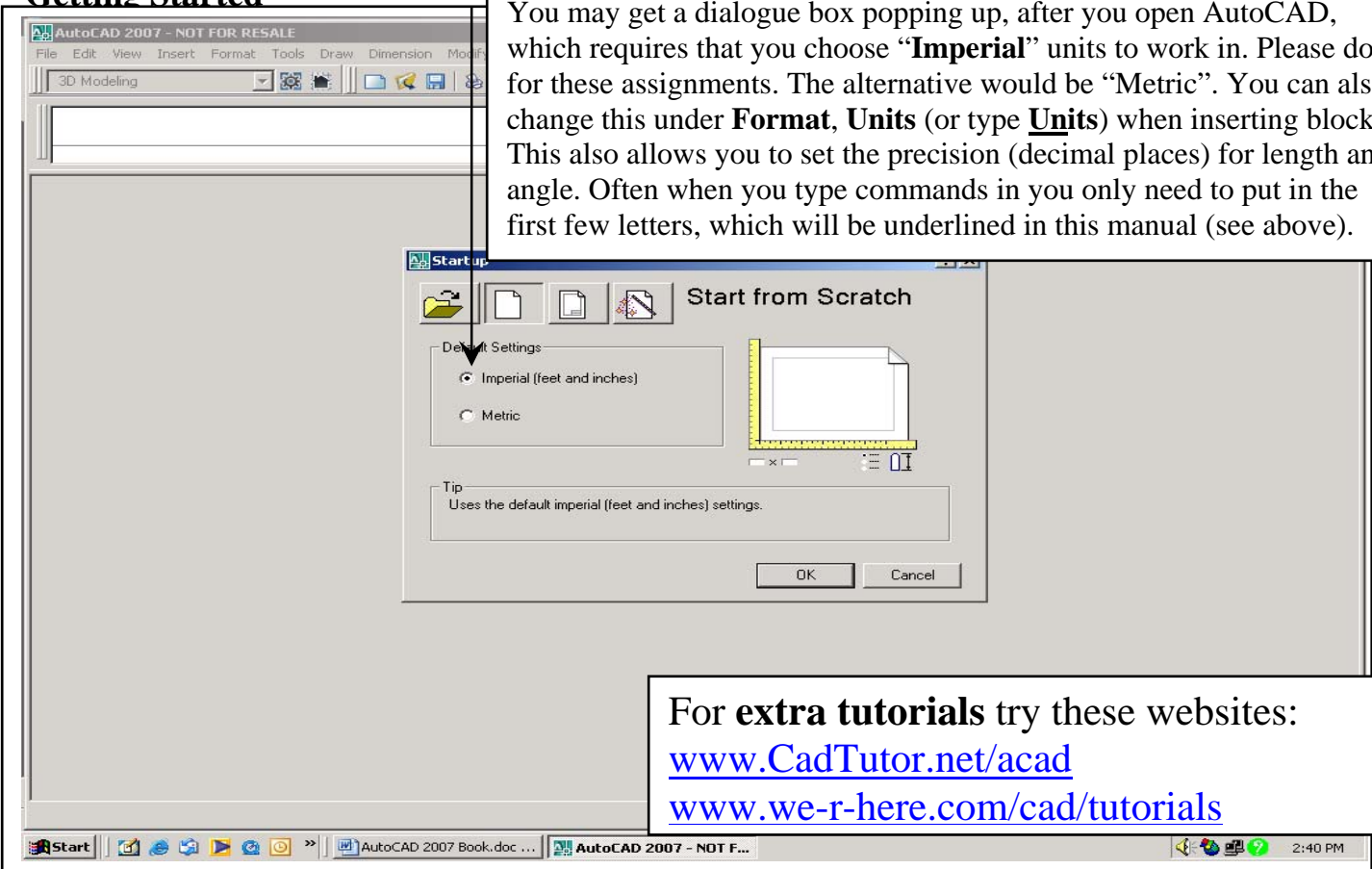
## **AutoCad Training Manual**

The topics covered in this text complete the course objectives for a 51 hour course. Students will work through the exercises in approximately 12 hours. This leaves 39 hours for students to practice on drawings of ever increasing complexity. You will find that students complete these additional drawings from two to five times sooner, because of the minimalist approach taken in this manual..

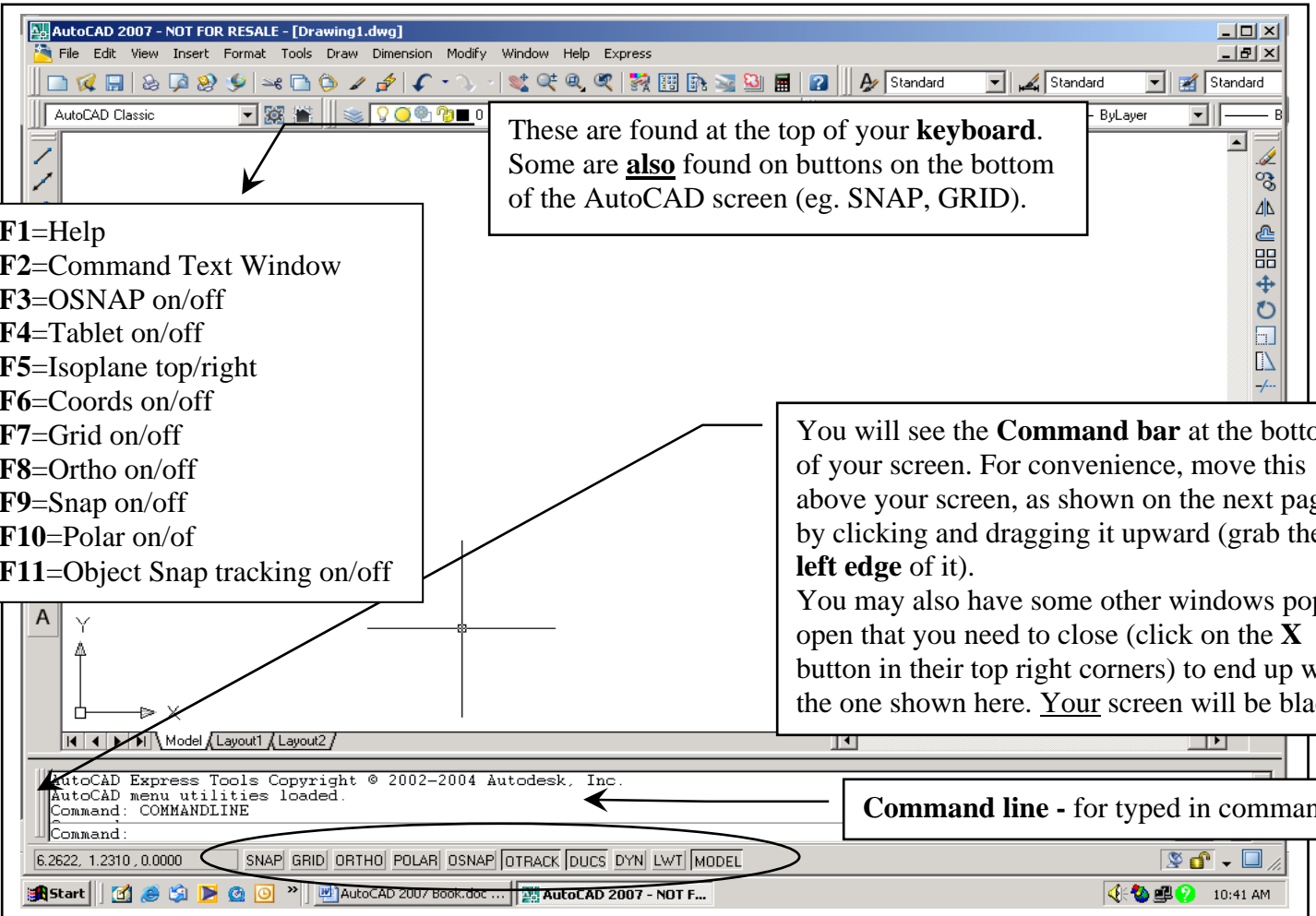


# Getting Started

You may get a dialogue box popping up, after you open AutoCAD, which requires that you choose “**Imperial**” units to work in. Please do so for these assignments. The alternative would be “Metric”. You can also change this under **Format, Units** (or type Units) when inserting blocks. This also allows you to set the precision (decimal places) for length and angle. Often when you type commands in you only need to put in the first few letters, which will be underlined in this manual (see above).



For extra tutorials try these websites:  
[www.CadTutor.net/acad](http://www.CadTutor.net/acad)  
[www.we-r-here.com/cad/tutorials](http://www.we-r-here.com/cad/tutorials)

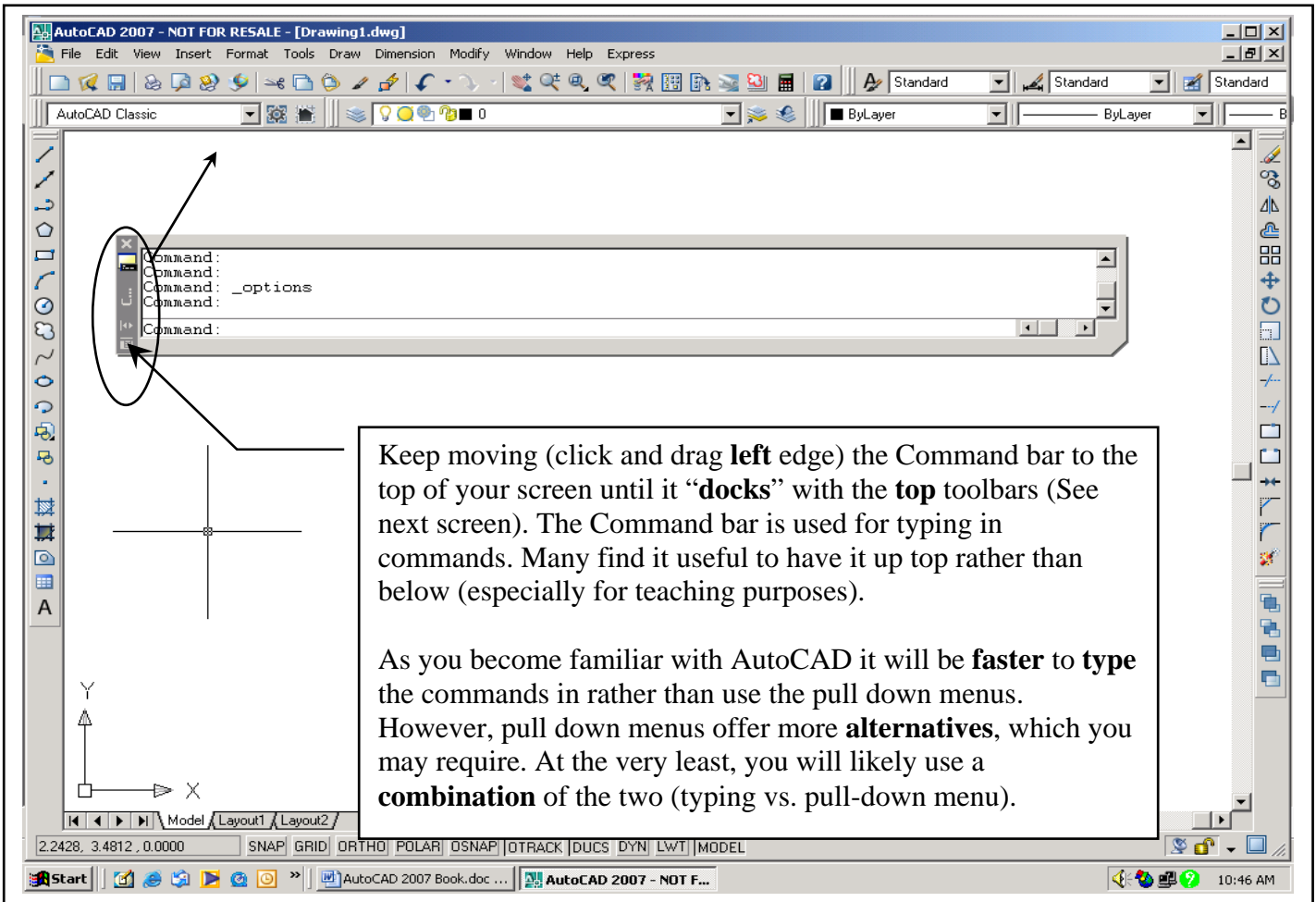


These are found at the top of your **keyboard**. Some are also found on buttons on the bottom of the AutoCAD screen (eg. SNAP, GRID).

- F1=Help
- F2=Command Text Window
- F3=OSNAP on/off
- F4=Tablet on/off
- F5=Isoplane top/right
- F6=Coords on/off
- F7=Grid on/off
- F8=Ortho on/off
- F9=Snap on/off
- F10=Polar on/of
- F11=Object Snap tracking on/off

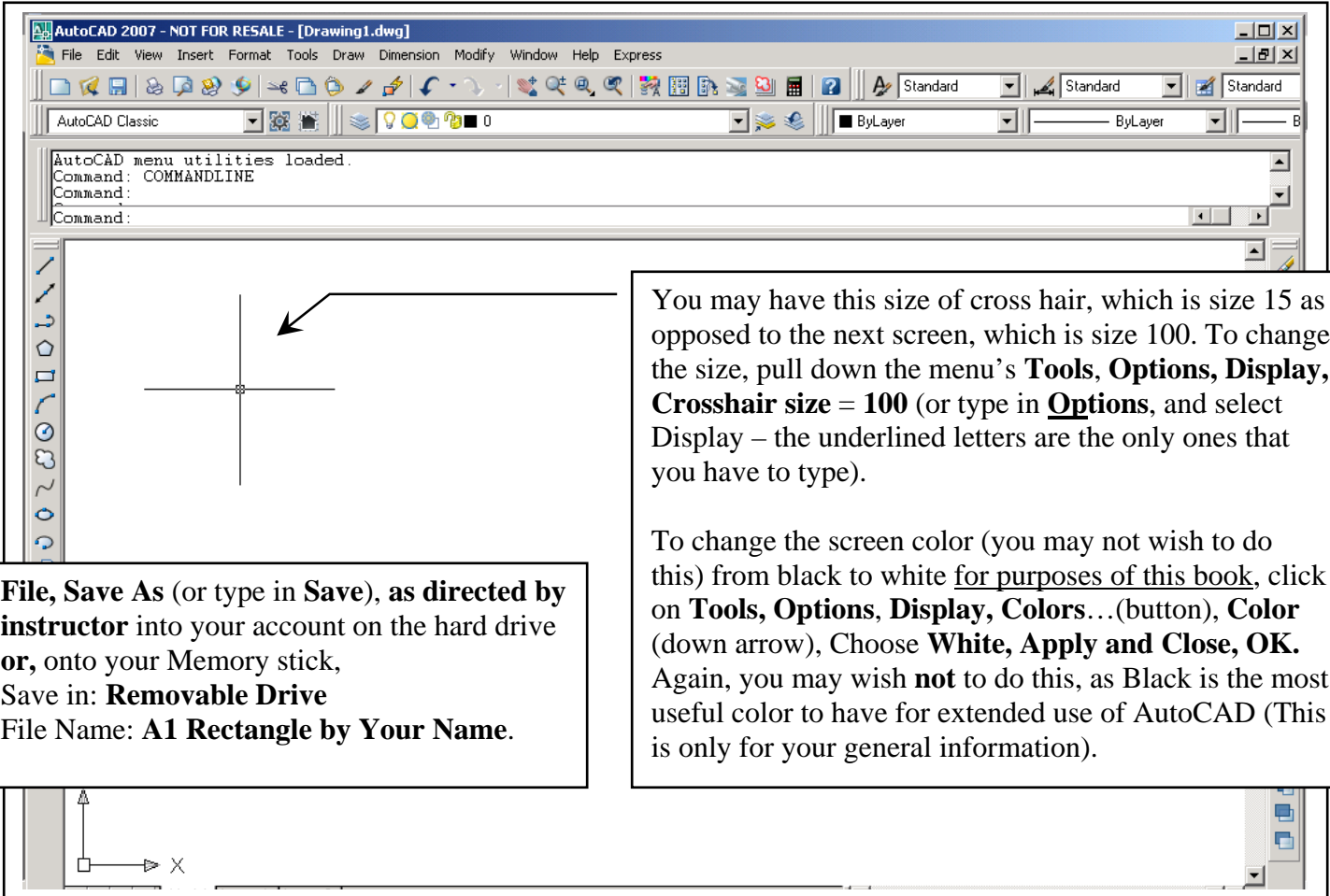
You will see the **Command bar** at the bottom of your screen. For convenience, move this above your screen, as shown on the next page, by clicking and dragging it upward (grab the **left edge** of it). You may also have some other windows pop open that you need to close (click on the **X** button in their top right corners) to end up with the one shown here. Your screen will be black.

**Command line** - for typed in commands.



Keep moving (click and drag **left** edge) the Command bar to the top of your screen until it “**docks**” with the **top** toolbars (See next screen). The Command bar is used for typing in commands. Many find it useful to have it up top rather than below (especially for teaching purposes).

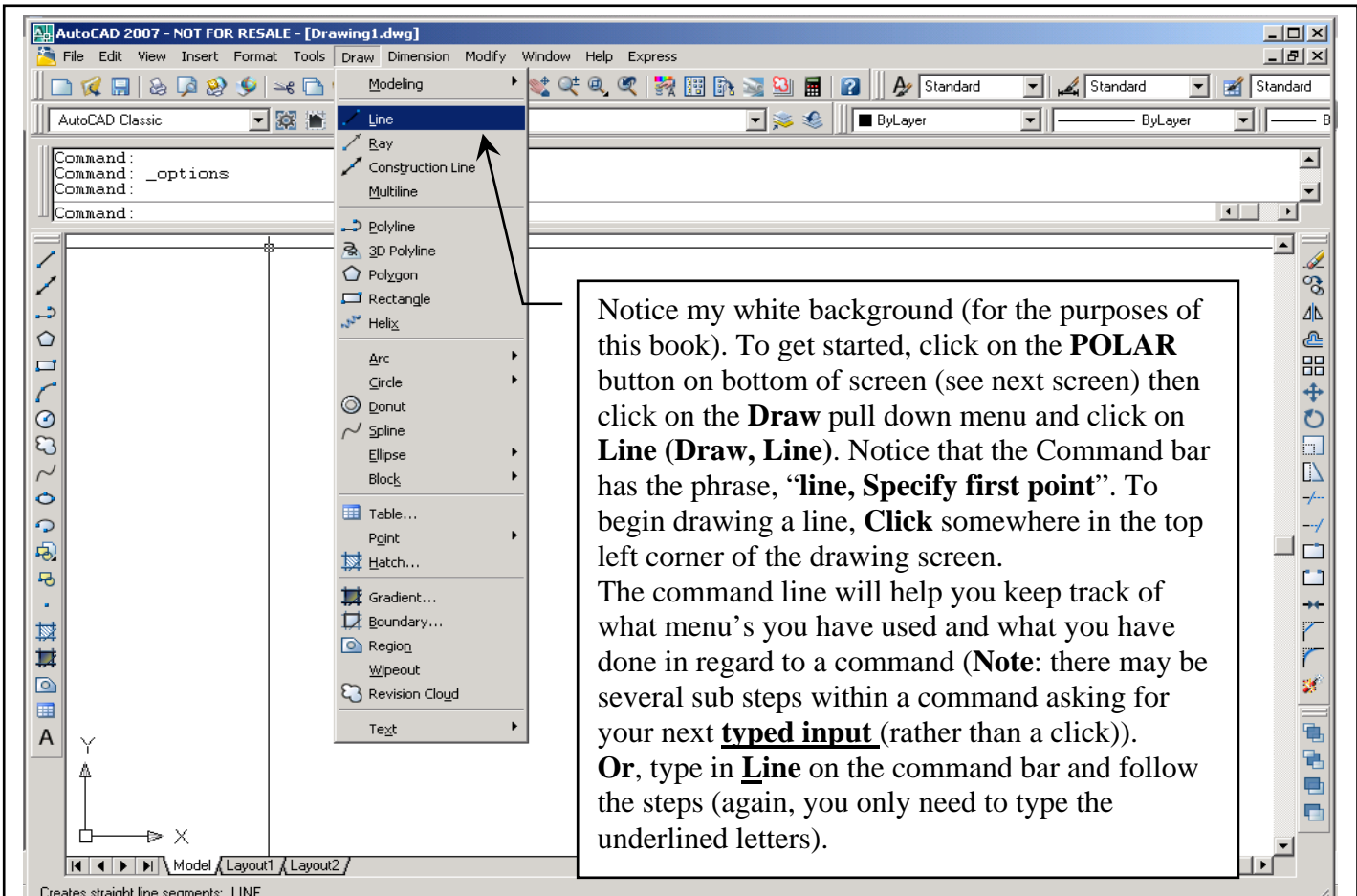
As you become familiar with AutoCAD it will be **faster** to **type** the commands in rather than use the pull down menus. However, pull down menus offer more **alternatives**, which you may require. At the very least, you will likely use a **combination** of the two (typing vs. pull-down menu).



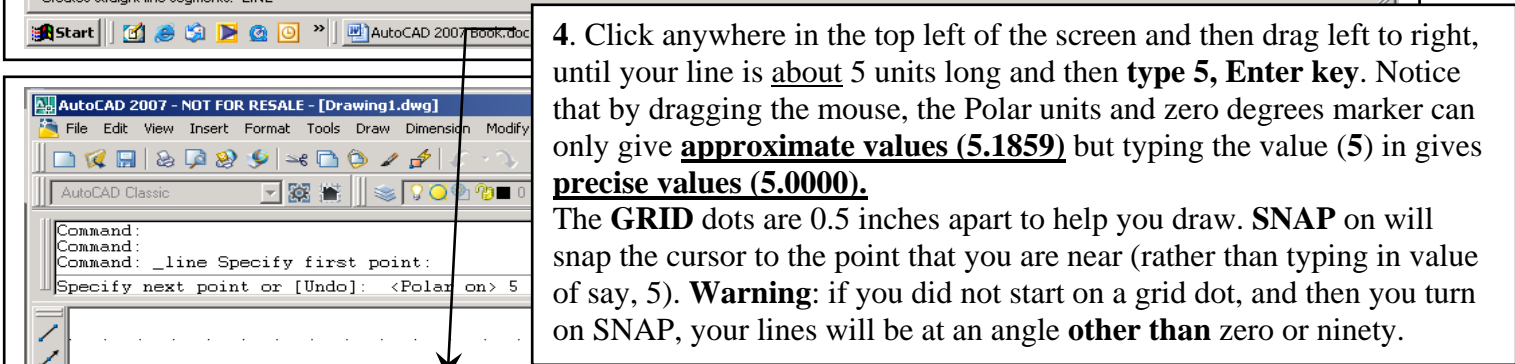
You may have this size of cross hair, which is size 15 as opposed to the next screen, which is size 100. To change the size, pull down the menu’s **T**ools, **O**ptions, **D**isplay, **C**rosshair size = **100** (or type in **O**ptions, and select Display – the underlined letters are the only ones that you have to type).

To change the screen color (you may not wish to do this) from black to white for purposes of this book, click on **T**ools, **O**ptions, **D**isplay, **C**olors... (button), **C**olor (down arrow), Choose **W**hite, **A**pply and **C**lose, **O**K. Again, you may wish **not** to do this, as Black is the most useful color to have for extended use of AutoCAD (This is only for your general information).

**File, Save As** (or type in **Save**), as directed by instructor into your account on the hard drive or, onto your Memory stick, Save in: **Removable Drive** File Name: **A1 Rectangle by Your Name.**



Notice my white background (for the purposes of this book). To get started, click on the **POLAR** button on bottom of screen (see next screen) then click on the **Draw** pull down menu and click on **Line (Draw, Line)**. Notice that the Command bar has the phrase, “**line, Specify first point**”. To begin drawing a line, **Click** somewhere in the top left corner of the drawing screen. The command line will help you keep track of what menu’s you have used and what you have done in regard to a command (**Note**: there may be several sub steps within a command asking for your next **typed input** (rather than a click)). **Or**, type in **Line** on the command bar and follow the steps (again, you only need to type the underlined letters).

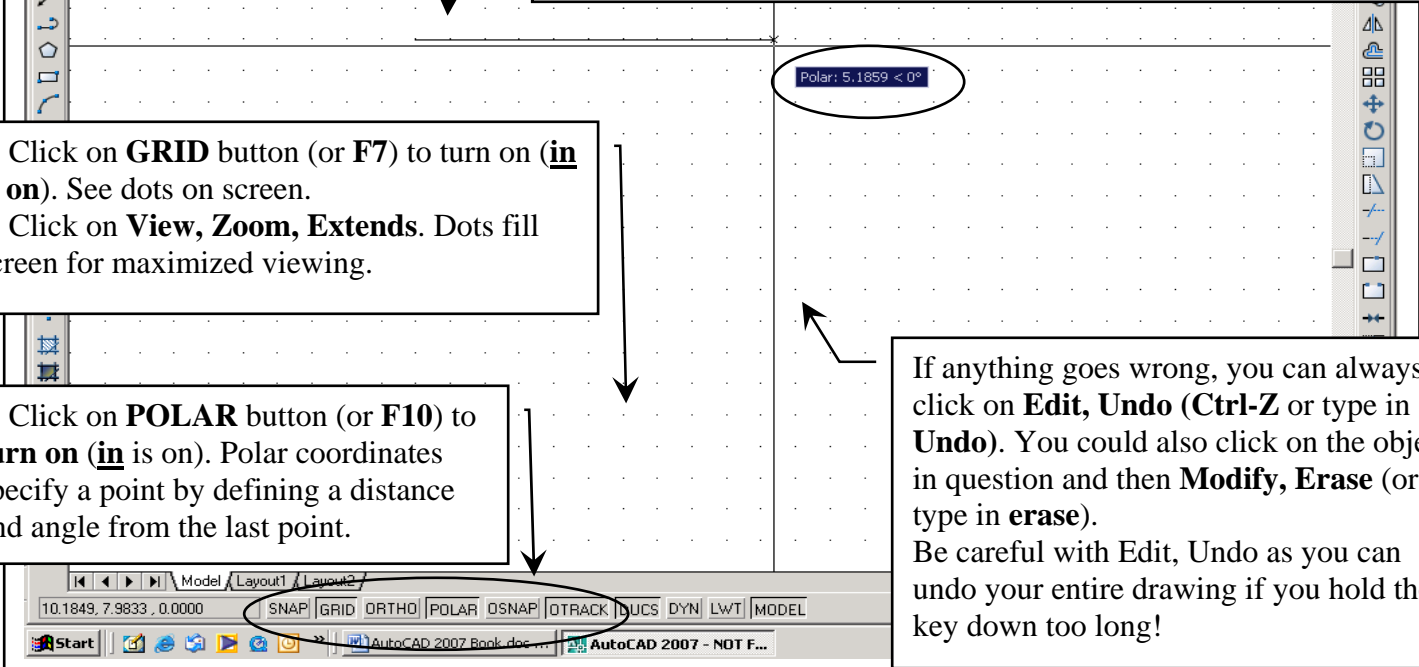


4. Click anywhere in the top left of the screen and then drag left to right, until your line is about 5 units long and then **type 5, Enter key**. Notice that by dragging the mouse, the Polar units and zero degrees marker can only give **approximate values (5.1859)** but typing the value (**5**) in gives **precise values (5.0000)**. The **GRID** dots are 0.5 inches apart to help you draw. **SNAP** on will snap the cursor to the point that you are near (rather than typing in value of say, 5). **Warning**: if you did not start on a grid dot, and then you turn on **SNAP**, your lines will be at an angle **other than** zero or ninety.

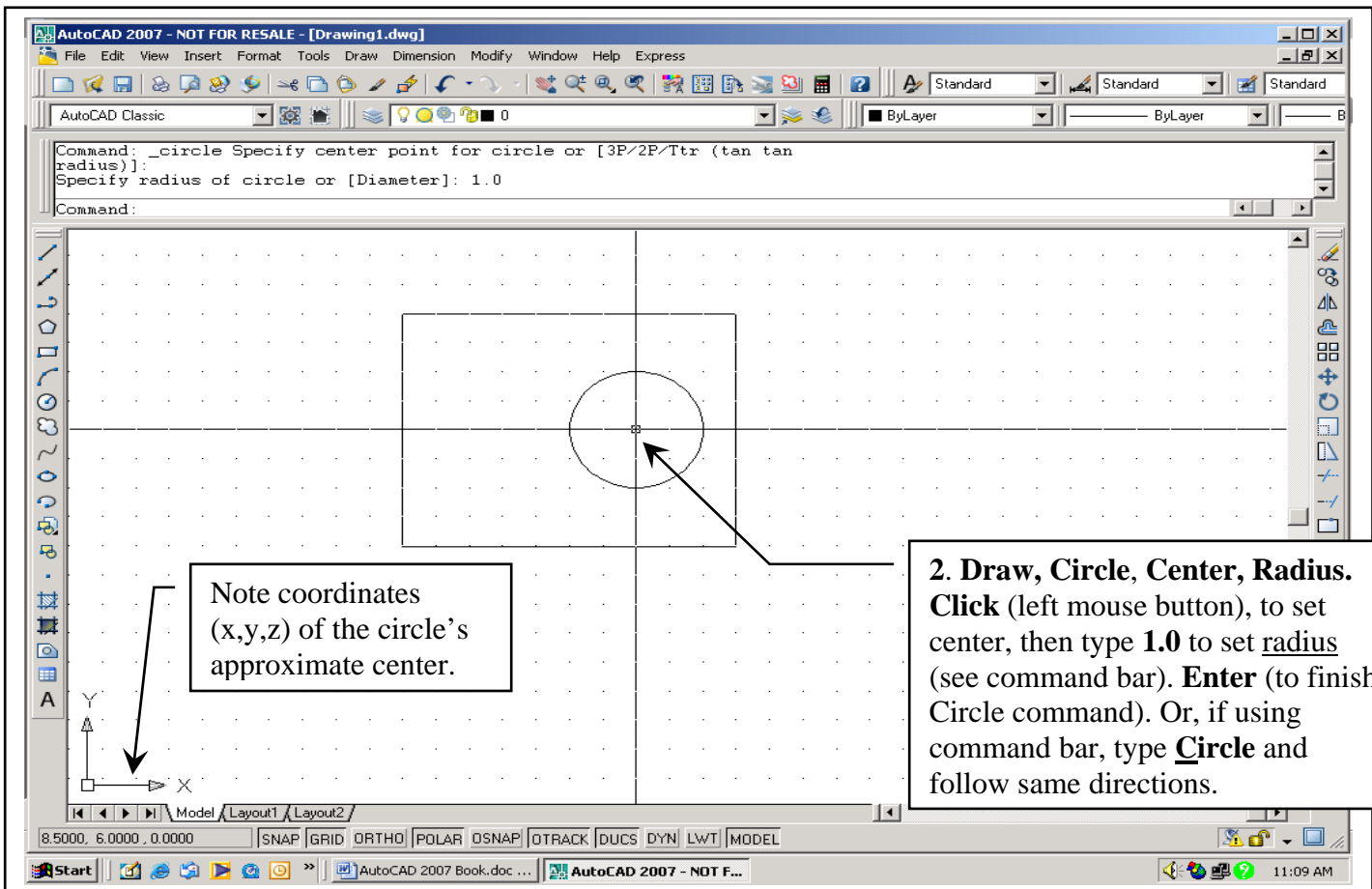
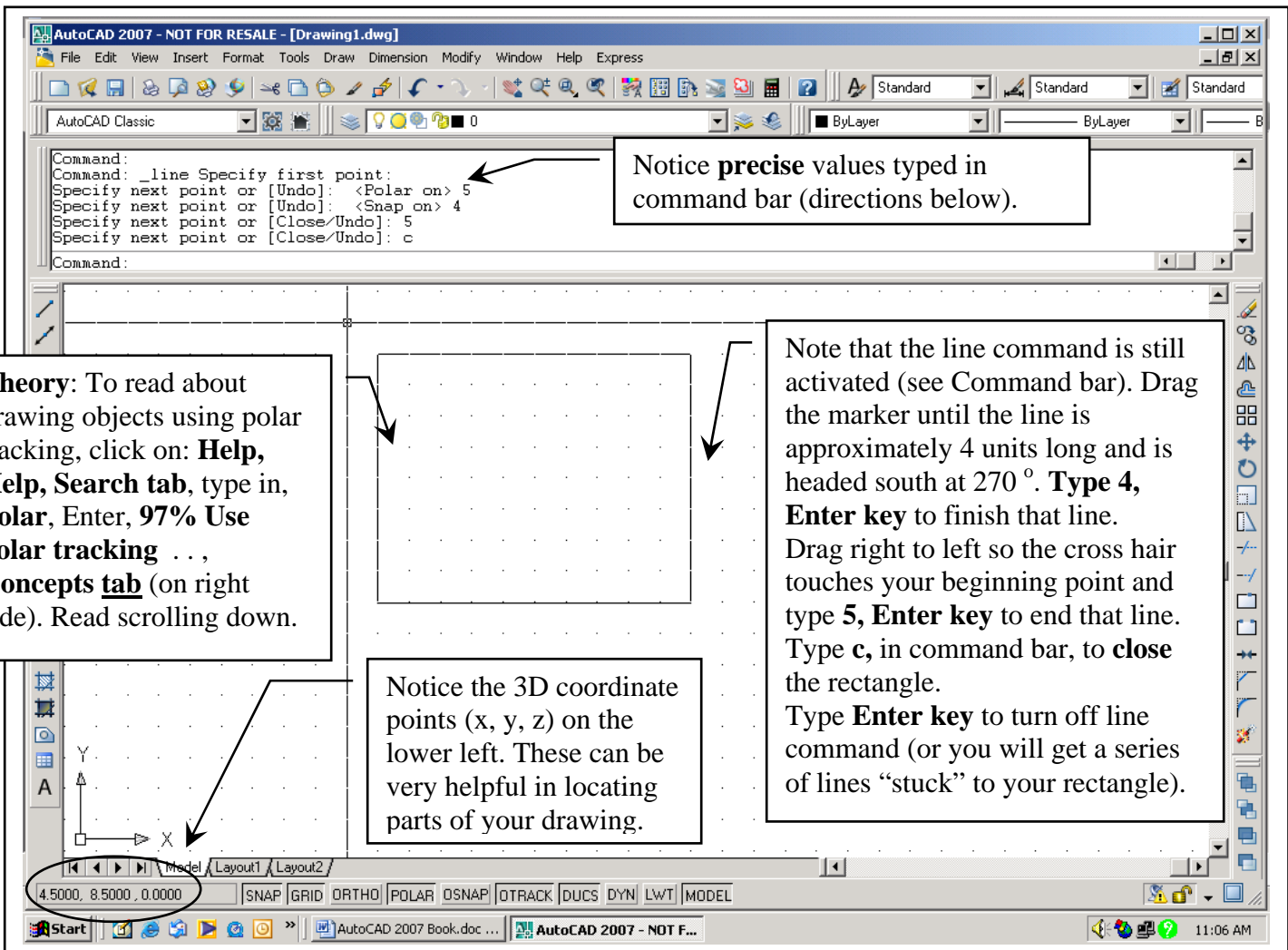
1. Click on **GRID** button (or **F7**) to turn on (**in** is on). See dots on screen.

2. Click on **View, Zoom, Extends**. Dots fill screen for maximized viewing.

3. Click on **POLAR** button (or **F10**) to **turn on (in** is on). Polar coordinates specify a point by defining a distance and angle from the last point.



If anything goes wrong, you can always click on **Edit, Undo (Ctrl-Z** or type in **Undo**). You could also click on the object in question and then **Modify, Erase** (or type in **erase**). Be careful with **Edit, Undo** as you can undo your entire drawing if you hold the key down too long!



radius}):  
Specify radius of circle or [Diameter]: 1.0  
Command: Specify opposite corner:  
Command:

To select this object (rectangle), click and drag the crosshair from outside the bottom right corner to the outside top left corner. Click to finish the selection process. You will then get “grips” on the object as shown. This is called a **crossing window**. Anything that is crossed or included will be selected.  
(HINT: If you click and drag a grip, the line will **extend** or **move**- we do not want to do this here though).

radius}):  
Specify radius of circle or  
Command: Specify opposite c  
Command:

To get hatching inside of the selected object (rectangle), click on **Draw, Hatch**. Or, type **Hatch** on Command line and follow directions on next page.

**Theory:** To read about hatching, click on: Help, **Help, Index tab**, type in Hatch, click on **about, Display button, Concepts tab** (on right side). Read scrolling down. Click on Procedures and read (also see next page).

Fills an enclosed area or selected objects with a hatch pattern: BHATCH