






Create a new AutoCAD Engineering drawing. Save As “lastname – intro” Below is a list of commands will you will use in this intro.

| Command | Keystroke | Icon | Location | Result |
|---------|-------------------|---|---|---|
| Line | Line / L |  | <u>H</u> ome > <u>L</u> ine | Draw a straight line segment from one point to the next |
| Circle | Circle / C |  | <u>H</u> ome> <u>C</u> ircle > Center, <u>R</u> adius | Draws a circle based on a center point and radius. |
| Erase | Erase / E |  | <u>M</u> odify > <u>E</u> rase | Erases an object. |
| Arc | Arc / E |  | <u>D</u> raw > <u>A</u> rc > Center, Start, End | Draws an arc based on a center point and 2 endpoints |
| Undo | U / CTRL+Z |  | <u>Q</u> uick Access Toolbar> <u>U</u> ndo | Undoes the last command. |

Start the **LINE** command (as explained in the table above) and draw a line from **1,2** to **3,2** to **3,4** to **1,4** Press enter after each point. For the last line, you can either type in **1,2** or **C** to close the line back to the first point you entered. You have just drawn a 2" square using absolute co-ordinates. Your command history (F2 key) should look like this:

```
Specify next point or [Close/Undo]: <ENTER>
Command: L LINE Specify first point: 1,2
Specify next point or [Undo]: 3,2
Specify next point or [Undo]: 3,4
Specify next point or [Close/Undo]: 1,4
Specify next point or [Close/Undo]: 1,2
Specify next point or [Close/Undo]: <ENTER>
```

If you make a mistake, you can use the **undo** icon,  press **U** or press **CTRL+Z**.

Next draw a similar box using relative co-ordinates. Start the **LINE** command and begin at point **4.5,2**. From there draw a line two units to the right by typing **@2,0** (this means 2 units in the X direction, 0 units in the Y direction based on the last point you entered). Next type **@0,2** then **@-2,0** then **@0,-2** to finish the box.

Draw a third box using polar co-ordinate input. Start the **LINE** command and begin at point **8,2** then enter. Type **@1<45** to draw the first line. Next enter **@1<135** then

@1<225 then @1<315 (or C to close). What you have just done is drawn a line 1 unit long at 45°, then another at 135° and so on. Do the angles you entered make sense to you? If not, review it.

Start the **CIRCLE** command and add a circle that has a center point at 7,6 with a radius of .75 (Watch the command line for instructions).

The last thing to draw is the arc (curved line) that you see in the bottom left square. Start the **ARC** command and select the Center option by pressing the "C" key.

Now you can enter the center point which will be 1,2. Then you'll be prompted for the start point, enter 3.2 and finally the end point 1,4.

Command: A <enter> ARC

Specify start point of arc or [Center]: C

Specify center point of arc: 1,2

Specify start point of arc: 3,2

Specify end point of arc or [Angle/chord Length]: 1,4

There are many different ways to draw an arc. Try another method in the other square. Also, you'll learn later that you can draw a circle and then trim it to leave an arc.

To finish the drawing, try putting a 10"x7" border around the page starting at 0,0 using the any of the methods shown above (relative, absolute or polar).