Chapter 8
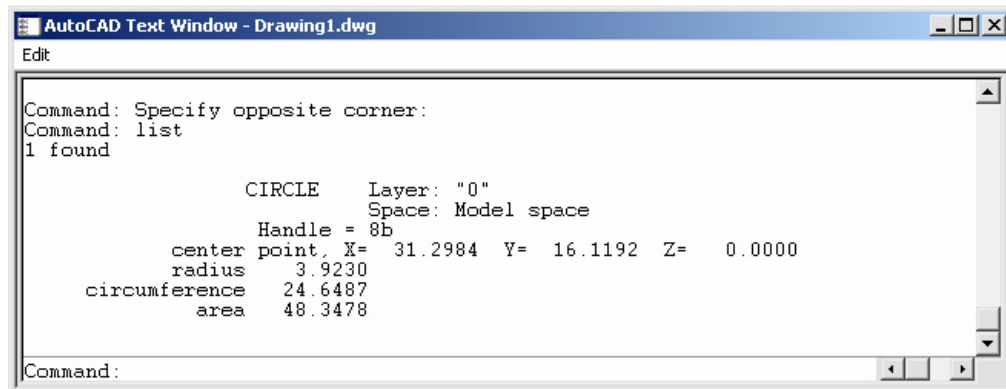# Setting Up a Drawing

List Command 8.1

1. **Choose**   Tools, Inquiry, List.

      or

2. **Click**   the List icon from the Inquiry Toolbar.

      or

3. **Type**   LIST at the command prompt.

      Command: **LIST or LI**

4. **Pick**   The object or objects to list.

      Select objects: (**select**)

5. **Press**   ENTER when you are finished choosing objects:

```
AutoCAD Text Window - Drawing1.dwg                          _ □ ×
Edit

Command: Specify opposite corner:
Command: list
1 found

                    CIRCLE     Layer: "0"
                               Space: Model space
                 Handle = 8b
          center point, X=  31.2984  Y=  16.1192  Z=   0.0000
            radius     3.9230
       circumference   24.6487
              area   48.3478

Command:
```

Measuring Distances 8.2

1. **Choose**   Tools, Inquiry, Distance.

   or

2. **Click**   the Distance icon from the Inquiry Toolbar.

   or

3. **Type**   DIST at the command prompt

   Command: **DIST**

4. **Pick**   The first point to measure from

   First point: **pick point**

5. **Pick**   The second point to measure to

   Second point: **pick point**

   Distance Between Circle Centers
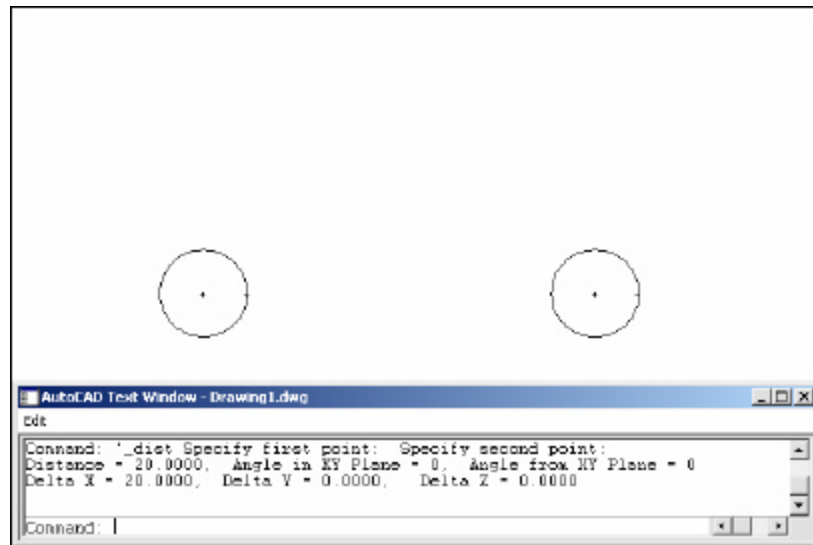
TIP:

Be sure to use Object Snaps with the MEASURE command.

Calculating Areas 8.3

1.	**Choose**	Tools, Inquiry, Area.

or

2.	**Click**	the Area icon.

or

3.	**Type**	AREA at the command prompt
		Command: **AREA**
4.	**Pick**	The first point for area calculation
		<First point>/Object/Add/Subtract: **pick**
5.	**Pick**	Next point: **pick**
6.	**Pick**	Next point: **pick**
7.	**Press**	ENTER when you are finished choosing points.
		Area of Rectangle
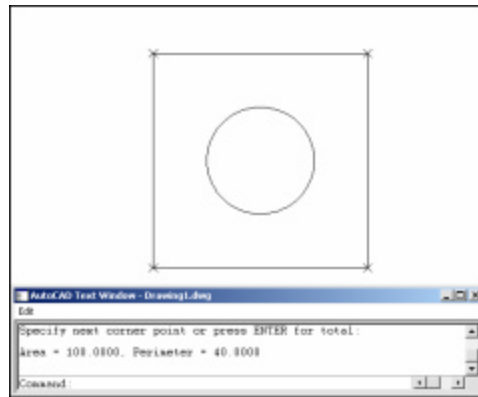
Object	Allows user to pick an object to calculate area (circle or polyline).
Add	Adds separate areas for a total area calculation
Subtract	Subtracts areas from each other.

TIPS:

Be sure to use Object Snaps with the MEASURE command

To subtract an area, you must first be in "add" mode to add the first area.

Quick Calc 8.4

Performs a full range of mathematical, scientific, and geometric calculations, creates and uses variables, and converts units of measurement.
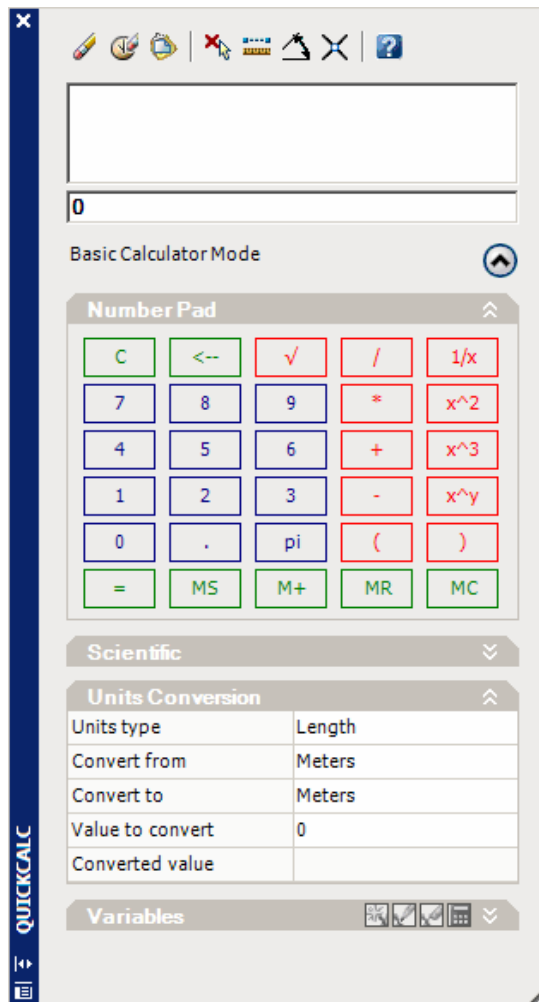
1.	**Choose**	Tools, Quick Calc

or

2.	**Click**	the quick calc icon from the standard toolbar.

or

3.	**Press**	CTRL + 8.

ID Command 8.5

1. **Choose**   Edit, Inquiry, Locate Point.

   or

2. **Click**   the Locate Point Icon from the Inquiry Toolbar.
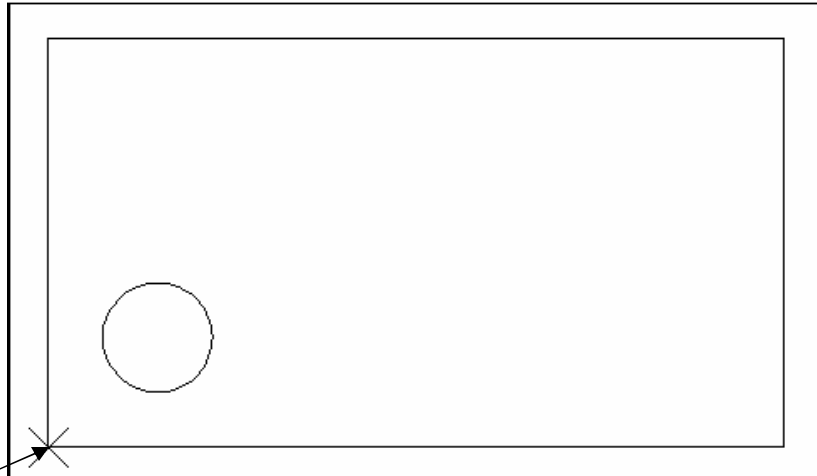
   or

3. **Type**   ID at the command prompt.

   Command: **ID**

4. **Pick**   A point to identity

   Point : **pick point**

Using ID at the corner
of the box rests the
"0,0" origin for relative
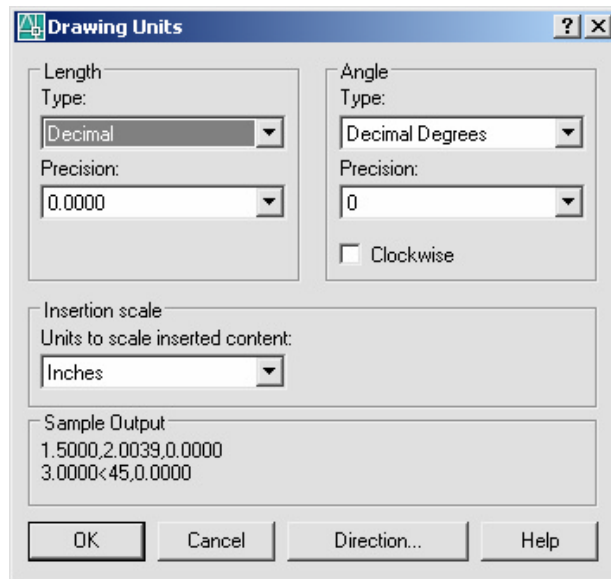coordinates

TIP:

AutoCAD returns the X,Y, and Z coordinates as well as making this the last point entered in the drawing (to move relative from)

Be sure to use Object Snaps with the ID command.

UNITS Command 8.6

    1.   **Choose**   Format, Units...

                      or

    2.   **Type**   DDUNITS at the command prompt.

                      Command: **DDUNITS or UN**

    3.   **Choose**   a units and angle setting.

   4.   **Choose**   a precision setting.

Drawing Limits 8.7

The drawing limits are two-dimensional points in the World Coordinate System that represent a lower-left limit and an upper-right limit.

The drawing limits also govern the portion of the drawing covered by the visible grid and determine the minimum area a ZOOM All displays.

1. **Choose** Format, Drawing Limits.

   or

2. **Type** LIMITS at the command prompt

   Command: **LIMITS**

3. **Type** One of the following options
   On/Off/Lower left corner <.000,0.000>: **0,0**

4. **Type** One of the following options for the
   upper right limit:

   Upper right corner <5.0000,2.0000>:**36,24**

Drawing with lower left limit of 0,0 and upper right limit of 36,24

```
                                          36,24



 0,0
```
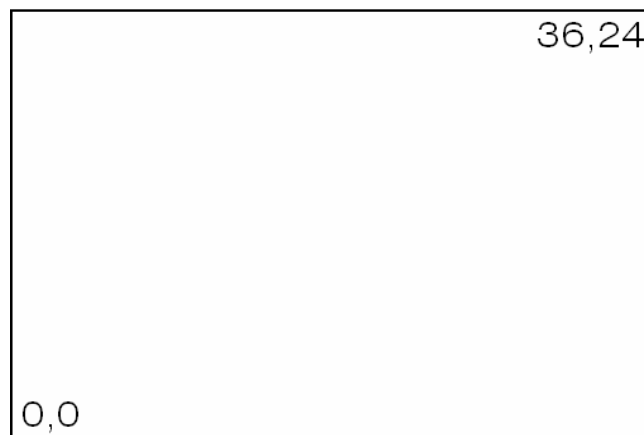
TIPS:

You can also pick points to define the limits.

The limcheck variable controls whether or not you can draw outside the limits that are set. A setting of 0 (off) indicates that you can draw outside the limits and a setting of 1(on) indicates that you cannot.

Plot Scales and Paper Sizes 8.8

The following is an example of setting up an AutoCAD drawing for a D size sheet of paper (36 x24) with a scale of 1/16=1').

|		
1.	**Size**	the object you're drawing.
2.	**Border Size**	36 x 24 plotted, 576' x 384' drawn.
		For some plotters, deduct a 1/2 margin on top, bottom, and left,and a 1 margin on the right.
3.	**Limits**	Lower left limit 0,0.
		Upper right limit 576', 384'.
4.	**Text Height**	for 1/8 notes, multiply by 192 which is the reciprocal of the plot scale.
		1/8 plotted, 24" drawn.
5.	**Hatch Scale**	for patterns other than architectural.
		Hatch Scale = 192
6.	**Dimension Scale**	Dimscale = 192
7.	**Ltscale**	Ltscale = 96

Determine your object size
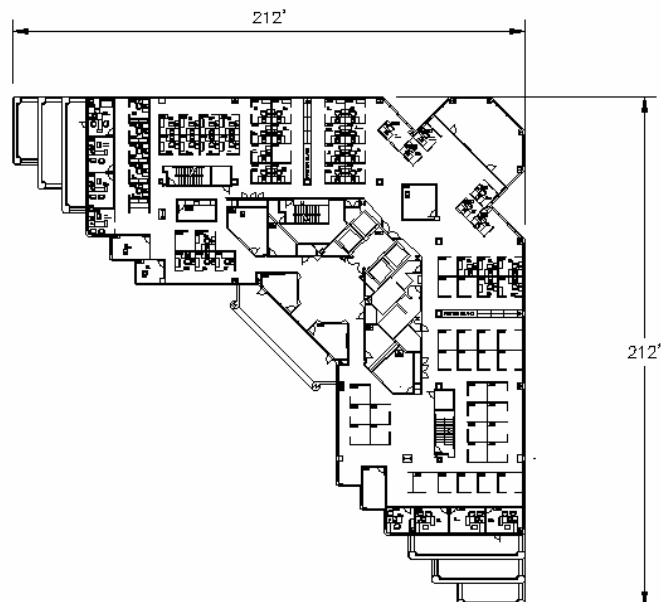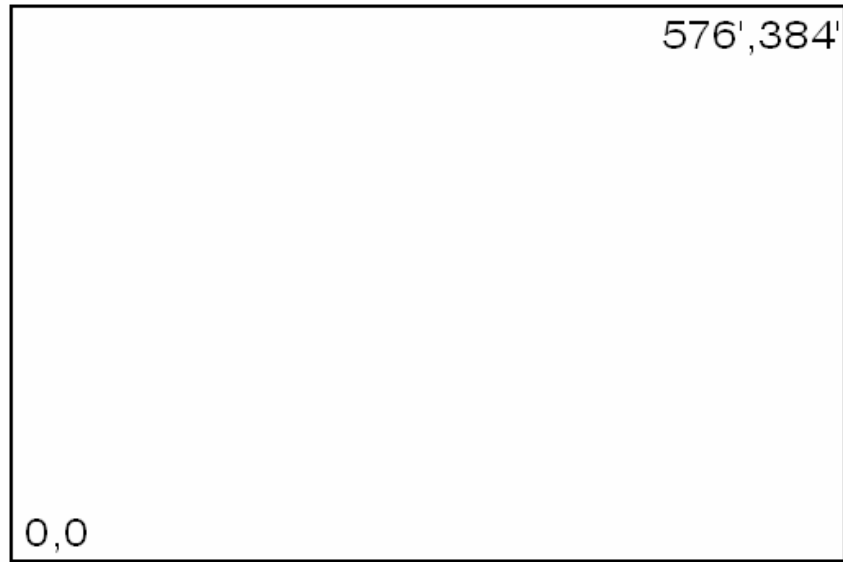
Decide Border (Paper) Size

24"

36"
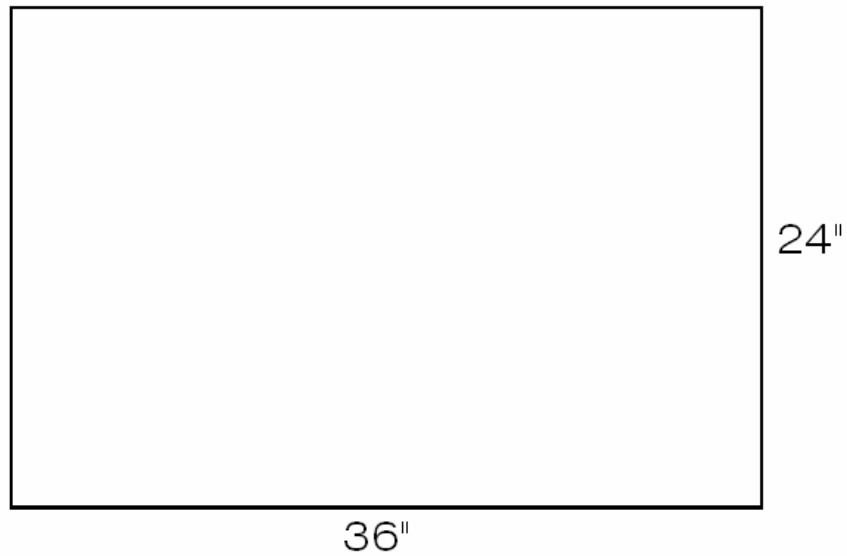
Decide the Scale Factor for Object which is at least 212', 212'. To do this, multiply the scale factor x paper size. (i.e.: 1/16"=1'-0' has scale factor 192)
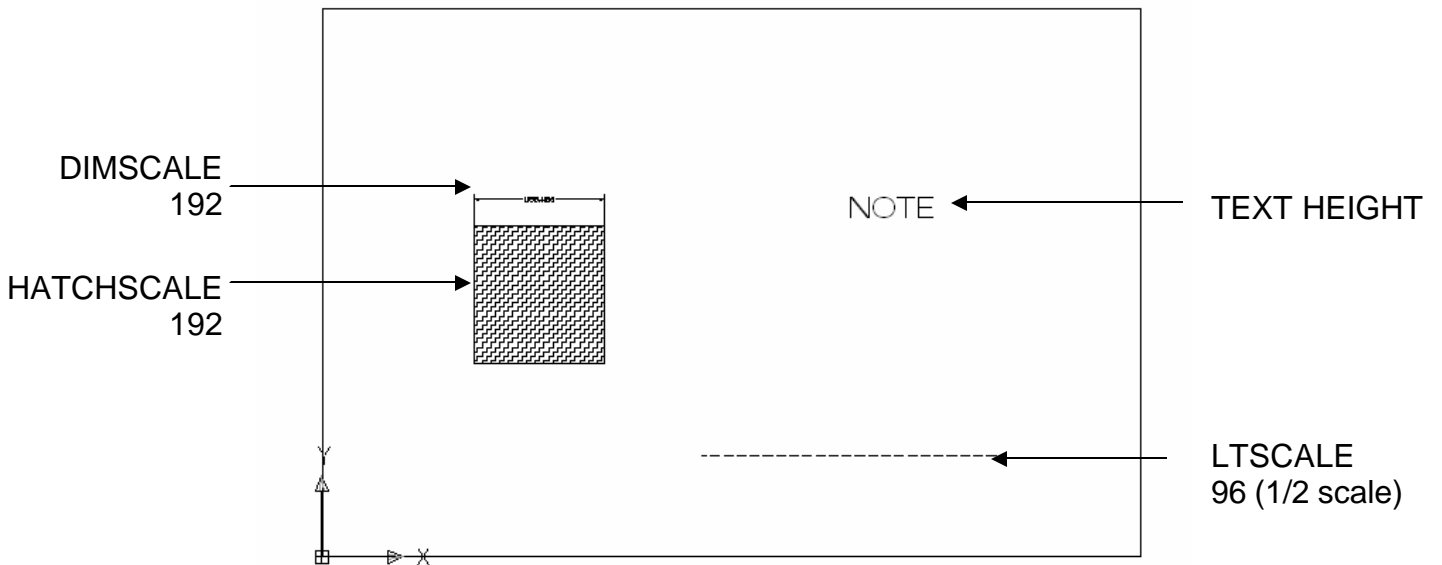
24x192/12=384'

36x192/12=576'
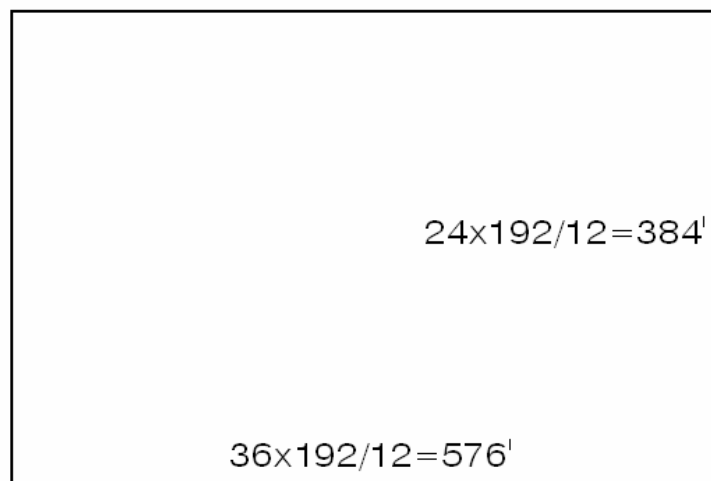
Set Drawing Limits

576',384'

0,0

Determine Dim Scale, Hatch Scale, Ltscale, and Text Height

DIMSCALE
192

HATCHSCALE
192

NOTE

TEXT HEIGHT

LTSCALE
96 (1/2 scale)

8.9 Scalelistedit Command

Controls the list of scales available for layout viewports, page layouts, and plotting.

1. **Choose** scalelistedit from the Format menu.

or

2. **Type** scalelistedit at the command prompt.