
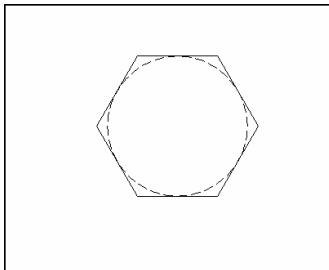

Chapter 16
More Draw Commands

AutoCAD 2D Tutorial

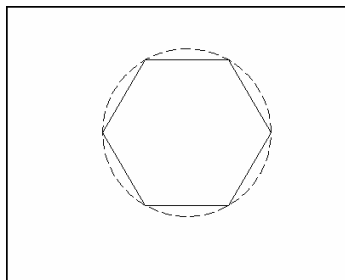
Polygon 16.1

1. **Choose** Draw, Polygon.
or
2. **Click** the Polygon icon. 
or
3. **Type** Polygon at the command prompt.
Command: **POLYGON**
4. **Type** The number of sides for the polygon (3-1024)
Number of sides <default>: **number**
5. **Pick** The center of the polygon. Edge/<Center of polygon>:
pick
or
6. **Type** **E** to define the polygon by two edges.
7. **Type** **I** or **C** to place the polygon inside or outside of an imaginary circle.
Inscribed in circle/Circumscribed about circle (I/C):

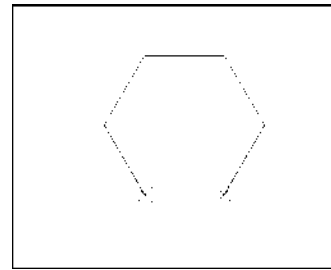
Polygon Inscribed in an imaginary circle



Polygon circumscribed around an imaginary circle




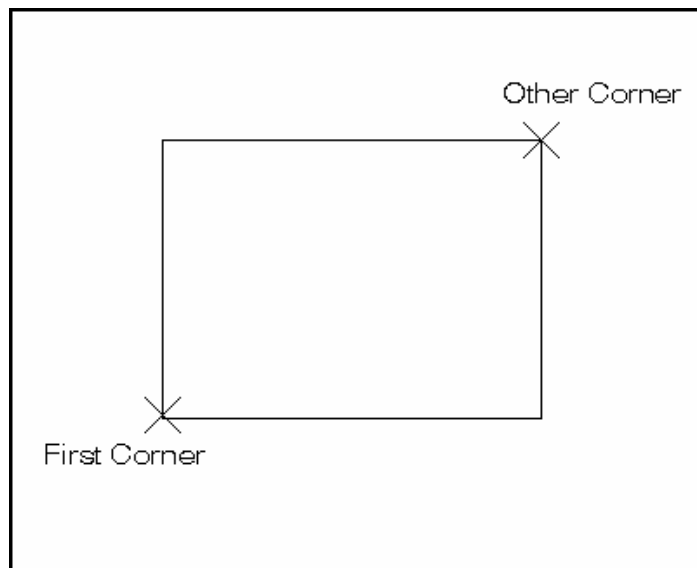
Polygon drawn with Edge



AutoCAD 2D Tutorial

Rectangle 16.2

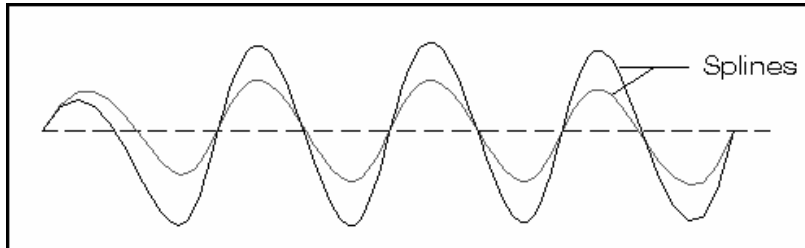
1. **Choose** Draw, Rectangle.
or
2. **Click** the Rectangle icon. 
- or**
3. **Type** Rectang at the command prompt Command:
RECTANG Chamfer/Elevation/Fillet/Thickness/Width/
<First corner>:
4. **Pick** first corner.
5. **Pick** other corner or type coordinates (i.e. @4,2).




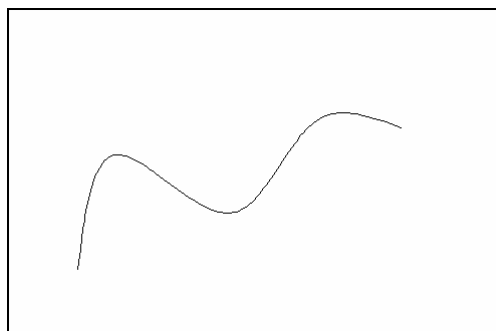
AutoCAD 2D Tutorial

Spline 16.3

The SPLINE command creates a particular type of spline known as a nonuniform rational B-spline (NURBS) curve. A NURBS curve produces a smooth curve between control points



1. **Choose** Draw, Spline.
or
2. **Click** the Spline icon. 
or
3. **Type** SPLINE at the command prompt
Command: **SPLINE**
4. **Pick** A start point for the spline
Object / <Enter first point>: (**pick point**)
5. **Pick** Points until you are done drawing splines
Enter point: (**pick points**)
6. **Press** Enter or close to complete the spline
7. **Pick** Starting tangent point for the spline
Enter start tangent (**pick point**)
8. **Pick** Ending tangent point for the spline
Enter end tangent: (**pick point**)



AutoCAD 2D Tutorial

Spline options:

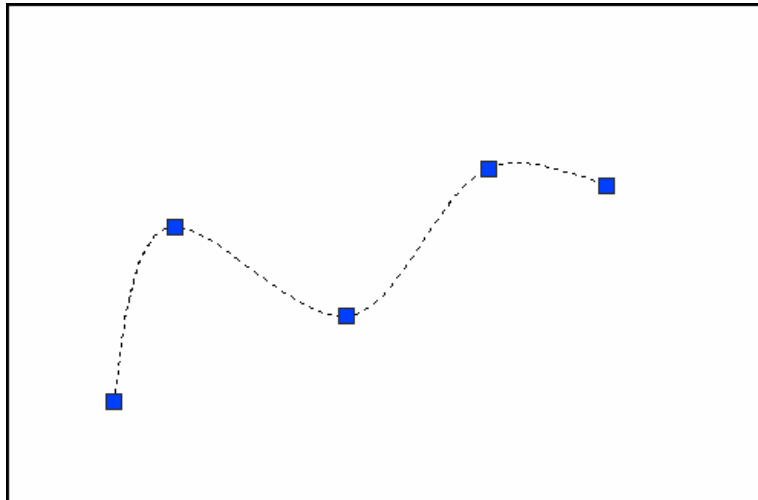
Object	Converts 2D or 3D spline-fit polylines to equivalent Splines
Points	Points that define the spline
Close	Closes a spline.
Fit Tolerance	Allows you to set a tolerance value that creates a smooth spline.

TIP: Refer to AutoCAD online help topic for more information on spline options.

AutoCAD 2D Tutorial

Editing Splines 16.4

1. **Choose** Modify, Object, Spline.

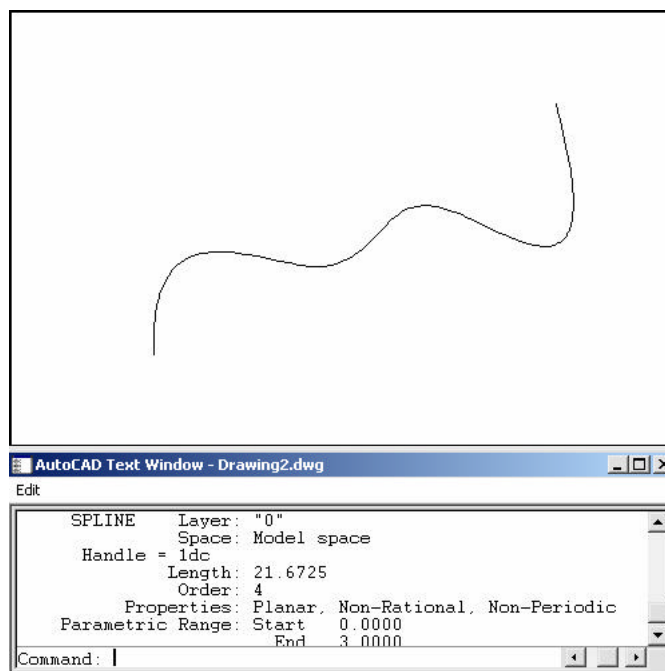


TIP: Drawings containing splines use less memory and disk space than those containing spline-fit polylines of similar shape.

AutoCAD 2D Tutorial

Covert PLINE to Spline 16.5

1. **Draw** a PLINE.
2. **Type** PEDIT to edit the polyline as a spline.
3. **Choose** Draw, Spline.
4. **Type** Object at the command prompt.
5. **Click** once on the polyline to turn it into a spline.



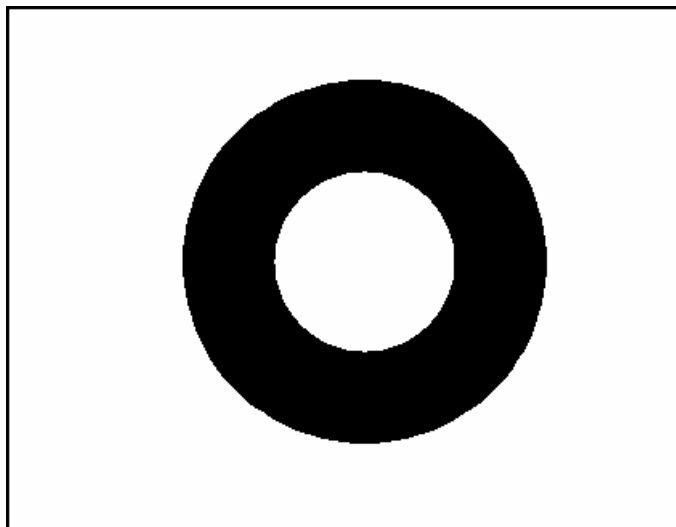
TIP: Use the LIST command to determine if an object is a PLINE or SPLINE.

AutoCAD 2D Tutorial

Donut 16.6

Donuts are filled rings or solid-filled circles that actually are closed polylines with width.


1. **Choose** Draw, Donut.
or
2. **Type** Donut at the command prompt.
Command: **DONUT**
3. **Type** A value for the inside diameter.
Inside diameter <last>: **.5**
4. **Type** A value for the outside diameter.
Outside diameter <last>: **1**
5. **Pick** A point for the center of the donut.
Center of doughnut: (**point**)



AutoCAD 2D Tutorial

Ellipse 16.7

Creates an ellipse or an elliptical arc.

1. **Choose** Draw, Ellipse.
or
2. **Choose** the Ellipse or Partial Ellipse icon. 
or
3. **Type** ELLIPSE at the command prompt
Command: **ELLIPSE**
4. **Type** One of the following options: Arc/Center/Isocircle /<Axis endpoint 1>:

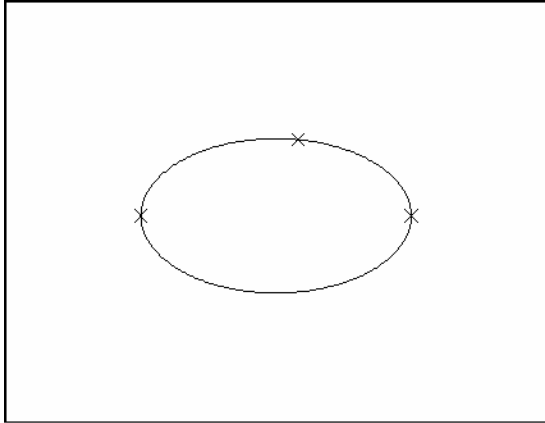
Ellipse options:

- Axis endpoint 1** Defines the first axis by two specified endpoints. The angle of the first axis determines the angle of the ellipse. The first axis can define either the major or the minor axis of the ellipse.
- Axis endpoint 2:** <Other axis distance> / Rotation: Specify a point or enter a distance
- Arc** Creates an elliptical arc. The angle of the first axis determines the angle of the elliptical arc. The first axis can define either the major or the minor axis of the elliptical arc.
- Center** Creates the ellipse by a specified center point.
- Isocircle** Creates an isometric circle in the current isometric drawing plane.
- Rotation** The major axis is now treated as the diameter of a circle that will be rotated a specified amount around the axis. You enter an angle between 0 and 89.4 degrees.

AutoCAD 2D Tutorial

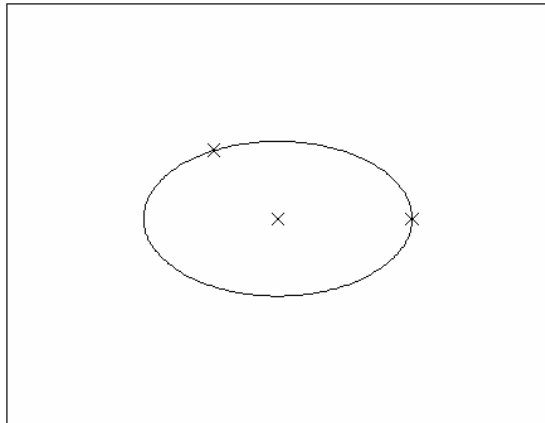
ELLIPSE,

Axis , Eccentricity (Axis Endpoint, Axis Endpoint, Other Axis Distance)



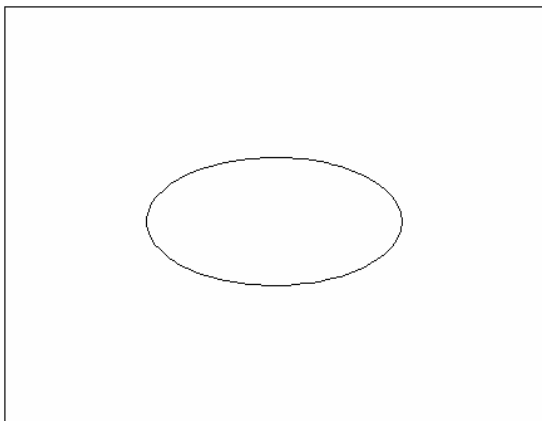
ELLIPSE,

Center, Axis, Axis



ELLIPSE,

Axis Endpoint, Axis Endpoint, Rotation=60



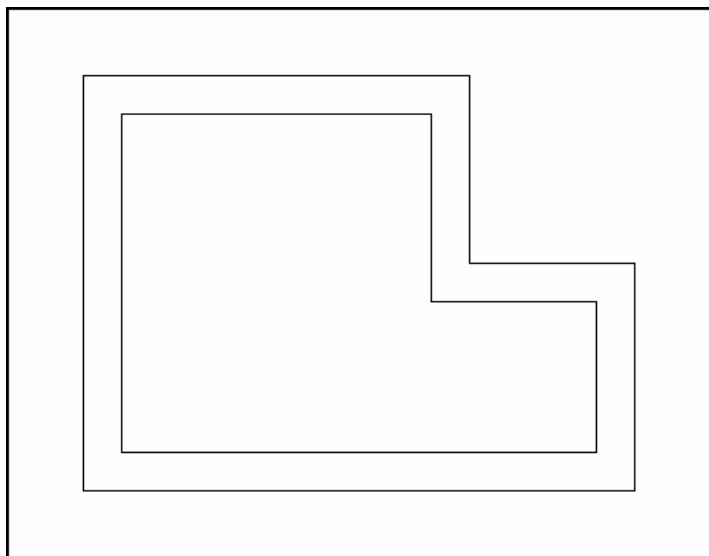
AutoCAD 2D Tutorial

Multilines 16.8

MLINE Command

Creates multiple parallel lines.

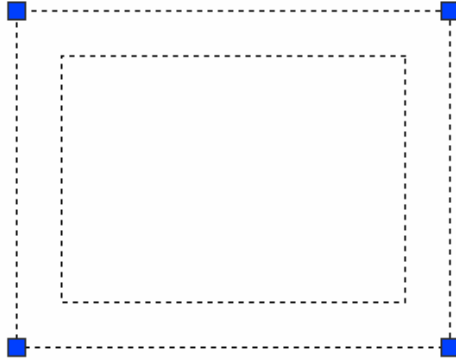
1. **Choose** Draw, Multiline.
or
2. **Type** MLINE at the command prompt.
Command: **MLINE**
3. **Pick** A point to start the multiline.
Justification/Scale/STyle/<From point>: pick point
4. **Pick** A second point to continue the multiline.
<To point>: **pick point**
5. **Pick** The next point to continue drawing multilines.
Undo/<To point>: pick point
6. **Press** ENTER to end the multiline
Close/Undo/<To point>: press enter or
7. **Type** C to close the multiline back to the first point.
Close/Undo/<To point>: **c**



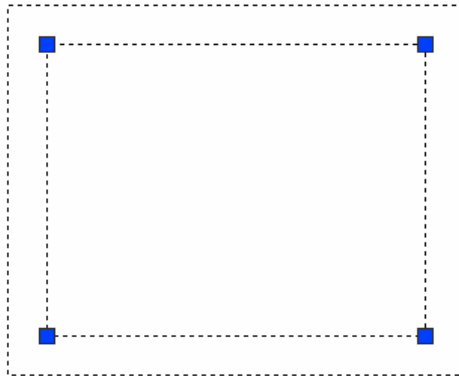
AutoCAD 2D Tutorial

Multiline Justifications

Top Justification



Bottom Justification



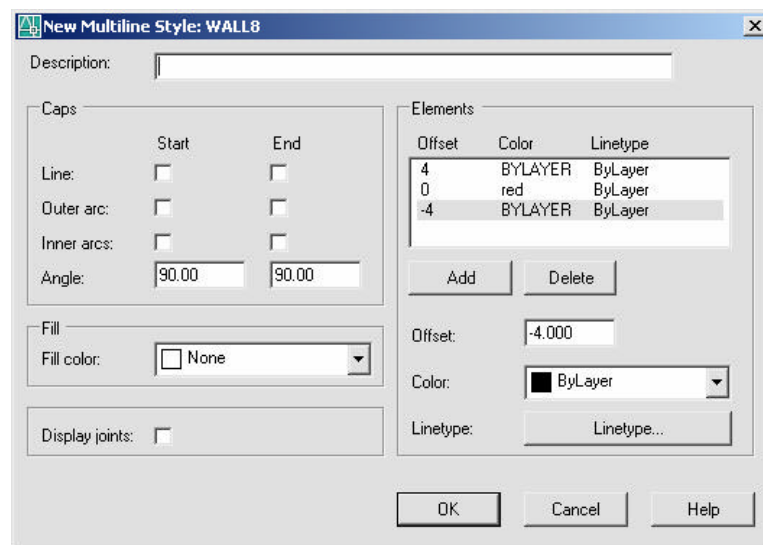
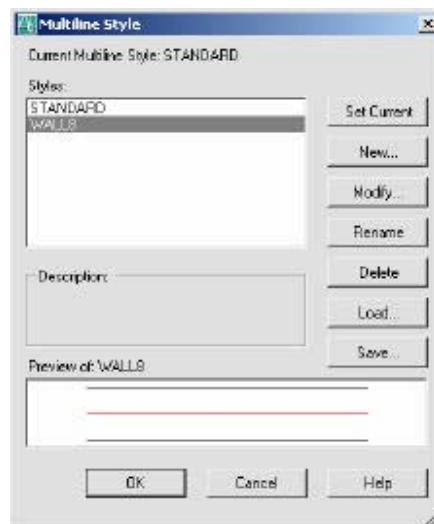
Zero Justification



AutoCAD 2D Tutorial

Multiline Styles 16.9

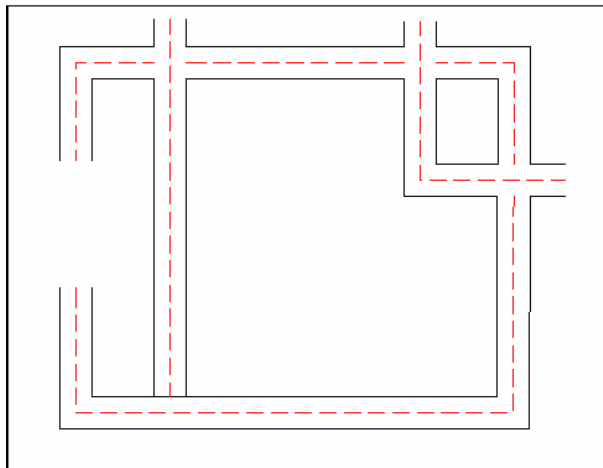
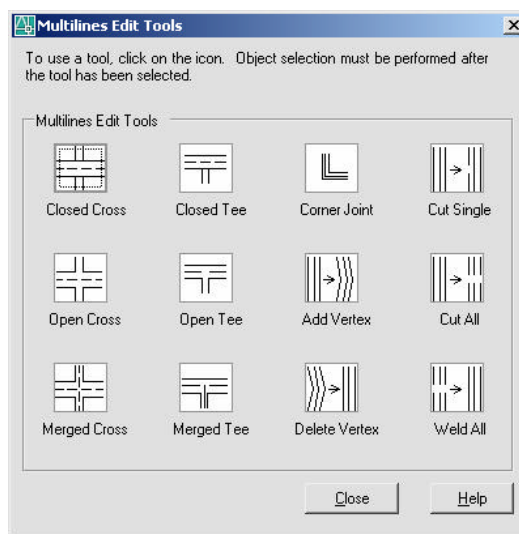
1. **Choose** Format, Multiline Style...
or
2. **Type** MLSTYLE at the command prompt.
Command: **MLSTYLE**
3. **Rename** The existing style called STANDARD to your newstyle.
4. **Choose** ElementProperties to change the appearance of the multilines.
5. **Choose** ADD to create the new multiline.



AutoCAD 2D Tutorial

Editing Multilines 16.10


1. **Choose** Modify, Multiline...
or
2. **Type** MLEDIT at the command prompt
Command: **MLEDIT**
3. **Choose** From one of the mledit options:



AutoCAD 2D Tutorial

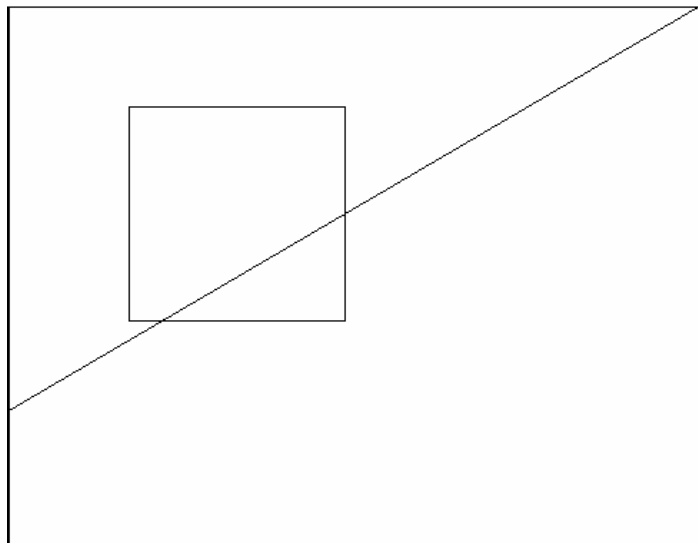
Construction Line 16.11

Creates an infinite line.

1. **Choose** Draw, ConstructionLine
or
2. **Choose** the XLINE icon. 
or
3. **Type** XLINE at the command prompt.
Command: **XLINE**
Specify a point or [Hor/Ver/Ang/Bisect/Offset]:

XLINE Options

- HOR** Creates a horizontal xline passing through a specified point.
- VER** Creates a vertical xline passing through a specified point.
- ANG** Creates an xline at a specified angle.
- BISECT** Creates an xline that passes through the selected angle vertex and bisects the angle between the first and second line.
- OFFSET** Creates an xline parallel to another object.



AutoCAD 2D Tutorial

Ray Command 16.12

Creates an infinite line in one direction.

1. **Choose** Draw, RAY
or
2. **Type** RAY at the command prompt.
Command: **RAY**
Specify a point : **(pick through point)**

