



## Drawing commands:

**To start the command Line:** لتفعيل امر رسم الخط

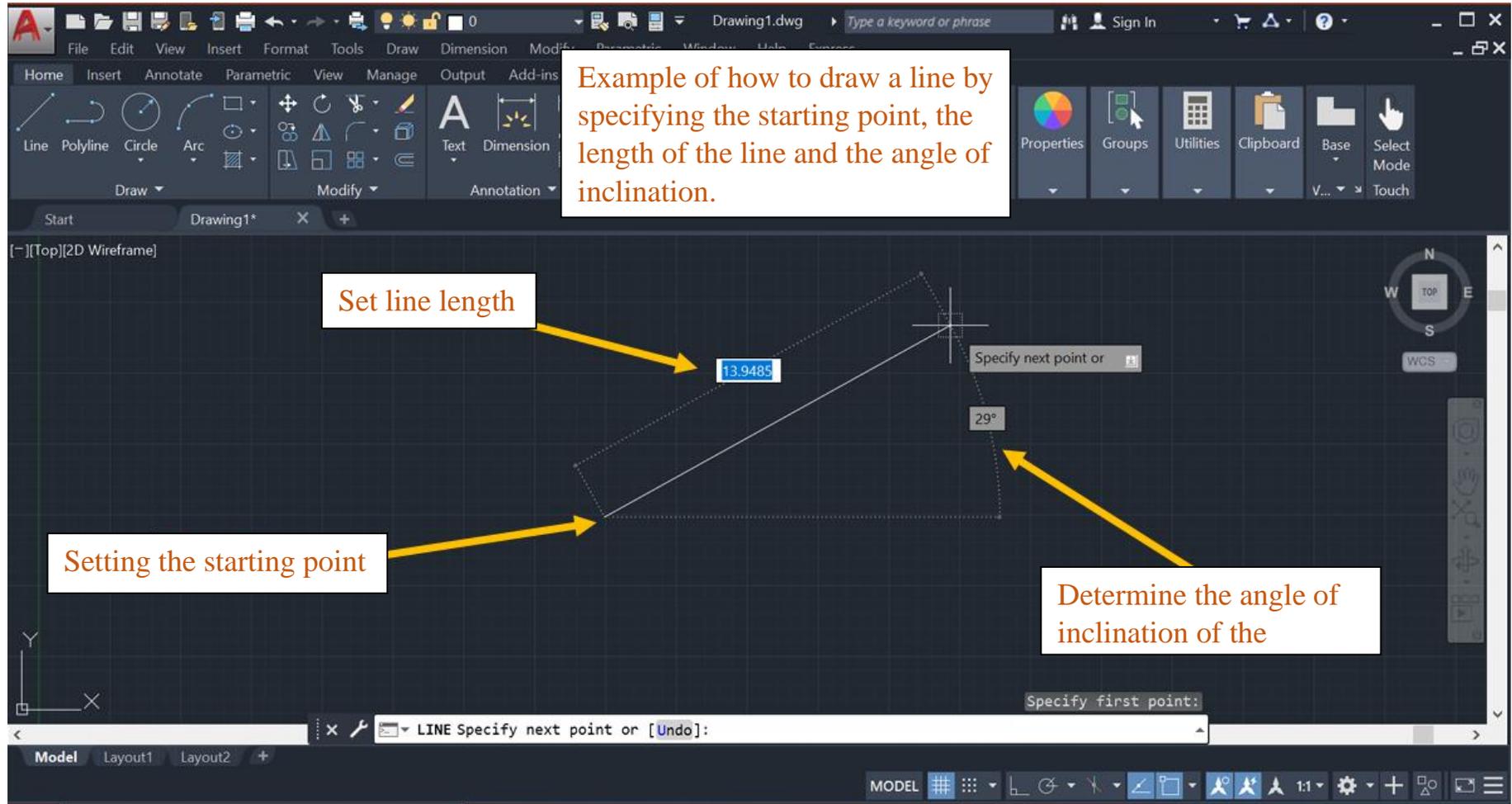
1. Select the command from the draw panel  
اختر الامر من لوحة الرسم كما مشار اليه في السهم
2. Type Line or L in the command bar then ENTER  
اكتب الكلمة او اول حرف ثم اضغط انتر (ادخال)

After activating the command, the line can be drawn in several ways

- By specifying the start and end points using the mouse
- By specifying the coordinates of the two points using the keyboard
- By specifying the first point and then specifying the length of the line and its angle of inclination

In any case, you must press Enter







Al-Mustaqbal University  
Department (Communications Engineering)  
Class (1<sup>ST</sup> class)  
Subject (Engineering drawing) / Code (UOMU028014)  
Lecturer (Doaa Hazim Aziz)  
1<sup>st</sup>/2<sup>nd</sup> term – Lect. (Drawing commands)

The screenshot shows the AutoCAD interface with the PLINE command help window open. The help window contains the following text:

**Polyline**  
Creates a 2D polyline

A 2D polyline is a connected sequence of segments created as a single planar object. You can create straight line segments, arc segments, or a combination of the two.

The diagram shows a closed polygon with six vertices labeled 1 through 6. The vertices are connected by straight line segments in the following order: 1 to 2, 2 to 3, 3 to 4, 4 to 5, 5 to 6, and 6 to 1.

Command: `_pline`

Command: `_pline`

This command is similar to the previous one, but it consists of several connected lines.

But the line command also draws connected lines, so what is the difference?

The difference is that after drawing the multiple line, AutoCAD treats it (with all its parts) as a single element. If you copy it, it copies all the connected lines, and if you delete it, it deletes all the lines.





**To start the command Circle:** لتفعيل امر رسم الدائرة

- 1. Select the command from the draw panel** اختر الامر من لوحة الرسم كما موضح في السهم
- 2. Type Circle or C in the command bar then ENTER** اكتب الكلمة او اول حرف ثم اضغط انتر (ادخال)

After activating the command, the circle can be drawn in several ways

- By specifying the center of the circle and its radius using the mouse or keyboard
- By specifying the center of the circle and its diameter
- By specifying two points
- By specifying three points
- By specifying two tangents and the radius of the circle
- By specifying three tangents

**In all cases, the Enter key must be pressed**





Al-Mustaqbal University  
Department (Communications Engineering)  
Class (1<sup>ST</sup> class)  
Subject (Engineering drawing) / Code (UOMU028014)  
Lecturer (Doaa Hazim Aziz)  
1<sup>st</sup>/2<sup>nd</sup> term – Lect. (Drawing commands)

This command is responsible for drawing an infinite continuous line (it has no beginning or end)  
Even if you move the board away it will continue to appear  
This line has several benefits  
Drawing extensions  
Finding meeting points  
Forming shapes from the meeting of several lines  
Drawing axes  
Drawing a reference line  
This command can be activated in two ways:  
From the drawing board by clicking on the icon  
Using the keyboard and typing **XL** or **X Line**  
Then pressing Enter





Al-Mustaqbal University  
Department (Communications Engineering)  
Class (1<sup>ST</sup> class)  
Subject (Engineering drawing) / Code (UOMU028014)  
Lecturer (Doaa Hazim Aziz)  
1<sup>st</sup>/2<sup>nd</sup> term – Lect. (Drawing commands)

**Rectangle**  
Creates a rectangular polyline

Creates a rectangular polyline from the specified the rectangle parameters (length, width, rotation) and type of corners (fillet, chamfer, or square).

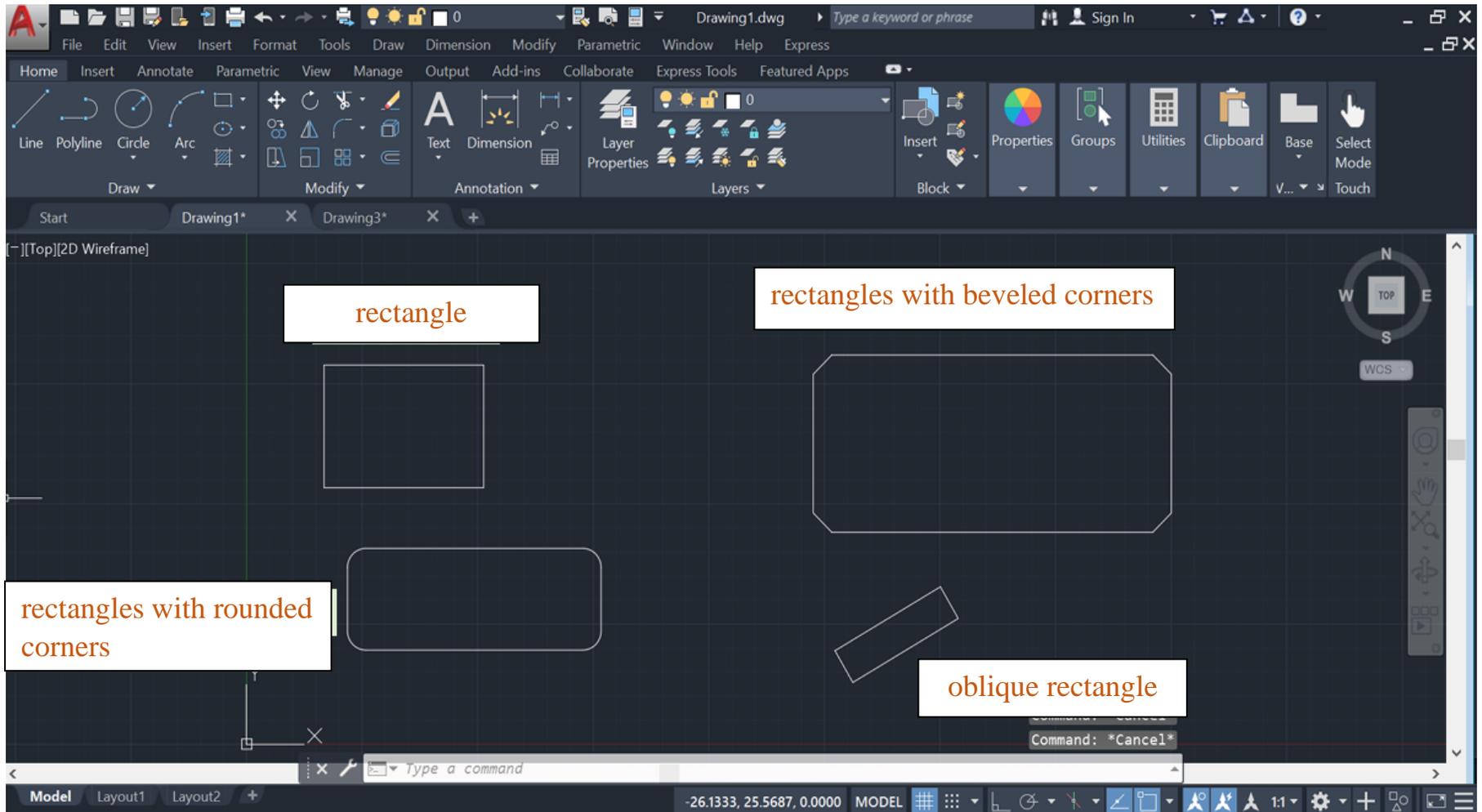
**RECTANG**  
Press F1 for more help

RECTANG Specify first corner point or [Chamfer Elevation Fillet Thickness Width]:

This command is responsible for drawing rectangular shapes (including squares)  
It can also draw rectangles with beveled or rounded corners  
This command can be activated in two ways:  
From the drawing panel by clicking on the icon  
Using the keyboard and typing **Rectang**  
**Then pressing Enter**

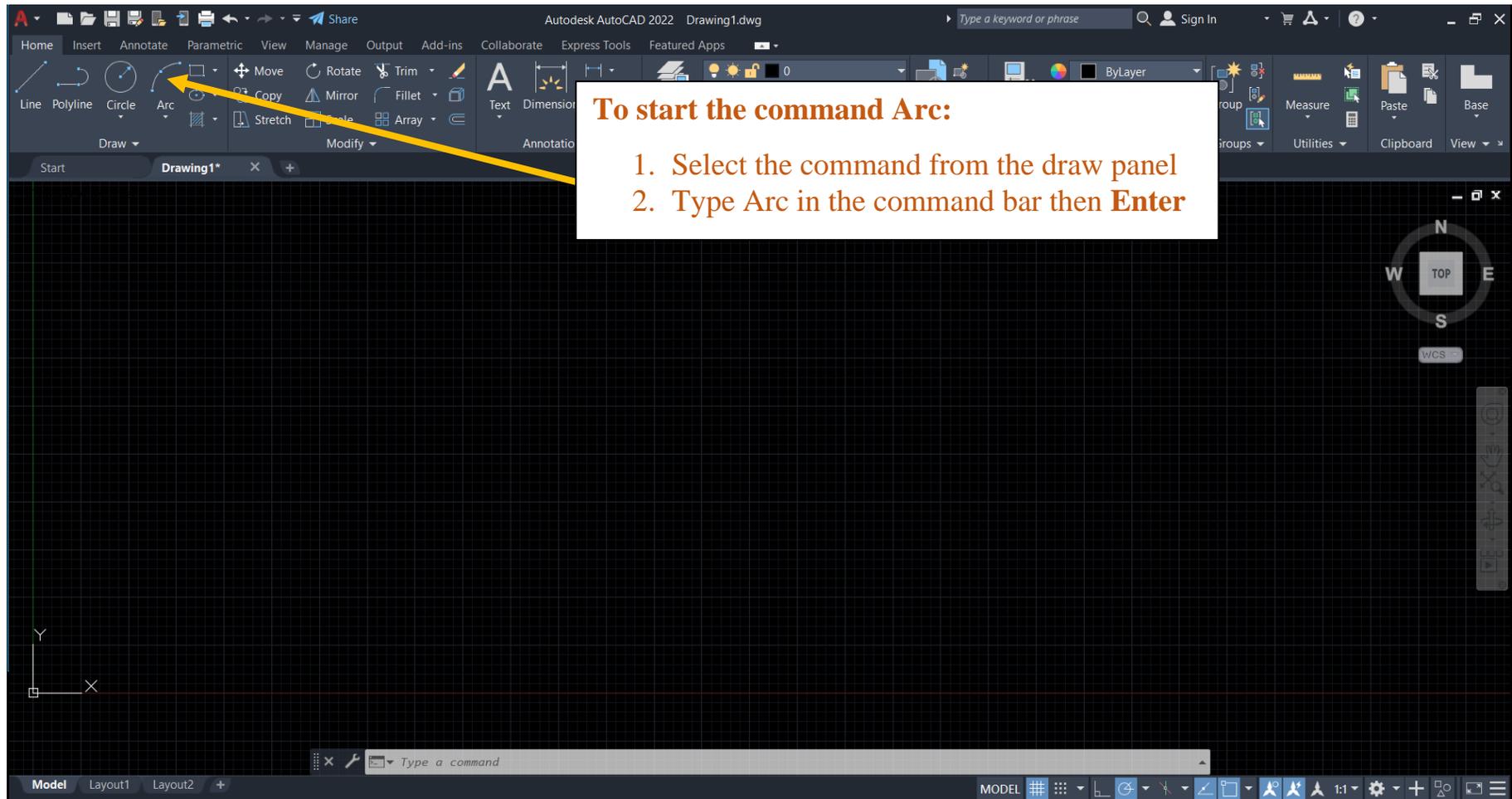
In general, a rectangle is drawn by specifying a location for two corners in it







Al-Mustaqbal University  
Department (Communications Engineering)  
Class (1<sup>ST</sup> class)  
Subject (Engineering drawing) / Code (UOMU028014)  
Lecturer (Doaa Hazim Aziz)  
1<sup>st</sup>/2<sup>nd</sup> term – Lect. (Drawing commands)





Al-Mustaqbal University  
Department (Communications Engineering)  
Class (1<sup>ST</sup> class)  
Subject (Engineering drawing) / Code (UOMU028014)  
Lecturer (Doaa Hazim Aziz)  
1<sup>st</sup>/2<sup>nd</sup> term – Lect. (Drawing commands)

The screenshot shows the AutoCAD software interface. The 'Polygon' command help window is open, displaying the following text:

**Polygon**  
Creates an equilateral closed polyline

You can specify the different parameters of the polygon including the number of sides. The difference between the inscribed and circumscribed options is shown.

Below the text, two diagrams illustrate the 'inscribed' and 'circumscribed' options for a polygon. The inscribed option shows a polygon with a dashed circle inside it, and the circumscribed option shows a polygon with a dashed circle outside it. Both diagrams have a green 'x' at the top and a green '\*' at the center, with the number '2' next to the 'x' and '1' next to the '\*'.

At the bottom of the help window, it says 'POLYGON' and 'Press F1 for more help'.

Overlaid on the right side of the help window is a white text box with orange text:

This command is responsible for drawing polygons. Polygons can be drawn in several shapes. This command can be activated in two ways: From the drawing panel by clicking on the icon Using the keyboard and typing the command name in the command bar Then pressing Enter In general, the polygon is drawn after determining the number of its sides and its center in two ways:

- To contain a circle of a specific diameter
- To be contained within a circle of a specific diameter

Yellow arrows point from the text box to the 'Polygon' icon in the ribbon and to the two diagrams in the help window.





Al-Mustaqbal University  
Department (Communications Engineering)  
Class (1<sup>ST</sup> class)  
Subject (Engineering drawing) / Code (UOMU028014)  
Lecturer (Doaa Hazim Aziz)  
1<sup>st</sup>/2<sup>nd</sup> term – Lect. (Drawing commands)

**Center**  
Creates an ellipse using a specified center point

Creates an ellipse using a center point, the endpoint of the first axis, and the length of the second axis. You can specify the distances by clicking a location at the desired distance or by entering a value for the length.

**ELLIPSE**  
Press F1 for more help

Command: `_ellipse`  
Specify axis endpoint of ellipse or [Arc/Center]: `_a`

ELLIPSE Specify axis endpoint of elliptical arc or [Center]:

This command is responsible for drawing the **Ellipse**.

This command can be activated in two ways:

- From the drawing panel by clicking on the icon
- Using the keyboard and typing the command name

Then pressing **Enter**

In general, the Ellipse has a center and two axes, one long and the other short. If they are equal, it becomes a circle





Al-Mustaqbal University  
Department (Communications Engineering)  
Class (1<sup>ST</sup> class)  
Subject (Engineering drawing) / Code (UOMU028014)  
Lecturer (Doaa Hazim Aziz)  
1<sup>st</sup>/2<sup>nd</sup> term – Lect. (Drawing commands)

