Al-Mustaqbal University / College of Engineering & Technology
Department (Department of Medical Instrumentation Techniques Engineering)
Class (First)
Subject (Engineering Drawing) / Code (UOMU024014)
Lecturer (M.sc.Alaa Khalid)
1ˢᵗ term – Lecture No.3 & Lecture Name (Drawing commands)

Email : alaa.khalid.abdalreda@uomus.edu.iq

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Engineering)
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Objectives
 Draw rectangular
rectangular option

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Activate W

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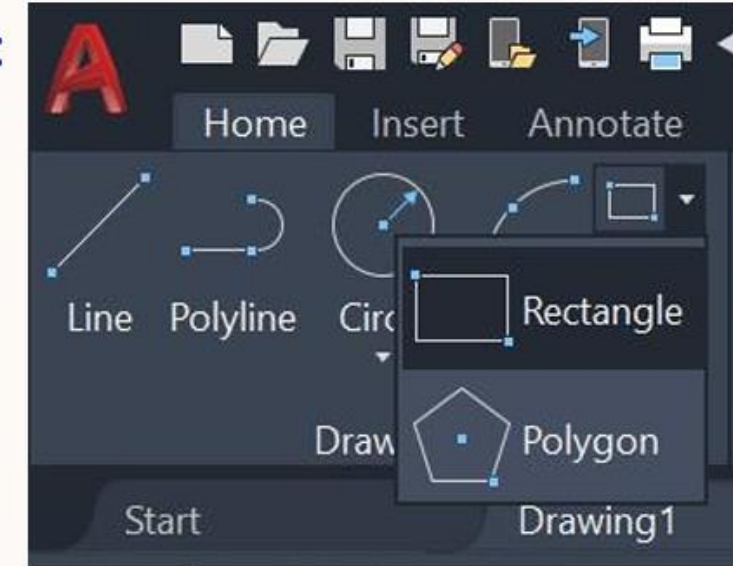1st term – Lecture No.3 & Lecture Name (Drawing commands)

1. Rectangle

- The arc tool can be arrived from:

- Home> draw> rectangule

- From the command window by write RECTANG after that click enter

- Command: RECTANG enter

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

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Activate W
Go to Settings

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rectangle options

- Rectangle by two opposite corners.

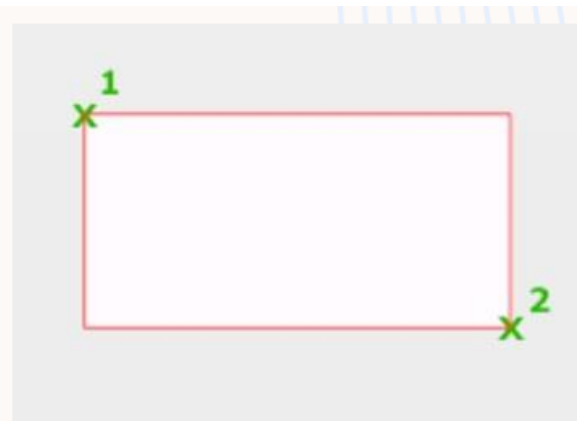- In AuoCAD, You can draw rectangle by entering coordinate of two corner points.

Fig 5.1: Rectangle by two opposite corneroptic

يمكن رسم المستطيل عن طريق ادخال احداثيات نقطتين زاوية (شرط ان تكون النقاط متعاكسة كما في الشكل نقطة 1و2).5.1

Draw rectangle with first corner point(2,2) and second opposite corner point (4,6)?

Command: RECTANG enter
Specify first corner point or
[Chamfer/Elevation/Fillet/Thickness/Width]: 2,2 enter
Specify other corner point or [Area/Dimensions/Rotation]: 4,6 enter

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- Rectangle by specify first corner and area .

- In AuoCAD, You can draw rectangle by entering coordinate of the first corner point and area (selected by the option of the other corner point by write a after that specify length or width of rectangle.

- Area= length* width

يمكن رسم المستطيل عن طريق ادخال احداثي الزاوية الأولى للمستطيل ثم تحديد المساحة عن طريق كتابة حرف a.عند طلب الزاوية الأخرى كما في المثال ادناة

Draw rectangle that area=6 units as shown in the figure (5.2)?

Command: RECTANG enter
Specify first corner point or
[Chamfer/Elevation/Fillet/Thickness/Width]: 2,2 enter
Specify other corner point or [Area/Dimensions/Rotation]: a
enter
Enter area of rectangle in current units <6.0000>: 6 enter
Calculate rectangle dimensions based on [Length/Width]
<Length>: L enter   →specify length   3 enter

3.0000

2,2

Figure (5.2)

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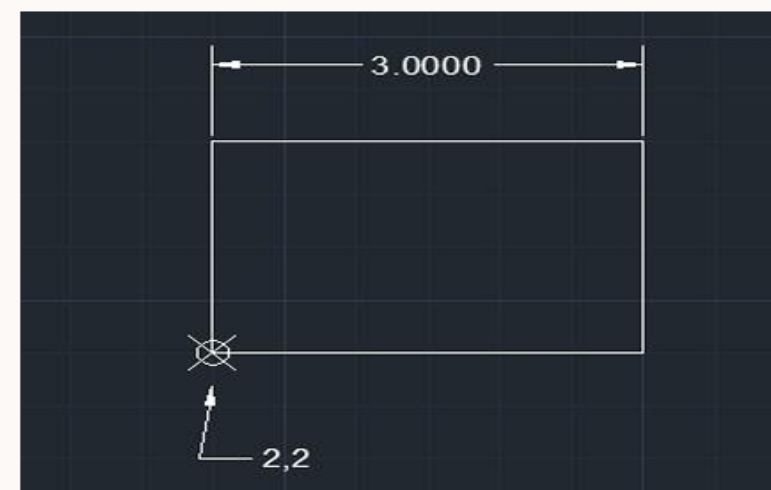1st term – Lecture No.3 & Lecture Name (Drawing commands)

- **Rectangle by specify first corner and dimension .**

- In AuoCAD, You can draw rectangle by entering coordinate of the first corner point and dimensions (selected by the option of the other corner point by write d after that specify length or width of rectangle.

يمكن رسم المستطيل عن طريق ادخال احداثي الزاوية الأولى للمستطيل ثم تحديد الابعاد عن طريق كتابة حرف d. عند طلب الزاوية الأخرى كما في المثال ادناة

Draw rectangle as shown in the figure (5.3)?

Command: RECTANG enter
Specify first corner point or
[Chamfer/Elevation/Fillet/Thickness/Width]: 3,4 enter
Specify other corner point or [Area/Dimensions/Rotation]: d enter
Specify length for rectangles <5.0000>: 4 enter
Specify width for rectangles <2.0000>: 1 enter
Specify other corner point or [Area/Dimensions/Rotation]:
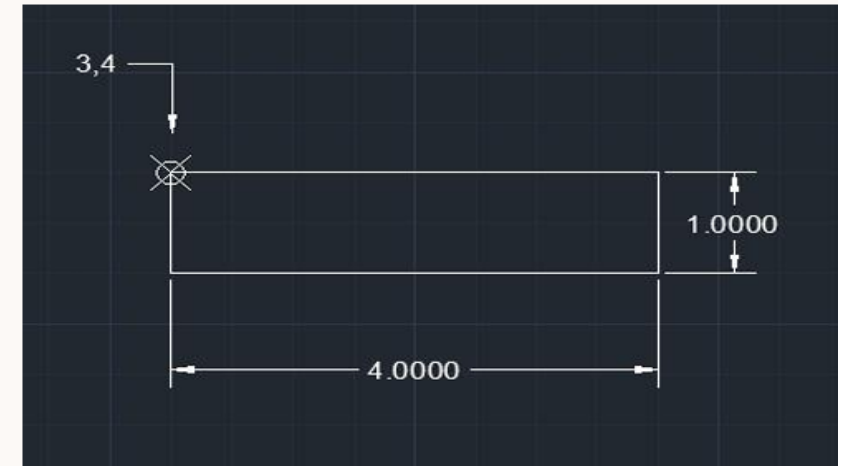click to the orientation of the rectangle

Figure (5.3)

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ectangle by specify first corner and rotation (angle) .

- In AuoCAD, You can draw rectangle by entering coordinate of the first corner point and rotation for other corner (selected by the option of the other corner point by write r after that specify area or dimension of rectangle.

يمكن رسم المستطيل عن طريق ادخال احداثي الزاوية الأولى للمستطيل ثم تحديد زاوية ميلان المستطيل وبعد ذلك ندخل المساحة او الابعاد .

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Example. Draw rectangle that area=8 units as shown in the figure (5.4)?

solution

Command: RECTANG enter

Specify first corner point or [Chamfer/Elevation/Fillet/Thickness/Width]: 4,4 enter

Specify other corner point or [Area/Dimensions/Rotation]: r enter

Specify rotation angle or [Pick points] <60>: 60 enter

Specify other corner point or [Area/Dimensions/Rotation]: a enter

Enter area of rectangle in current units <3.0000>: 8 enter

Calculate rectangle dimensions based on [Length/Width] <Length>: l enter

Enter rectangle length <3.0000>: 4 enter

Figure (5.4)

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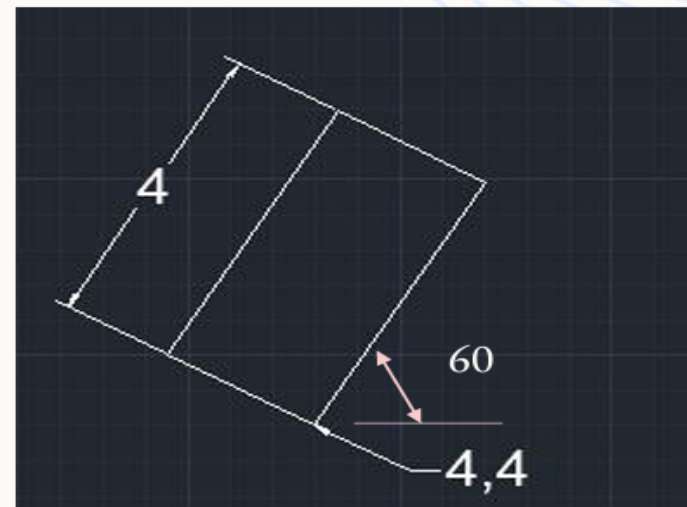1st term – Lecture No.3 & Lecture Name (Drawing commands)

Chamfer:

the chamfer command enables to place a chamfer at the rectangle corner.

- The chamfer is created at all four corner
- You can give two different chamfer value to create an unequal chamfer.

يمكن رسم المستطيل بحواف مشطوبة بواسطة جعل اركان المستطيل مشطوبة.

Draw rectangle as shown in figure 6-1?

Command: _rectang
Specify first corner point or
[Chamfer/Elevation/Fillet/Thickness/Width]: c enter
Specify first chamfer distance for rectangles <0.0000>: 0.4 enter
Specify second chamfer distance for rectangles <0.4000>: 0.4 enter
Specify first corner point or
[Chamfer/Elevation/Fillet/Thickness/Width]: 4,4 enter
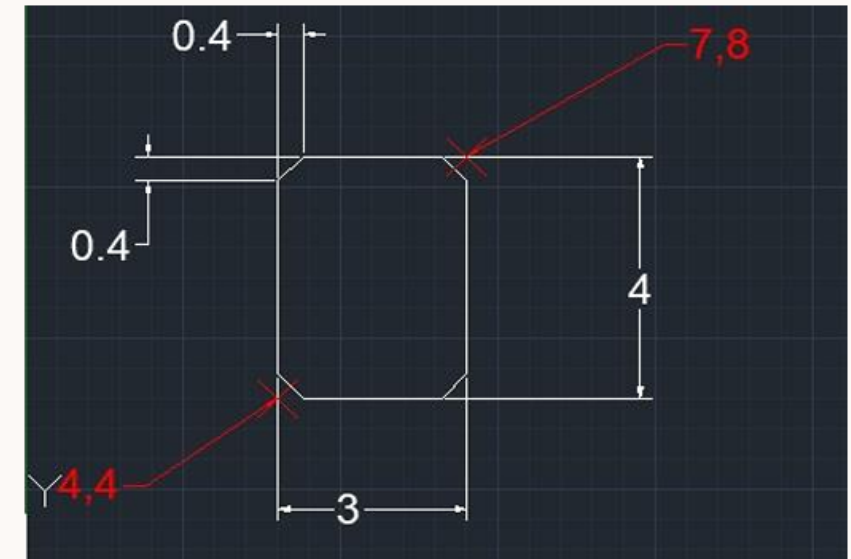Specify other corner point or
[Area/Dimensions/Rotation]: 7,8 enter

Figure 6-1

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- fillet:

- the fillet command allow you to create filleted rectangle corner by specify the fillet radius.

- The length and width of rectangle must be equal or greater than twice the value of the specified fillet

يمكن رسم المستطيل بحواف مقوسة بواسطة جعل اركان المستطيل مقوسة بنصف قطر محدد.

Draw rectangle as shown in figure 6-2?

Command: _rectang
Specify first corner point or
[Chamfer/Elevation/Fillet/Thickness/Width]: f enter
Specify fillet radius for rectangles <0.4000>: 0.5enter
Specify first corner point or
[Chamfer/Elevation/Fillet/Thickness/Width]: 4,4
enter
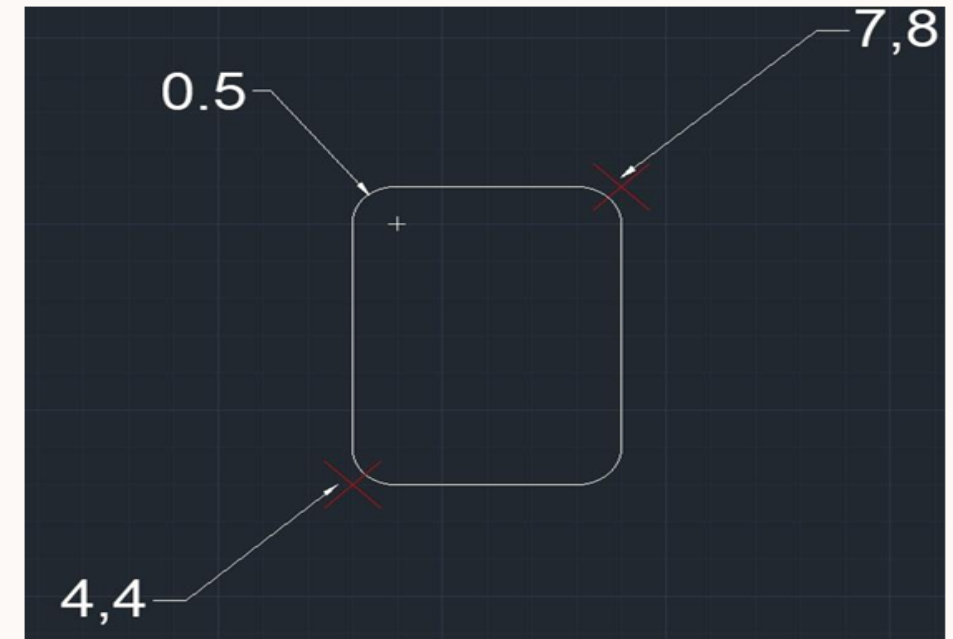Specify other corner point or
[Area/Dimensions/Rotation]: 7,8 enter

Figure 6-2

Thank you