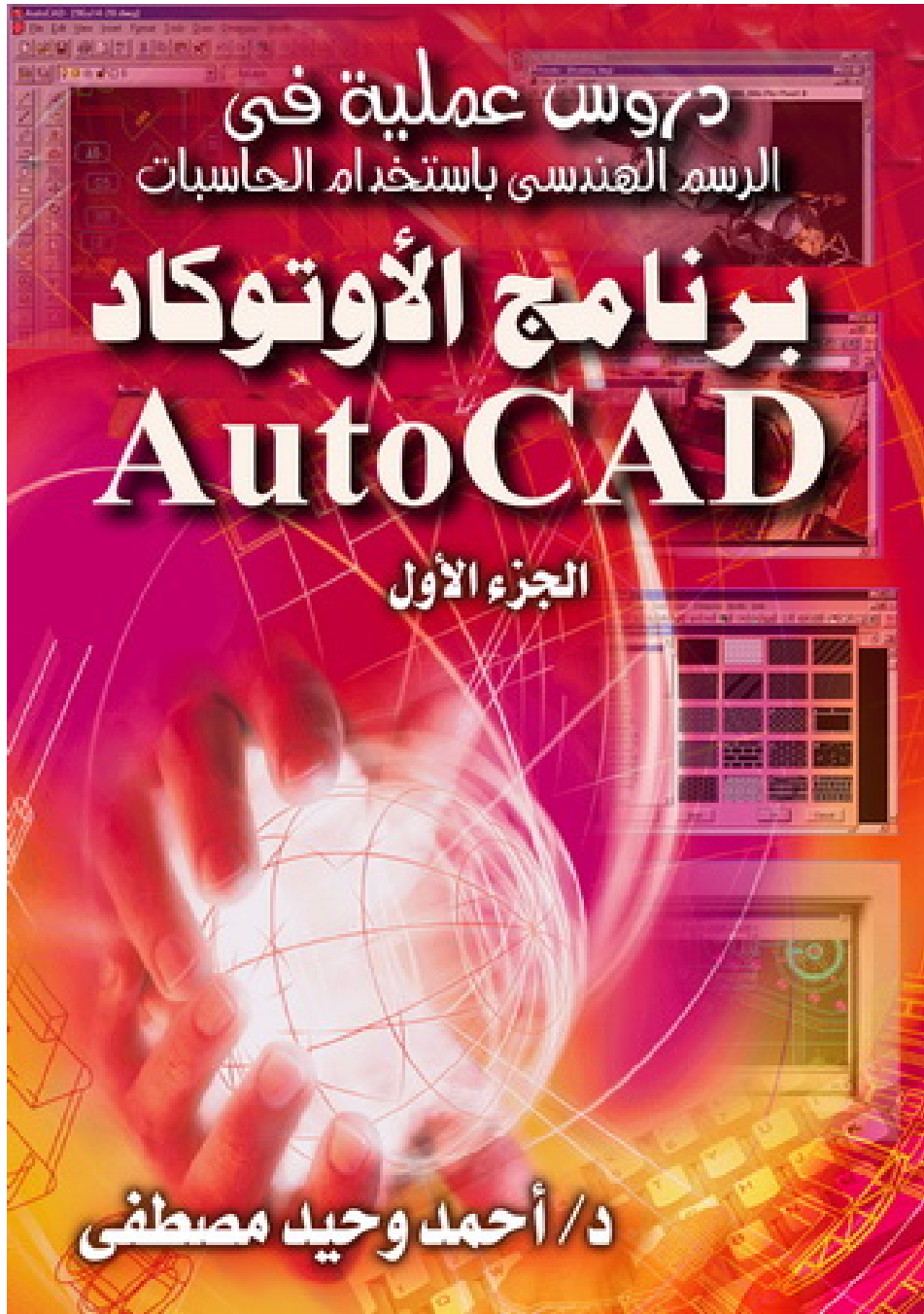
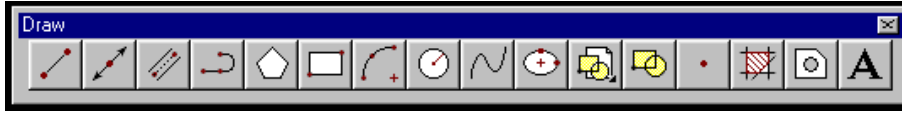




أوامر وأيقونات الرسم

<u>Draw</u>	
<u>Line</u> <u>Ray</u> Construction Line <u>Multiline</u>	
<u>Polyline</u> <u>3D Polyline</u> Polygon Rectangle	Arc Circle Line ..Polygon
<u>Arc</u> ▶ <u>Circle</u> ▶ Donut <u>Spline</u> <u>Ellipse</u> ▶	.1-5 2-5 Draw
<u>Block</u> ▶ <u>Point</u> ▶	
<u>Hatch...</u> <u>Boundary...</u> <u>Region</u>	Draw
<u>Text</u> ▶	
<u>Surfaces</u> ▶ <u>Solids</u> ▶	



2-5

تمرین 1-5:

:				
	Spline	9	Line	1
	Ellipse	10	(Xline)	2
	Insert Block	11	(Multiline)	3
	Make Block	12	(Polyline)	4
	Point	13	Polygon	5
	Hatch	14	Rectangle	6
	Region	15	Arc	7
	Text	16	Circle	8

أولاً: أمر وأيقونة رسم الخط Line

إصدار الأمر Line:



Draw

Line

•
Toolbar

.

Draw

Line

•

Line

L

•

.Enter

.

Line

•

Command : Line
From point: (point)

To point: (point)
 To point: (point)
 To point: (point)
 To point: ...Enter to end line sequence

خيارات الأمر :

Continue

Close

C

U

RUBBER BAND

•

Enter

•

U

•

تمرين 5-2:

To point:

Command : line
 From point:100, 150
 To point: 130, 200
 To point: @ 120< 90
 To point: @ 100< -60
 To point: @-60, -70
 To point: @ -60, 80
 To point: @ -40, 0
 To point: @ 100, 150

Command

ثانياً- أمر رسم دائرة Circle

إصدار الأمر : Circle



Draw

Circle

Toolbar

Draw

Circle

C

Circle

Command : Circle

CIRCLE

3P/2P/TTR/<Center point>: (point)

Diameter/<Radius>: (radius value)

:

Center , Radius

Center , Diameter

3P

2P

.TTR

.Tan, Tan, Tan

Draw

Circle

5-5

1-5

Command area

خيارات الأمر :

Center-Point

Diameter

Radius

3P

2P

TTR

Enter

•

Circle

Donut

•

=

Hide

•

Redraw

•

Break

•

counter-

. clockwise

•

.Object Snap

تمرین 3-5:

30

50 50

Command: Circle

3p/ 2p/ TTR/ < Center point>:50,50

diameter/ <Radius>:30

Command:

40

40 40

تمرین 4-5:

Command: Circle 3p/2p/TTR/< Center point>: 40,40 diameter/ <Radius>: D Diameter:40 Command:
--

تمرین 5-5:

80,80 30,30

Command: Circle
3p/2p/TTR/< Center point>: 2p
First point on diameter: 30,30
Second point on diameter:80,80
Command:

80,80 30,30

Command: Circle
3p/2p/TTR/< Center point>: 2p
First point on diameter: 30,30
Second point on diameter:80,80
Command:

تمرین 5-6:

	:	
		Command: Circle
		3p/2p/TTR/< Center point>: 3p
		First point : 20,20
		Second point: 50,50
		Third point: 80,20
		Command:

	:	
		Command: Circle
		3p/2p/TTR/< Center point>: 3p
		First point : 20,20
		Second point: 50,50
		Third point: 80,20
		Command:

تمرین 5-7:

() .TTR
Command: Circle
3p/2p/TTR/< Center point>: TTR
Enter tangent spec: select point p1 on line
Enter Second Tangent spec: select point p2 on line
Radius: 20
Command:

() .TTR
Command: Circle
3p/2p/TTR/< Center point>: TTR
Enter tangent spec: select point p1 on line
Enter Second Tangent spec: select point p2 on line
Radius: 20
Command:

ثالثاً- أمر رسم قوس Arc

إصدار الأمر Arc :



Draw

Arc

Toolbar

Draw

Arc

A

Arc

ARC

Center/<Start point>: (point)

Center/End/<Second point>: (point)

End point: (point)

:

three points on the arc

.start point, center, end point

start point, center, included

.angle

.start point, center, length of chord

.start point, end point, radius

start point, end point,

.included angle

start point, center, starting

direction

Draw

Arc

:

5-5

1-5

.

خيارات الأمر :

Angle

Center

Direction

End point

Arc

Length

Start point

Radius

Arc

.Capital Letter

Pline Fillet

تمرین 5-8:

3-point

Command:

Command : Arc
 Center/<Start point>:5,5
 Center/End/<Second point>:9,8
 End point:8,4

تمرین 5-9:

):

(

Command: Arc

Center/<Start point>: 9,10
 Center/End/<Second point>:C
 Center:5,4
 Angel /Length of chord/<End point>:3,7
 Command:

تمرین 5-

:10

Command Arc .
 Center/< Start point > : 5,13
 Center/ End /< Second point > : C
 Center : 11,9
 Angle /Length of chord/<End point > : A
 Include Angle : + 100 or - 100
 Command

تمرین 5-11:

Command Arc .
 Center/< Start point > : 12,9
 Center/ End /< Second point > : C
 Center : 8,6
 Angle /Length of chord/<End point > : L
 Length of cgord + 7 or - 7
 Command

تمرین 5-12:

Command Arc .
 Center/< Start point > : 40,30
 Center/ End /< Second point > : E
 Center : 50,30
 Angle /Length of chord/<End point > : A
 Include Angle : + 145 or - 145
 Command :

تمرين 5-13:

:

Command Arc .
 Center/< Start point > : 17,16
 Center/ End /< Second point > : E
 Center : 9,12
 Angle /Length of chord/<End point > : A
 Radius : +5 or - 5
 Command :

تمرين 5-14:

:

Command Arc .
 Center/< Start point > : 17,16
 Center/ End /< Second point > : E
 Center : 9,12
 Angle /Length of chord/<End point > : D
 Direction from start point : +45 or - 45
 Command :

رابعاً - أمر رسم مضلع Polygon**إصدار الأمر Polygon :**

Polygon •

Draw Toolbar

Draw Polygon •

Pol Polygon •

صيغة الأمر Syntax :

Command: POLYGON
 Number of sides:
 Edge/<Center of polygon>: (enter a point)
 Inscribed in circle/Circumscribed about circle (I/C):
 Radius of circle:

Polygon •

. 1024 3



Center

Point Method

Command :Polygon.

Number of sides :6

Edge /< Center of Polygon >:50,50

Inscribed in circle /circumscribed about circle (I/C) I or C

C

I

Radius of circle :5 or @5<60 or select PI

Edge Method

Command

خيار 5-16:

Command :Polygon.

Number of sides :5

Edge /< Center of Polygon >:E

First point of edge 60,40

Second point of edge : @ 60,20

Command

خامسا - أمر رسم حلقة Donut أو Doughnut إصدار الأمر Donut :

- Draw Toolbar Donut
- Draw Donut
- do Donut
- DOUGHNUT or DONUT
 - Inside diameter <last>: (value or two points)
 - Outside diameter <last>: (value or two points)
 - Center of doughnut: (enter point)
 - Center of doughnut
 - Enter
- Polyline
- PEDIT
- .Fill
- .two ARCs Explode

خيارات الأمر :

Outside Diameter

Inside Diameter

Center

90

50

تمرين 5-17:

Command : Donut

Outside Diameter <10.000> 90
inside Diameter <20.000> 50
Center of Doughnut
Center of Doughnut Enter

Command:

70

تمرين 5-18:

Command : Donut

Outside Diameter <10.000> 70

inside Diameter <20.000>0
Center of Doughnut
Center of Doughnut Enter

Command:

سادسا - أمر كتابة نص Mtext أو Text
إصدار الأمر Mtext :



Draw

text

•

Toolbar

.

Draw

Text

•

Single line

Multiline text

text

t

Mtext

Text

•

Command: Text
Specify First Corner

:

Specify Opposite corner [Height/Justify/Rotation/Style/Width]

4-5

خيارات صندوق حوار النص :

Font

Font size

U

B

I

خيارات نافذة الأوامر :

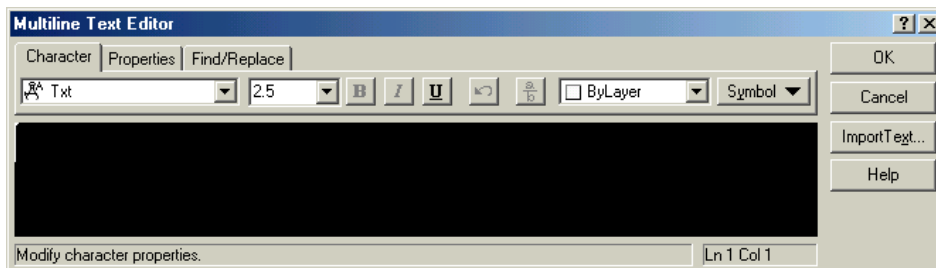
Height

Justify

Rotation

Style

Width



4-5

:

تمرين 5-19:

AutoCAD is the standard Drafting Program
Command : Text

Justify/Style/<Start point>

Height <2.500>

Rotation Angle <0>

Text: AutoCAD is the standard Drafting Program

تمرین 5-20:

Multiline Text Editor

سابعاً - أمر رسم الخط المتنوع Polyline

إصدار الأمر : Pline



Pline

•

Draw Toolbar

Draw

Polyline

•

pl

Pline

•

Command: Pline

From Point:

Arc/Close/Halfwidth/Length/Undo/Width/ <End point of line>"

خيارات الأمر :

Arc

Close

Halfwidth

Undo

Width

Enter

خيارات نمط الخط :

Arc

Enter

Close

Length

خيارات نمط القوس :

Angle

CEnter

Close

Direction

Line

Radius

Second pt

Undo

Width

Pline

:21-5 مزين

Command : PLINE

From piont :

Current line – width is 0.0000 :

Arc/Close/Halfwidth/Length/Undo/Width/<End point of line>

) width Enter W
(5 2

Starting width <0.0000 > :2

Ending width <0.2000>:5

:

Arc/Close/Halfwidth/Length/Undo/Width/<End point of line>

A

:

Angle/Center/Close/Direction/Halfwidth/Line/Radius/Second pt /Undo/
Width/<End point of arc>:

PLINE

Enter

Pline

:22-5 مزين

Command : PLINE

From point :

Current line – width is 0.0000 :

:

Arc/Close/Halfwidth/Length/Undo/Width/<End point of line>

:

Arc A

Angle/CEnter/Close/Direction/Halfwidth/Line/Radius/Second pt /Undo/
Width/<End point of arc>:

Arc

Center

Enter

CE

Center point : :

Angle/Length/<End point>

:

included angle :

Angle

Enter

A

.

ثامنا: رسم شكل القطع الناقص Ellipse

إصدار الأمر ELLIPSE :



Draw

ELLIPSE

•

Toolbar

.

Draw

ELLIPSE

•

.

el

ELLIPSE

•

Command : ELLIPSE

Arc/Center/<Axis End point 1>:

Axis End point 2:

<Other Axis Distance > Rotation

Draw

•

:

Center

•

Axis, End

Arc

خيارات الأمر :

Center

Axis

Rotate

Ellipse

axis endpoint 2 axis endpoint 1

.

()

polylines

polylines editing

. commands

TRIM BREAK

. Y X

insert

block

تمرين 5-22:

Command : Ellipse

Arc/Center/<Axis endpoint 1>: 50,50

Axis endpoint 2: 100,50

<Other axis distance>/Rotation: <Ortho on> 100,200

Command: zoom

All/Center/Dynamic/Extents/Previous/Scale(X/XP)/Window/<Realtime>:a