**LINE DRAWING ALGORITHMS**

**DIGITAL DIFFERENCE ANALYSER (DDA) LINE DRAWING LINE ALGORITHM**

If dx>dy

**START**

**STOP**

X>=x2 //

Y>=y2

X=x+xincriment

Y=yincrement

Set x =x1

Set y =y1

XIncrement=dx/dx

Yincrement =dy/dx

XIncrement=dx/dy

Yincrement =dy/dy

Set pixel (x.y)

**BRESENHAM’S LINE DRAWING ALGORITHM**

STARTT

NO

YES

STOP

NO

NO

YES

YES

NO

YES

YES

NO

Set k=k+1

if

dy>=k

Set pixel (xk,yk)

If

dx>=dy

yk+1=yk+1; xk+1=yk

Pk= pk +2dx

If

Pk >0

Xk+1=xk+1; yk+1=yk+1

Pk= pk +i2(2dy-2dx)

Set pixel (xk ,yk)

Set k=1

Pk =2dx-dy

if

dx>=k

Set k=k+1

If

Pk >0

Xk+1=xk+1; yk+1=yk

Pk= pk +i1(2dy)

Xk+1=xk+1; yk+1=yk+1

Pk= pk +i2 (2dy – 2dx)

(

Set pixel (xk, yk)

Pk =i1-dx

Set k=1

Calculate;

dx = x2-x1

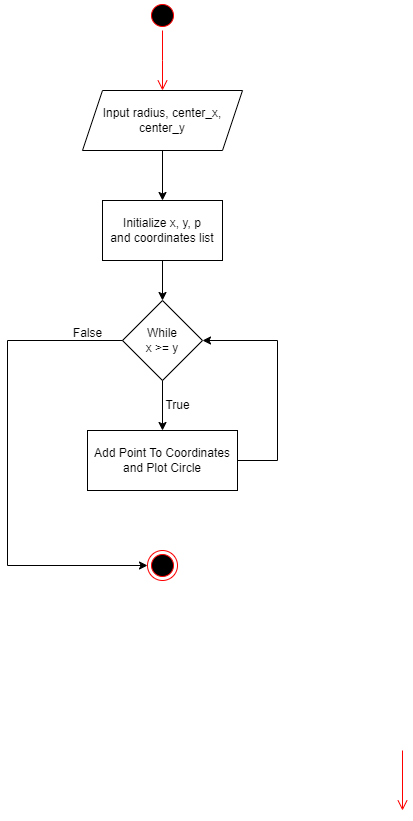
dy = y2-y1  
i1=2\*dy  
i2 = 2\*(dy-dx)

pk=i1-dx  
 d=i1-dx

Input x1,y2), (x2,y2)

**CIRCLE DRAWING ALGORITHM**

**MIDPOINT CIRCLE DRAWING ALGORITHM**

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