**Scan Conversion :**

Scan Conversion is the process of representing continuous graphics objects as a collection of discrete pixels.

**DDA (Digital Differential Analyzer Algorithm)**

* The Digital differential analyzer (DDA) algorithm is an incremental scan- conversion method. Such an approach is characterized by performing calculations at each step using results from the preceding step.
* The DDA algorithm is based on using dx or dy.
* A line is sampled at unit intervals in one coordinate and the corresponding integer values nearest the line path are determined for the other coordinate.

***DDA Algorithm***

Step 1: Start.

Step 2:Delcare x1,y1,x2,y2,dx,dy, step as integer variable and x, y, xinc, yinc as floating point.

Step 3:Read the values of two end points x1,y1,x2,y2.

Step 4:Calculate dx=x2-x1.

Step 5:Calculate dy=y2-y1.

Step 6:Claculate the value of step

If absolute (dx)>absolute(dy)

Then step = absolute(dx)

Else step = absolute(dy)

Step 7:Select the raster unit

Xinc=dx/step

Yinc=dy/step

Assign x=x1

Assign y=y1

Step 8:Set pixel (x,y)

Step 9: x=x + xinc

Y=y + yinc

Plot pixel (Round(x),Round(y))

Step 10:Repeat Step 9 until x=x2.

Step 11:End Algorithm