

DDA Algorithm:

Step 1: Input the starting and ending coordinates of the line (x₁,y₁) and (x₂,y₂)

Step 2: Calculate the differences

$$\Delta x = x_2 - x_1$$

$$\Delta y = y_2 - y_1$$

Step 3: Determine the number of steps

$$\text{Steps} = \max(|\Delta x|, |\Delta y|)$$

Step 4: Calculate the increments

$$x_{inc} = \frac{\Delta x}{steps}$$

$$y_{inc} = \frac{\Delta y}{steps}$$

Step 5: Initialize the starting point: $x = x_1, y = y_1$

Step 6: Iterate through the number of steps

a) plot the points (round(x_1),round(y_1))

b) $x = x + x_{inc}$

$$y = y + y_{inc}$$

Step 7: End