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<u>DDA ALGORITHM</u>

Example:-

1<u>) Draw a line using DDA Algorithm from (0,0) to (4,6)</u>

Ans-This case is for slope (m) greater than 1.

Slope (m) =(6-0)/(4-0) = 6/4 .

Step-1: x1=0; y1=0; x2=4; y2=6

Step-2: m=(6-0)/(4-0) = 6/4 which is more than 1.

Step-3: As m (6/4) is greater than 1 therefore y is increased and x is calculated.

Step-4 : Now increase the value of y and calculate value of x.

To calculate x, take line equation and find x , x2=x1+1/m.

The step will be y1=y1+1 and x1 =x1+1/(6/4) , After Simplification,

 Every time y1=y1+1 and x1=x1+4/6

Step	Y1	X1	Pixel
1	0	0	(0,0)
2	1	0+4/6=0.67=1	(1,1)
3	2	0.67+4/6=1.34	(1,2)
4	3	1.34+4/6=2.01	(2,3)
5	4	2.01+4/6= 2.68	(3,4)
6	5	2.68+4/6=3.35	(3,5)
7	6	3.35+4/6=4.02	(4,6)

The algorithm will stop here because the Y and X values have reached the End point (4,6).