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Ans 1) DDA line drawing Program

```
#include <Graphic.h>
Void main()
{
 float x,y,x1,y1,x2,y2,dx,dy,steps;
 Printf("Enter (x1,y1)");
 Scanf("%.df %.f",&x1,&y1);
 Printf("Enter (x2,y2)");
 Scanf("%.f %.f",&x2,&y2);
  initgraph(&gd,&gm);
   dx=abs(x2-x1);
   dy=abs(y2-y1);
   if(dx>=dy)
       steps=dx;
  else
       steps=dy;
  dx=dx/steps;
  dy=dy/steps;
  x= x1;
  y=y1;
  i=1;
   while(i<=steps)
   {
    putpixel(x,y,5);
     x= x+dx;
     y= y+dy;
      i=i+1;
     delay(50);
   }
delay(5000);
closegraph();
}
```

Akash

DDA Algorithm

Step 1: Start Algorithm

Step 2: declare $x_1, y_1, x_2, y_2, dx, dy, x, y$ integer variable.

Step 3: Enter value of x_1, y_2, x_2, y_2;

Step 4: Calculate $dx = x_2 - x_1$

Step 5: Calculate $dy = y_2 - y_1$

Step 6: if $abs(dx) > abs(dy)$
then step = abs(dx)
Else

Step 7: $x_{inc} = dx / step$
$y_{inc} = dy / step$
assign $x = x_1$
assign $y = y_1$

Step 8: set pixel (x, y)

Step 9: $x = x + x_{inc}$
$y = y + y_{inc}$
set pixel (Round(x), Round(y))

Step 10: Repeat step 9 until $x = x_2$

Step 11: End Algorithm.

Aram

```
Enter the value of x1 and y1 : 100
100
Enter the value of x2 and y2: 150
150
```