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1  //Breseham's Line Drawing
2  //SE3-41
3  #include<graphics.h>
4  #include<stdio.h>
5
6  void drawline(int x0, int y0, int x1, int y1)
7  {
8      int dx, dy, p = 0, x, y, m;
9      dx = x1 - x0;
10     dy = y1 - y0;
11     x = x0;
12     y = y0;
13     m = dy / dx;
14     p = 2*dy - dx;
15     printf("p\tX\tY\n");
16     while(x < x1)
17     {
18         if(m < 1)
19         {
20             if(p < 0)
21             {
22                 x++;
23                 p = p + 2*dy;
24                 putpixel(200+x, 200+y, YELLOW);
25                 printf("\n%d\t%d\t%d", p, x, y);
26             }
27             else
28             {
29                 x++;
30                 y++;
31                 p = p + 2*dy - 2*dx;
32                 putpixel(200+x, 200+y, YELLOW);
33                 printf("\n%d\t%d\t%d", p, x, y);
34             }
35         }
36         else
37         {
38             if(p < 0)
39             {
40                 y++;
41                 p = p + 2*dx;
42                 putpixel(200+x, 200+y, YELLOW);
43                 printf("\n%d\t%d\t%d", p, x, y);
44             }
45             else
46             {
47                 x++;
48                 y++;
49                 p = p + 2*dx - 2*dy;
50                 putpixel(200+x, 200+y, YELLOW);
51                 printf("\n%d\t%d\t%d", p, x, y);
52             }
53         }
54     }
55 }
56
57 int main()
58 {
59     int gd = DETECT, gm, x0, y0, x1, y1;
60     initgraph(&gd, &gm, (char*)" ");
61     printf("Enter the co-ordinates of the first point:\n");
62     scanf("%d%d", &x0, &y0);
63     printf("Enter the co-ordinates of the second point:\n");
64     scanf("%d%d", &x1, &y1);
65     drawline(x0, y0, x1, y1);
66     getch();
67     closegraph();
68     return 0;
69 }

```

Enter the co-ordinates of the first point:

100 102

Enter the co-ordinates of the second point:

114 115

p	X	Y
10	101	103
8	102	104
6	103	105
4	104	106
2	105	107
0	106	108
-2	107	109
24	108	109
22	109	110
20	110	111
18	111	112
16	112	113
14	113	114
12	114	115

