

Code:

```
1 #include <graphics.h>
2 #include <conio.h>
3 #include <math.h>
4
5 void koch(int x1, int y1, int x2, int y2, int it)
6 {
7     float angle = 60 * M_PI / 180;
8     int x3 = (2 * x1 + x2) / 3;
9     int y3 = (2 * y1 + y2) / 3;
10
11     int x4 = (x1 + 2 * x2) / 3;
12     int y4 = (y1 + 2 * y2) / 3;
13
14     int x = x3 + (x4 - x3) * cos(angle) + (y4 - y3) * sin(angle);
15     int y = y3 - (x4 - x3) * sin(angle) + (y4 - y3) * cos(angle);
16
17     if (it > 0)
18     {
19         koch(x1, y1, x3, y3, it - 1);
20         koch(x3, y3, x, y, it - 1);
21         koch(x, y, x4, y4, it - 1);
22         koch(x4, y4, x2, y2, it - 1);
23     }
24     else
25     {
26         setcolor(WHITE);
27         delay(10);
28         line(x1, y1, x3, y3);
29         line(x3, y3, x, y);
30         line(x, y, x4, y4);
31         line(x4, y4, x2, y2);
32     }
33 }
34
35 int main(void)
36 {
37     int gd = DETECT, gm;
38     int x1, y1, x2, y2, it;
39     initgraph(&gd, &gm, "C:\\TURBOC3\\BGI");
40     printf("Enter line coordinates : \n");
41     scanf("%d%d%d%d", &x1, &y1, &x2, &y2);
42     printf("No. of iterations : ");
43     scanf("%d", &it);
44     koch(x1, y1, x2, y2, it);
45     getch();
46     return 0;
47 }
```