

```
1 #include <iostream>
2 #include <graphics.h>
3 #include <math.h>
4 #include <cstdlib>
5 using namespace std;
6 void move(int j, int h, int &x, int &y)
7 {
8     if (j == 1)
9         y -= h;
10    else if (j == 2)
11        x += h;
12    else if (j == 3)
13        y += h;
14    else if (j == 4)
15        x -= h;
16    lineto(x, y);
17 }
18 void hilbert(int r, int d, int l, int u, int i, int h, int &x, int &y)
19 {
20     if (i > 0)
21     {
22         i--;
23         hilbert(d, r, u, l, i, h, x, y);
24         move(r, h, x, y);
25         hilbert(r, d, l, u, i, h, x, y);
26         move(d, h, x, y);
27         hilbert(r, d, l, u, i, h, x, y);
28         move(l, h, x, y);
29         hilbert(u, l, d, r, i, h, x, y);
30     }
31 }
32 int main()
33 {
34     int n, x1, y1;
35     int x0 = 50, y0 = 150, x, y, h = 10, r = 2, d = 3, l = 4, u = 1;
36     cout << "Give the value of n=";
37     cin >> n;
38     x = x0;
39     y = y0;
40     int driver = DETECT, mode = 0;
41     initgraph(&driver, &mode, NULL);
42     moveto(x, y);
43     hilbert(r, d, l, u, n, h, x, y);
44     delay(10000);
45     closegraph();
46     return 0;
47 }
```

## SDL-libgraph -- Graphics on GNU/Linux

