

CODE:

```
#include<iostream>

#include<graphics.h>

#include<math.h>

#include<cstdlib>

using namespace std;

void move(int j, int h, int &x,int &y)

{

if(j==1)

y-=h;

else

if(j==2)

x+=h;

else if(j==3)

y+=h;

else if(j==4)

x-=h;

lineto(x,y);

}

void hilbert(int r,int d,int l ,int u,int i,int h,int &x,int &y)

{

if(i>0)

{

i--;

hilbert(d,r,u,l,i,h,x,y);
```

```

move(r,h,x,y);

hilbert(r,d,l,u,i,h,x,y);

move(d,h,x,y);

hilbert(r,d,l,u,i,h,x,y);

move(l,h,x,y);

hilbert(u,l,d,r,i,h,x,y);

}

}

int main()

{

int n,x1,y1;

int x0=50,y0=150,x,y,h=10,r=2,d=3,l=4,u=1;

cout<<"Give the value of n=";

cin>>n;

x=x0;

y=y0;

int driver=DETECT,mode=0;

initgraph(&driver,&mode,NULL);

moveto(x,y);

hilbert(r,d,l,u,n,h,x,y);

delay(10000);

closegraph();

return 0;

}

```

USER INPUT:

Give the value of  $n=4$

OUTPUT:

