```
#include<iostream>
#include<graphics.h>
#include<math.h>
using namespace std;
int main(){
   int gd,gm,n,i,x[100],y[100],k,xint[100];
   float dx,dy,slope[25];
   gd = DETECT;

   cout << "Enter the number of edges :";
   cin >> n;
   for(i=0;i<n;i++){
         cin >> x[i];
         cin >>y[i];
         }
         x[n]=x[0];
         y[n]=y[0];
   initgraph(&gd,&gm,NULL);
         for(i=0;i<n;i++){
               line(x[i],y[i],x[i+1],y[i+1]);
               }


                        //for each edge find slope
for(i=0;i<n;i++)
        line(x[i],y[i],x[i+1],y[i+1]);
int temp;
for(i=0;i<n;i++)
{
dy=y[i+1]-y[i];
dx=x[i+1]-x[i];
if(dy==0)
slope[i]=1;
else if(dx==0)
slope[i]=0;
else
slope[i]=dx/dy;
}



   for(int c=0;c<480;c++)
{
k=0;
```

```
for(i=0;i<n;i++)
{
if((y[i]<=c && y[i+1]>c)||(y[i]>c && y[i+1]<=c))
{
xint[k]=x[i]+slope[i]*(c-y[i]);
k++;
}
}
for(int j=0;j<k-1;j++)
{
for(i=0;i<k-1;i++)
{
if(xint[i]>xint[i+1])
{
temp=xint[i];
xint[i]=xint[i+1];
xint[i+1]=temp;
}
}
}
// fill the color in polygon
for(i=0;i<k;i=i+2)
{
setcolor(RED);
line(xint[i],c,xint[i+1],c);

}
}

   getch();
   closegraph();
   return 0;
   }
```