Aim: Write a program to perform Two-dimensional Translation on Line Segment.

#include <stdio.h>  
#include <stdlib.h>  
#include<graphics.h>  
#include<conio.h>  
#include<math.h>  
void draw2d(int,int [],int [],int,int);  
void main()  
{  
int gd=DETECT,gm;  
int x[20],y[20],tx=0,ty=0,i,fs;  
initgraph(&gd,&gm,"");  
printf("No of sides : ");  
scanf("%d",&fs);  
printf("Co-ordinates : ");  
for(i=0;i<fs;i++)  
{  
printf("(x%d,y%d)",i,i);  
scanf("%d%d",&x[i],&y[i]);  
}  
draw2d(fs,x,y,tx,ty);  
printf("translation (x,y) : ");  
scanf("%d%d",&tx,&ty);  
draw2d(fs,x,y,tx,ty);  
getch();  
}  
void draw2d(int fs,int x[20],int y[20],int tx,int ty)  
{  
int i;  
for(i=0;i<fs;i++)  
{  
if(i!=(fs-1))  
line(x[i]+tx,y[i]+ty,x[i+1]+tx,y[i+1]+ty);  
else  
line(x[i]+tx,y[i]+ty,x[0]+tx,y[0]+ty);  
}  
}