#include<graphics.h>

#include<math.h>

#include<conio.h>

#include<stdio.h>

void main()

{

int x[4],y[4],i;

double put\_x,put\_y,t;

int gr=DETECT,gm;

initgraph(&gr,&gm,"C:\\TURBOC3\\BGI");

printf("\n\*\*\*\*\*\* Bezier Curve \*\*\*\*\*\*\*\*\*\*\*");

printf("\n Please enter x and y coordinates ");

for(i=0;i<4;i++)

{

scanf("%d%d",&x[i],&y[i]);

putpixel(x[i],y[i],3); // Control Points

}

for(t=0.0;t<=1.0;t=t+0.001) // t always lies between 0 and 1

{

put\_x = pow(1-t,3)\*x[0] + 3\*t\*pow(1-t,2)\*x[1] + 3\*t\*t\*(1-t)\*x[2] + pow(t,3)\*x[3]; // Formula to draw curve

put\_y = pow(1-t,3)\*y[0] + 3\*t\*pow(1-t,2)\*y[1] + 3\*t\*t\*(1-t)\*y[2] + pow(t,3)\*y[3];

putpixel(put\_x,put\_y, WHITE); // putting pixel

}

getch();

closegraph();

}