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**501254**

**I.T. – 5**

**Q. Draw Bezier curve**

#include <stdio.h>

#include <graphics.h>

#include <conio.h>

int gd,gm,maxx,maxy;

float xxx[1][2]={0.0,0.0,};

void line1(float x2,float y2)

{

int d1,d2,d3,d4;

d1=maxx\*xxx[0][0];

d2=maxy\*xxx[0][1];

d3=maxx\*x2;

d4=maxy\*y2;

line(d1,d2,d3,d4);

xxx[0][0]=x2;

xxx[0][1]=y2;

}

bezier(float xb,float yb,float xc,float yc,float xd,float yd,int n)

{

float xab,yab,xbc,ybc,xcd,ycd;

float xabc,yabc,xbcd,ybcd;

float xabcd,yabcd;

if (n==0)

{

line1(xb,yb);

line1(xc,yc);

line1(xd,yd);

}

else

{

xab = (xxx[0][0]+xb)/2;yab = (xxx[0][1]+yb)/2;

xbc = (xb+xc)/2;ybc = (yb+yc)/2;

xcd = (xc+xd)/2;ycd = (yc+yd)/2;

xabc = (xab+xbc)/2;yabc = (yab+ybc)/2;

xbcd = (xbc+xcd)/2;ybcd = (ybc+ycd)/2;

xabcd = (xabc+xbcd)/2;yabcd = (yabc+ybcd)/2;

n=n-1;

bezier(xab,yab,xabc,yabc,xabcd,yabcd,n);

bezier(xbcd,ybcd,xcd,ycd,xd,yd,n);

}

return (0);

}

void igraph()

{

detectgraph(&gd,&gm);

if(gd<0)

{

puts("CANNOT DETECT A GRAPHICS CARD");

exit(1);

}

initgraph(&gd,&gm,"C:\\Turboc3\\BGI");

}

main()

{

igraph();

maxx = getmaxx();

maxy = getmaxy();

setcolor(2);

bezier(0.85,0.75,0.57,0.78,0.534,0.9,4);

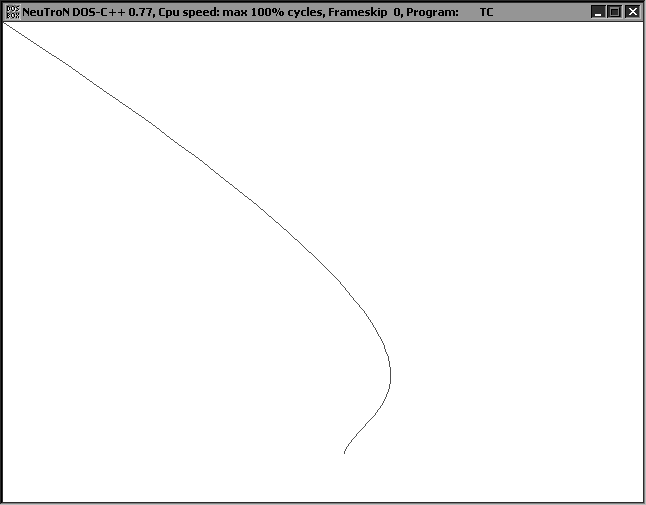
setfillstyle(2,2);

getch();

closegraph();

return(0);

}

****