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#include <stdio.h>
#include <stdlib.h>
#include <graphics.h>
#include <math.h>
void bezier (int x[4], int y[4])
{
    int gd = DETECT, gm;
    int i;
    double t;
    initgraph (&gd, &gm, "C:\\\\TurboC3\\\\BGI");
    for (t = 0.0; t < 1.0; t += 0.0005)
    {
        double xt = pow (1-t, 3) * x[0] + 3 * t * pow (1-t, 2) * x[1] +
        3 * pow (t, 2) * (1-t) * x[2] + pow (t, 3) * x[3];
        double yt = pow (1-t, 3) * y[0] + 3 * t * pow (1-t, 2) * y[1] +
        3 * pow (t, 2) * (1-t) * y[2] + pow (t, 3) * y[3];
        putpixel (xt, yt, WHITE);
    }
    for (i=0; i<4; i++)
        putpixel (x[i], y[i], YELLOW);
    getch();
    closegraph();
    return;
}

void main()
{
    int x[4], y[4];
    int i;
    printf ("Enter the x- and y-coordinates of the four control points.\n");
    for (i=0; i<4; i++)
        scanf ("%d%d", &x[i], &y[i]);
    bezier (x, y);
}

```

