

```

#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();
}

```

```

windows xp [Running] - Oracle VM VirtualBox
***** Bezier Curve *****
Please enter x and y coordinates 200 300
300 400
200 200
100 200

```

