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**EXPERIMENT NO. 9**

**CODE:**

#include<stdio.h>

#include<conio.h>

#include<graphics.h>

#include<math.h>

int fact(int n) {

if(n == 1 || n == 0)

return 1;

else

return (n\*fact(n-1));

}

void main() {

clrscr();

int x[100], y[100], n;

int gd=DETECT, gm;

float u, Px, Py;

initgraph(&gd, &gm, "");

line(0, 240, 640, 240);

line(320, 0, 320, 480);

printf("Enter no.of points");

scanf("%d", &n);

printf("Enter x and y co-ordinates");

for(int i=0; i<n; i++) {

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

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

}

for (u=0.1; u<1; u+=0.0001) {

Px = 0;

Py = 0;

for(int i=0; i<n; i++) {

int factorial = fact(n-1)/(fact(n-1-i)\*fact(i));

Px += factorial\*pow(1-u, n-1-i)\*pow(u, i)\*x[i];

Py += factorial\*pow(1-u, n-1-i)\*pow(u, i)\*y[i];

}

putpixel(Px, Py, WHITE);

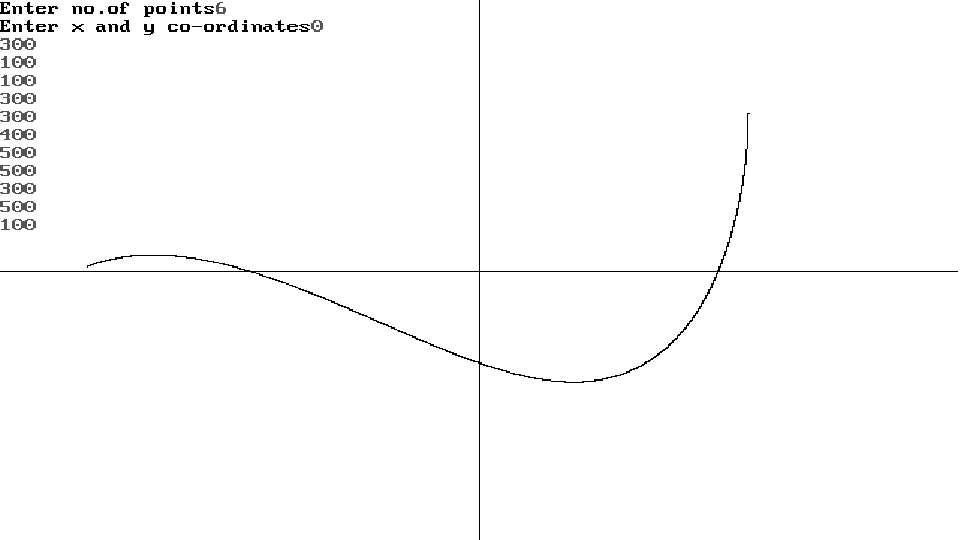
}

getch();

closegraph();

}

**OUTPUT:**

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