```
//2D-tranformation Rotation

#include<graphics.h>

#include<stdio.h>

#include<conio.h>

#include<math.h>

void main()

{

int gd=DETECT,gm;

int pivot_x,pivot_y,x,y;

double degree,radian;

int rotated_point_x,rotated_point_y;

initgraph(&gd,&gm,"C://TURBOC3//BGI");

cleardevice();

printf("\t\t********** ROTATION ********** \n");

printf("\n Enter an initial coordinates of the line = ");

scanf("%d %d",&pivot_x,&pivot_y);

printf("\n Enter a final coordinates of the line = ");

scanf("%d %d",&x,&y);

line(pivot_x,pivot_y,x,y);

printf("\n\n Now, Enter a degree = ");

scanf("%lf",&degree);

radian=degree*0.01745;

rotated_point_x=(int)(pivot_x +((x-pivot_x)*cos(radian)-(y-pivot_y)*sin(radian)));

rotated_point_y=(int)(pivot_y +((x-pivot_x)*sin(radian)+(y-pivot_y)*cos(radian)));

setcolor(RED);
```

```
line(pivot_x,pivot_y,rotated_point_x,rotated_point_y);

getch();

closegraph();

}
```

OUTPUT:-