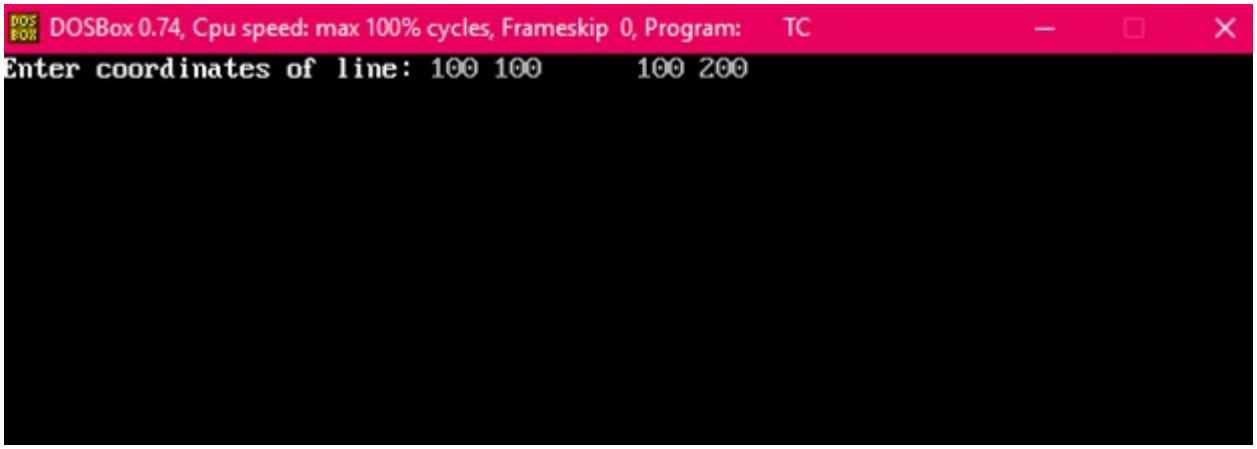
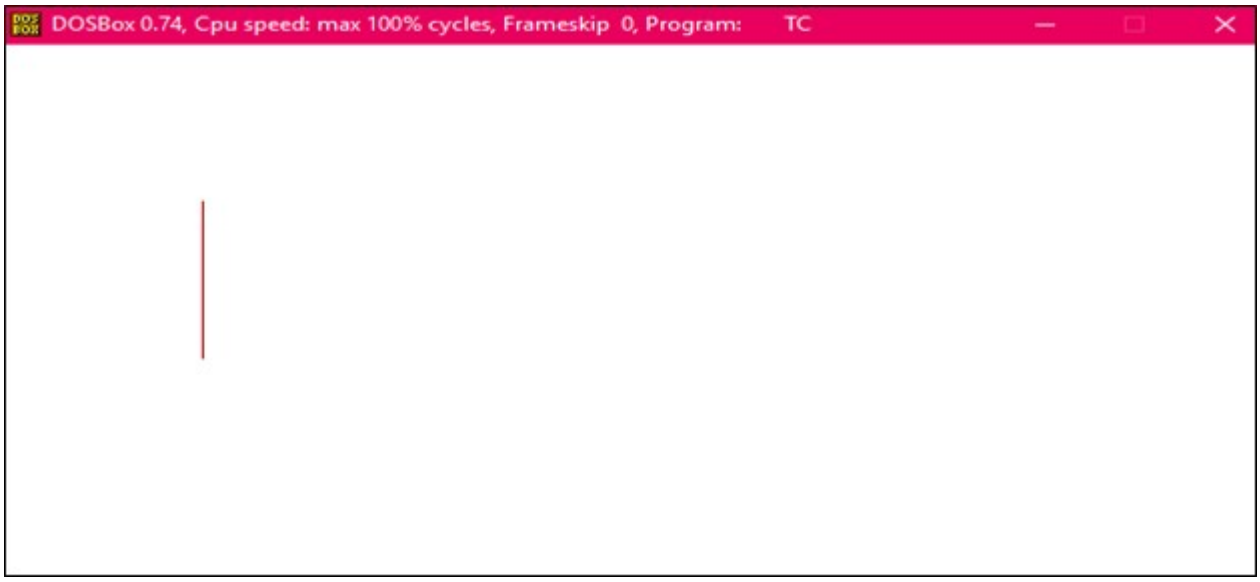
Program to rotate a line:

```
#include<stdio.h>
#include<graphics.h>
#include<math.h>
int main()
{
   intgd=0,gm,x1,y1,x2,y2;
   double s,c, angle;
   initgraph(&gd, &gm, "C:\\TC\\BGI");
   setcolor(RED);
   printf("Enter coordinates of line: ");
   scanf("%d%d%d%d",&x1,&y1,&x2,&y2);
   cleardevice();
   setbkcolor(WHITE);
   line(x1,y1,x2,y2);
   getch();
   setbkcolor(BLACK);
   printf("Enter rotation angle: ");
   scanf("%lf", &angle);
   setbkcolor(WHITE);
   c = cos(angle *3.14/180);
   s = sin(angle *3.14/180);
   x1 = floor(x1 * c + y1 * s);
   y1 = floor(-x1 * s + y1 * c);
   x2 = floor(x2 * c + y2 * s);
   y2 = floor(-x2 * s + y2 * c);
   cleardevice();
   line(x1, y1 ,x2, y2);
   getch();
   closegraph();
return 0;
}
```

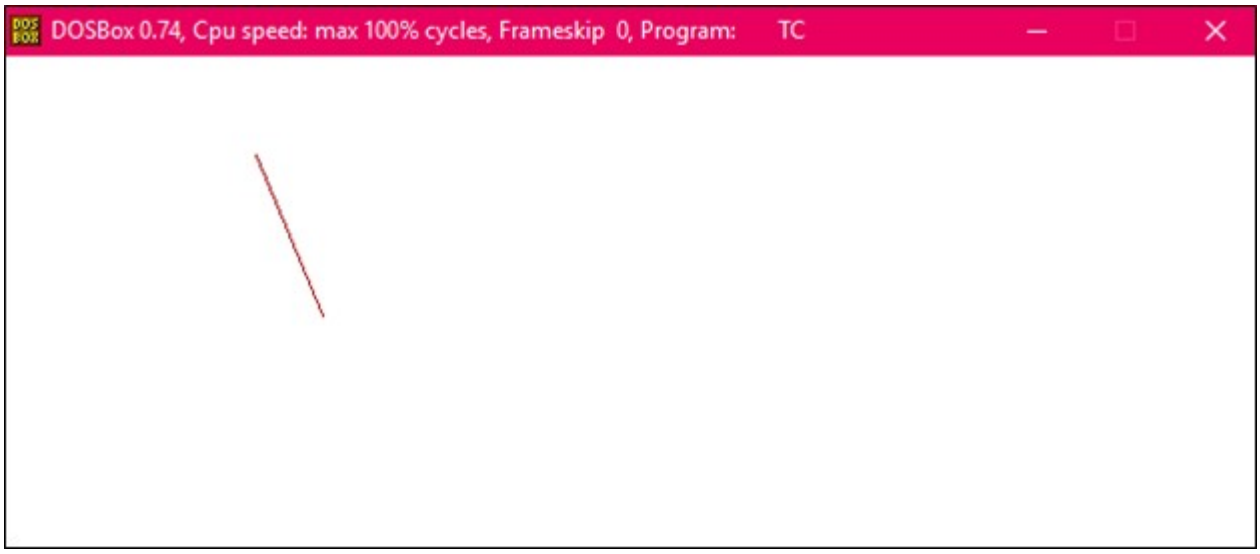
Output:

Before rotation





After rotation


DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC