Name: Chavda Mamta Maheshbhai

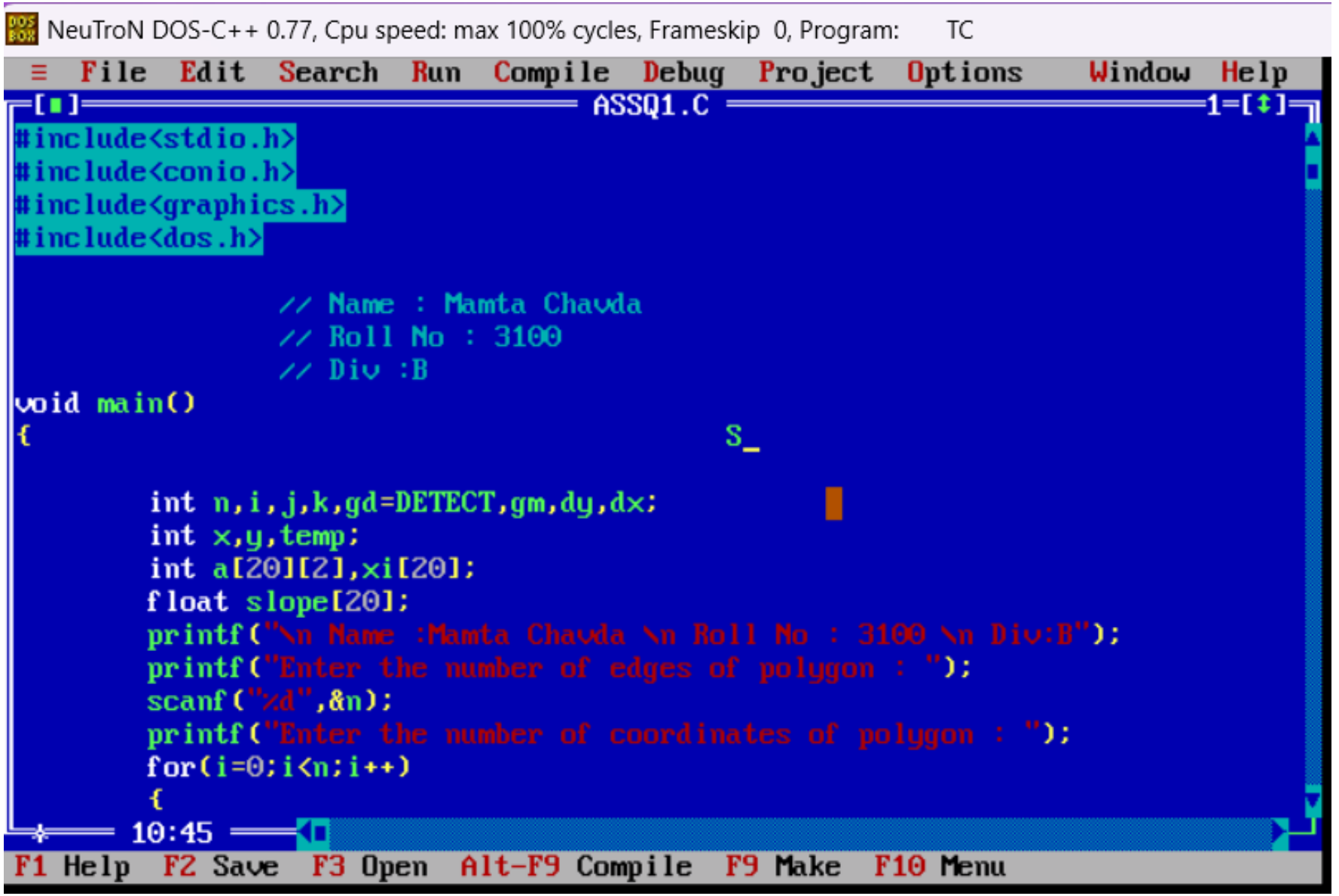
TYMSC

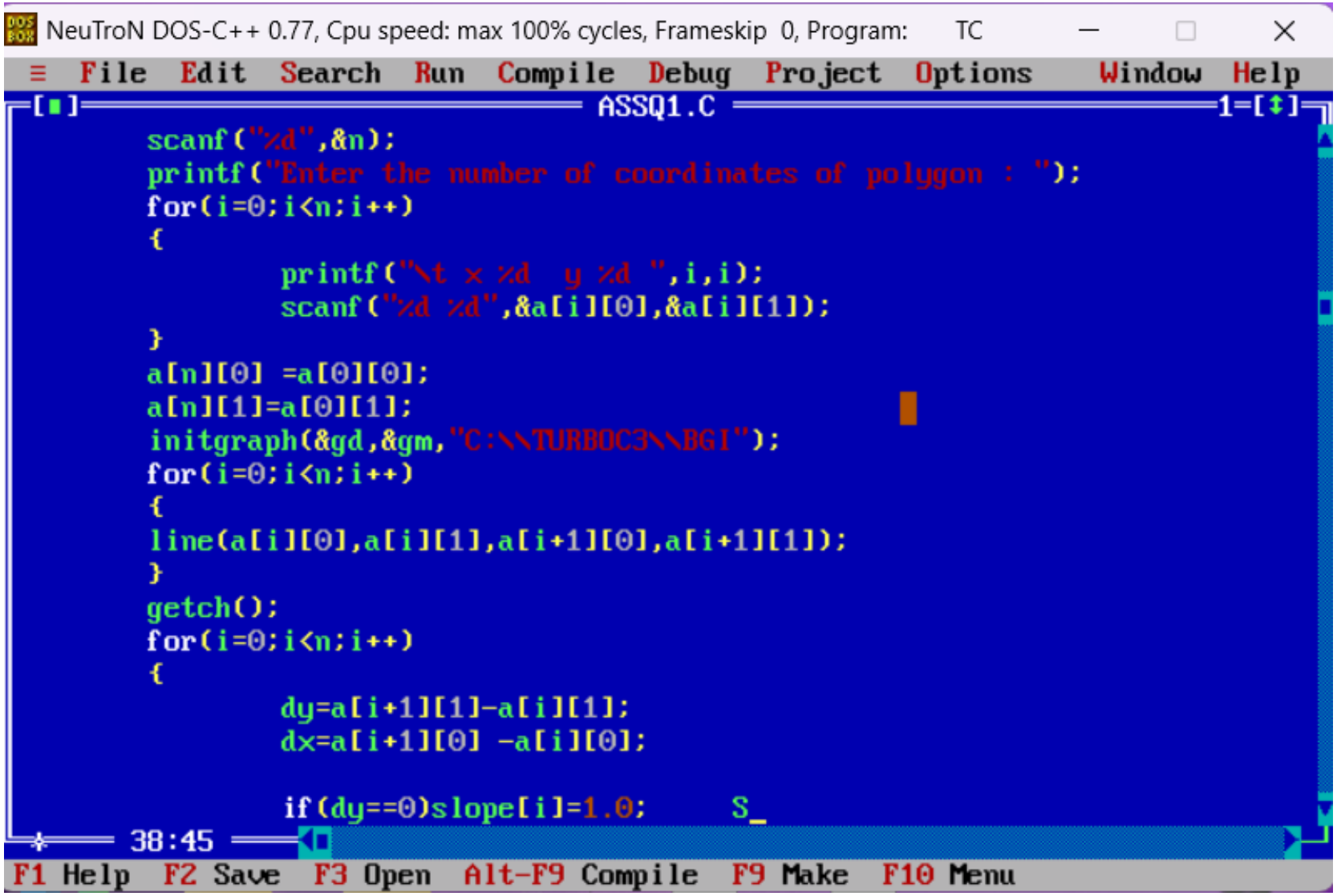
Sub: computer Graphics

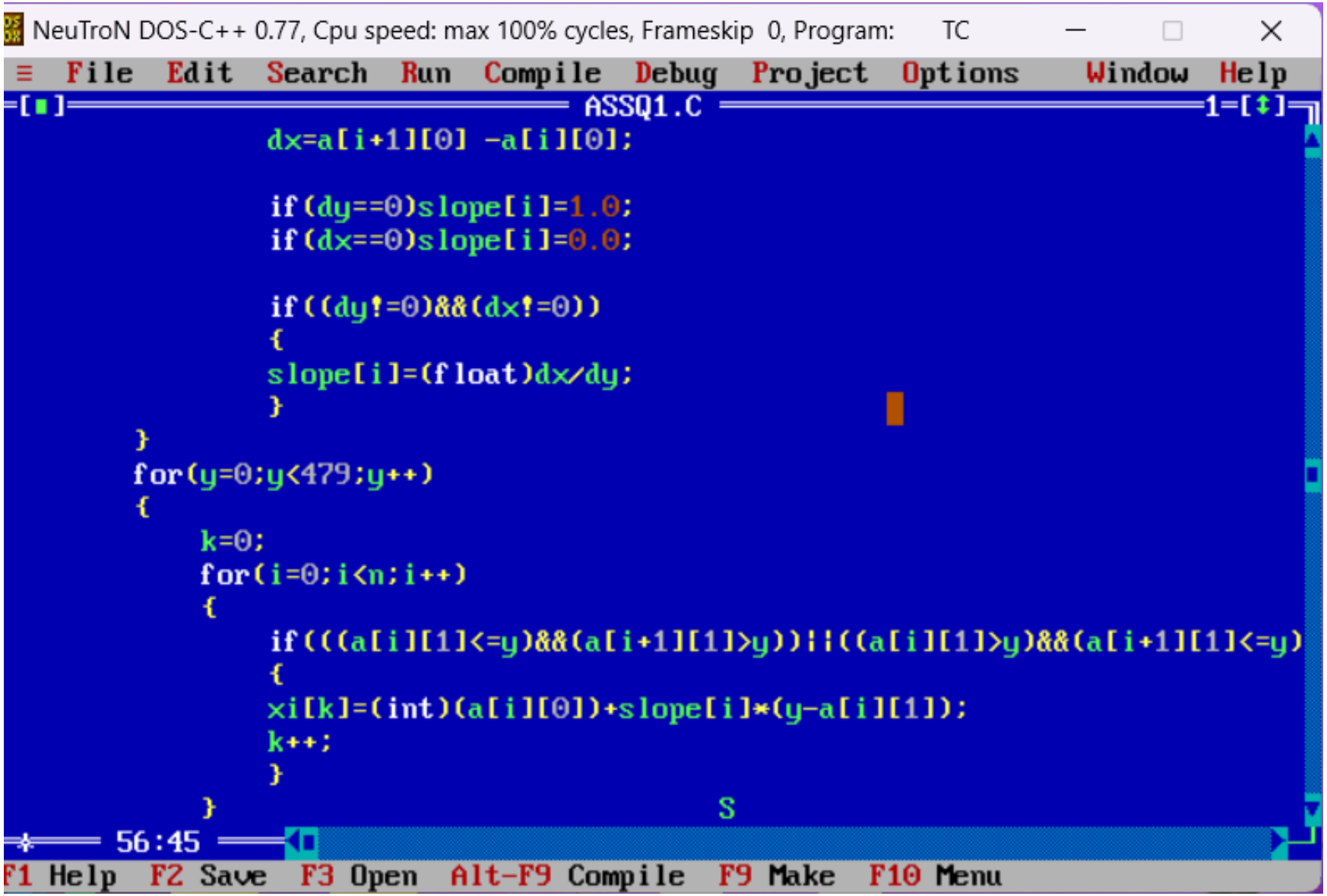
Div:B

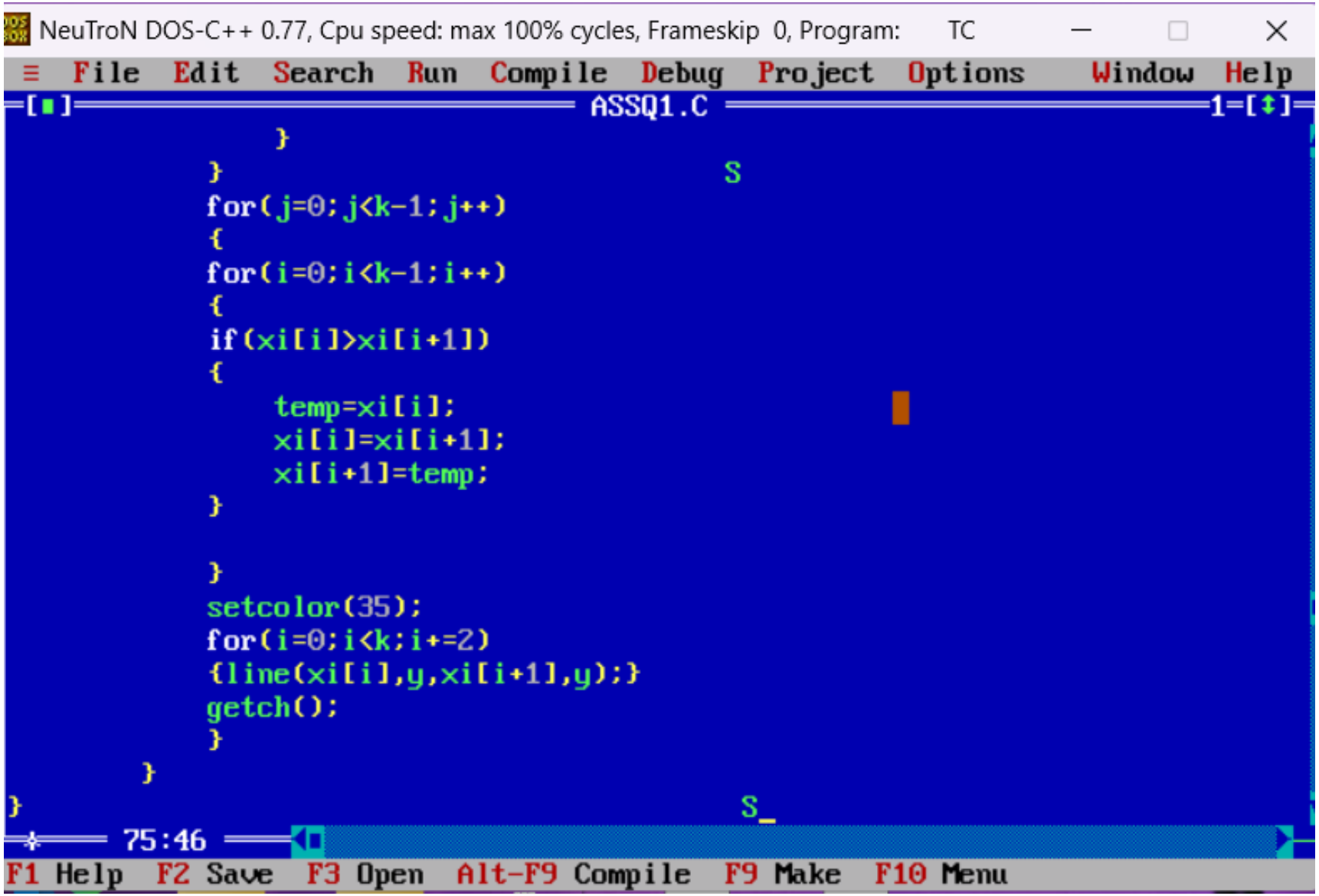
Assignment:3

q.1

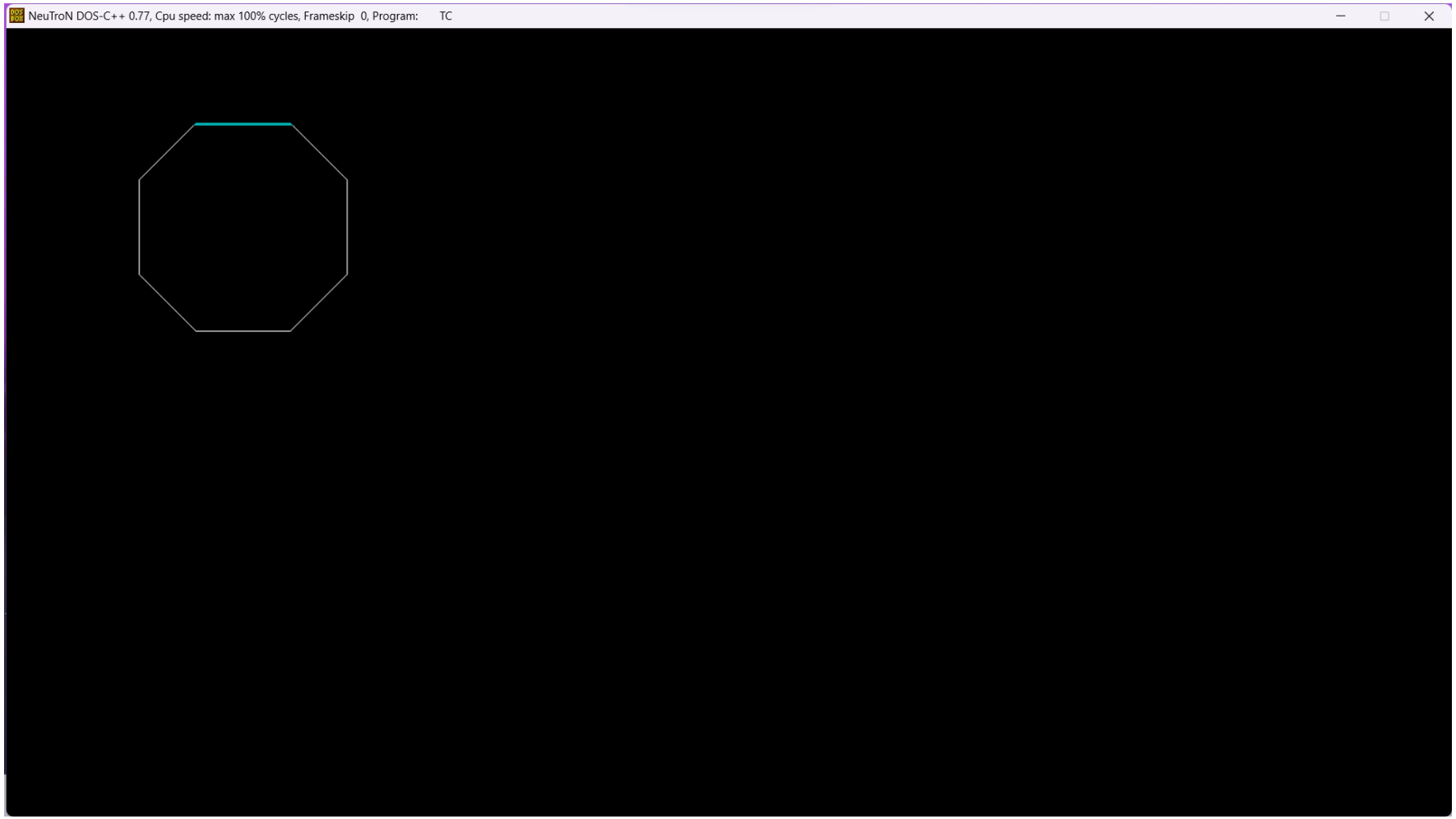

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ1.C
#include<stdio.h>
#include<conio.h>
#include<graphics.h>
#include<dos.h>
// Name : Mamta Chavda
// Roll No : 3100
// Div :B
void main()
{
int n,i,j,k,gd=DETECT,gm,dy,dx;
int x,y,temp;
int a[20][2],xi[20];
float slope[20];
printf("\n Name :Mamta Chavda \n Roll No : 3100 \n Div:B");
printf("Enter the number of edges of polygon : ");
scanf("%d",&n);
printf("Enter the number of coordinates of polygon : ");
for(i=0;i<n;i++)
{
10:45
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

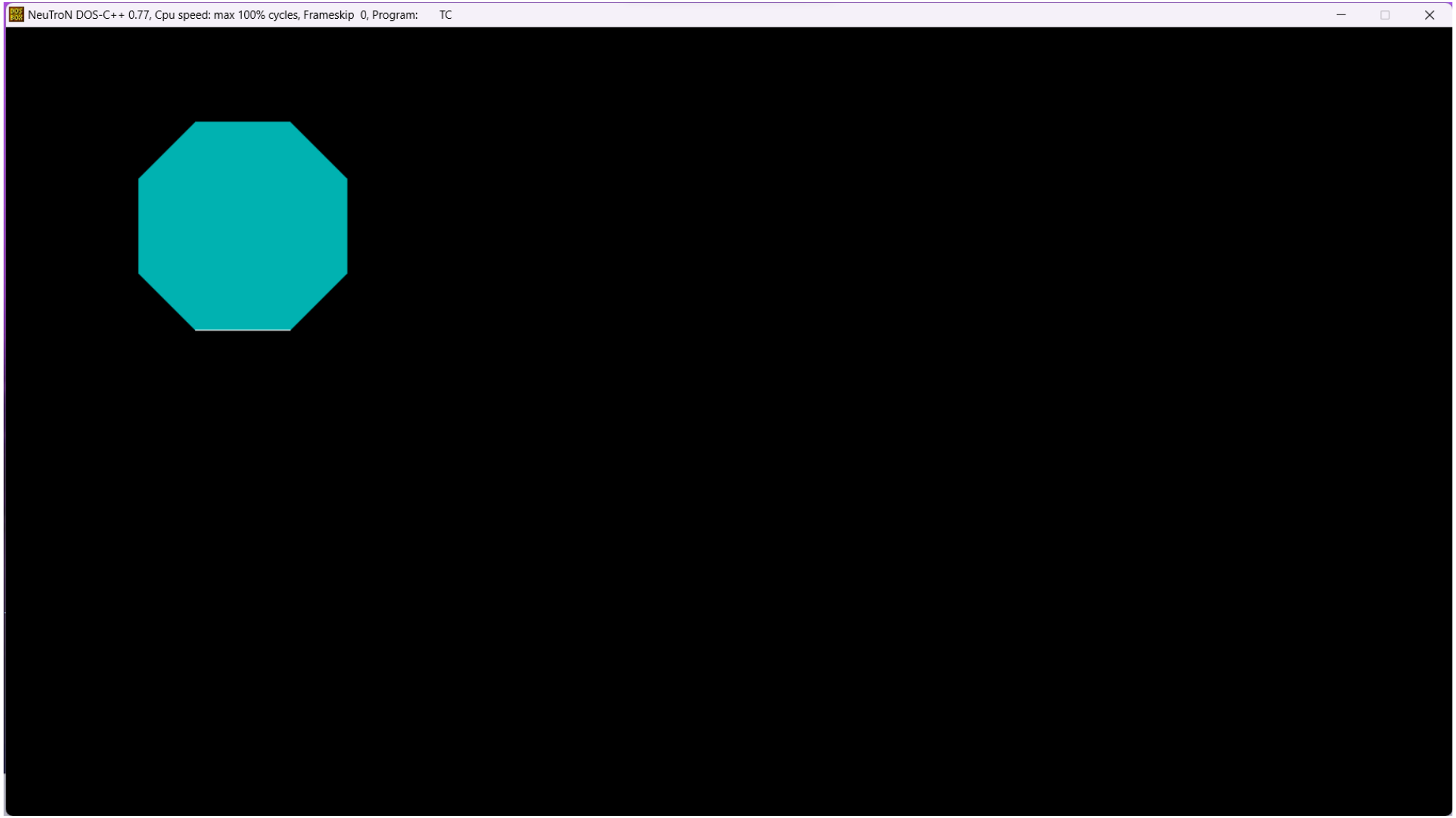

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ1.C
scanf("%d",&n);
printf("Enter the number of coordinates of polygon : ");
for(i=0;i<n;i++)
{
printf("\t x %d y %d ",i,i);
scanf("%d %d",&a[i][0],&a[i][1]);
}
a[n][0] =a[0][0];
a[n][1]=a[0][1];
initgraph(&gd,&gm,"C:\\TURBOC3\\BGI");
for(i=0;i<n;i++)
{
line(a[i][0],a[i][1],a[i+1][0],a[i+1][1]);
}
getch();
for(i=0;i<n;i++)
{
dy=a[i+1][1]-a[i][1];
dx=a[i+1][0] -a[i][0];
if(dy==0)slope[i]=1.0;
38:45
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ1.C
dx=a[i+1][0] -a[i][0];
if(dy==0)slope[i]=1.0;
if(dx==0)slope[i]=0.0;
if((dy!=0)&&(dx!=0))
{
slope[i]=(float)dx/dy;
}
}
for(y=0;y<479;y++)
{
k=0;
for(i=0;i<n;i++)
{
if(((a[i][1]<=y)&&(a[i+1][1]>y))||((a[i][1]>y)&&(a[i+1][1]<=y)
{
xi[k]=(int)(a[i][0])+slope[i]*(y-a[i][1]);
k++;
}
}
S
56:45
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

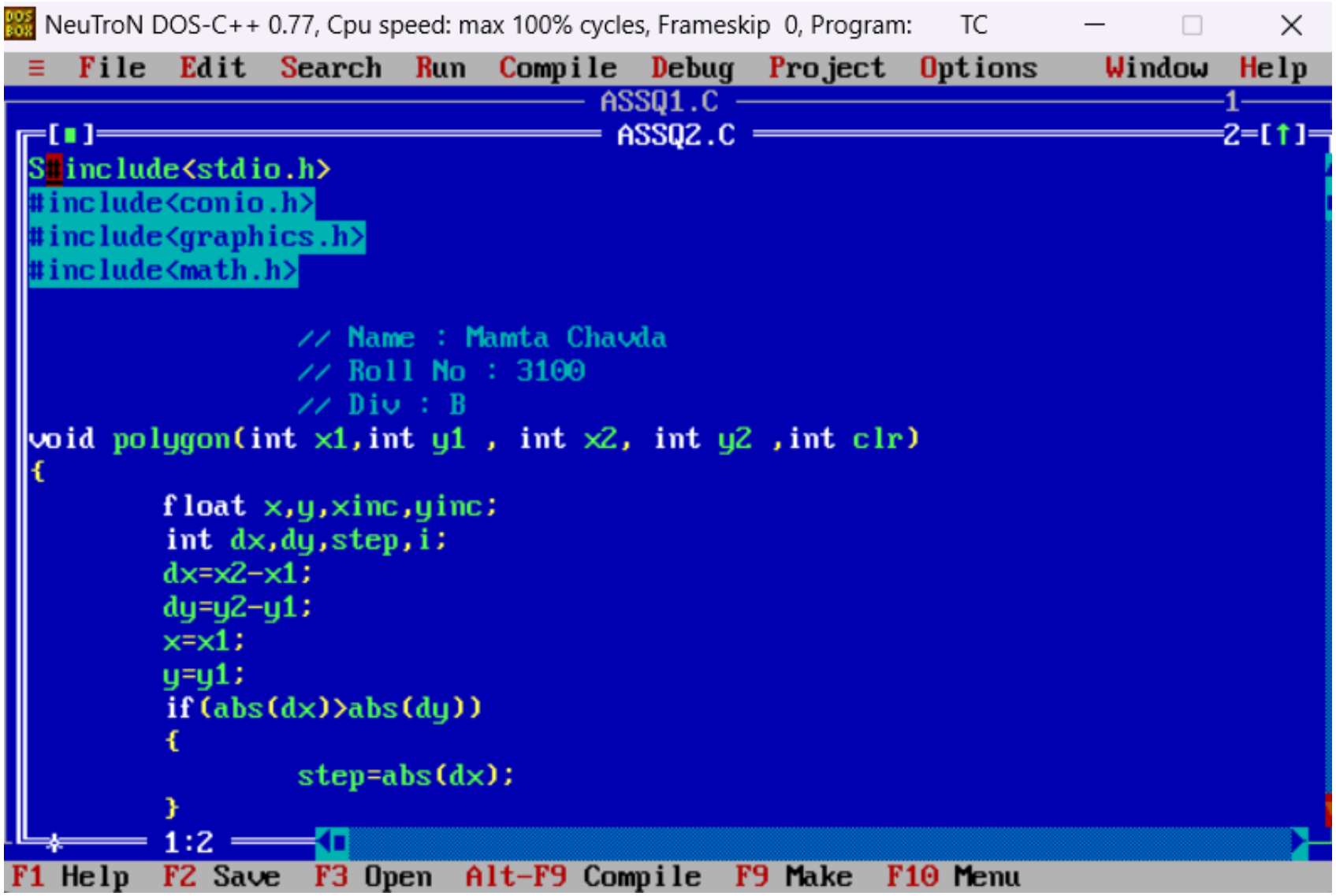

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ1.C
}
}
for(j=0;j<k-1;j++)
{
for(i=0;i<k-1;i++)
{
if(xi[i]>xi[i+1])
{
temp=xi[i];
xi[i]=xi[i+1];
xi[i+1]=temp;
}
}
setcolor(35);
for(i=0;i<k;i+=2)
{line(xi[i],y,xi[i+1],y);}
getch();
}
}
75:46
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

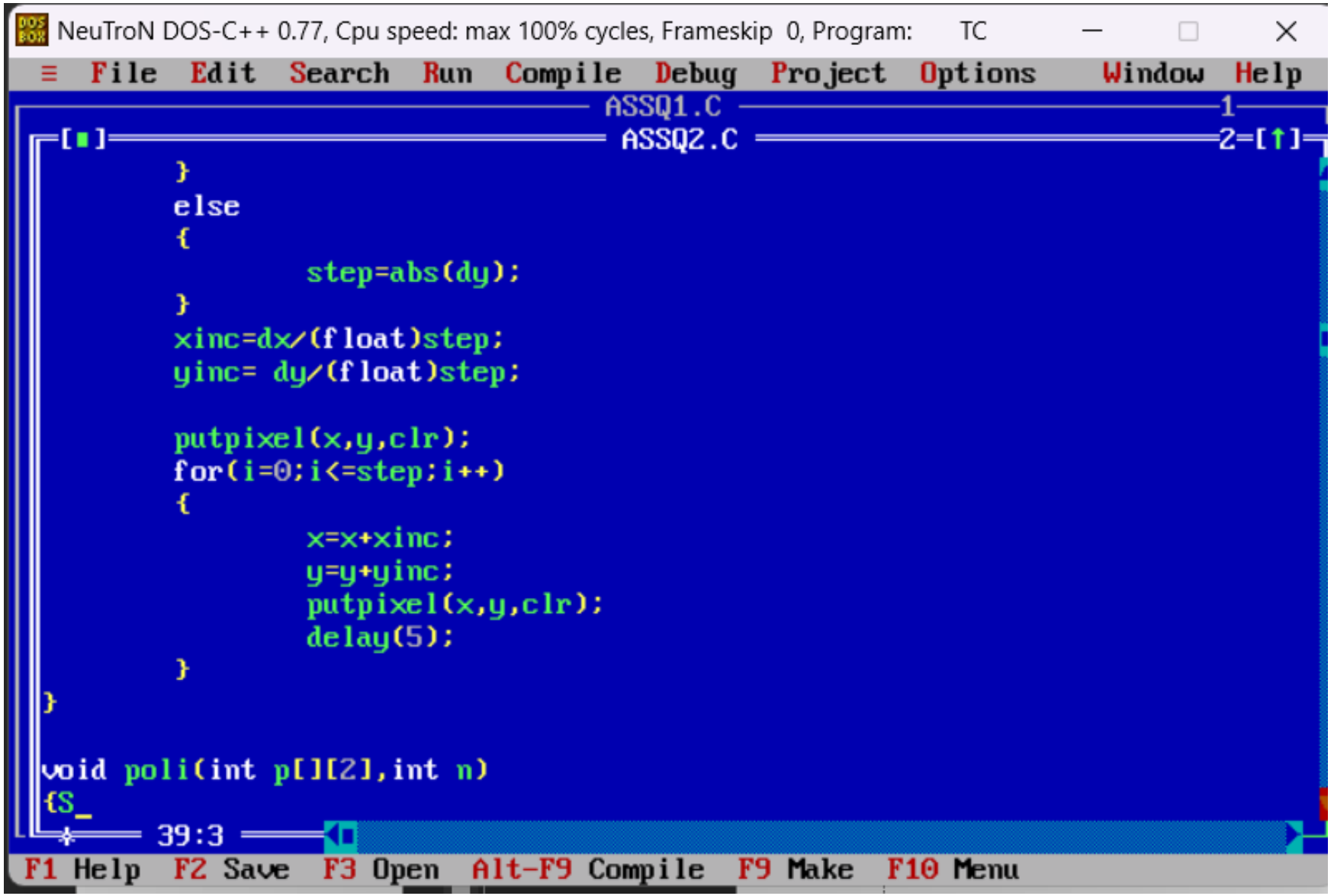
Output:

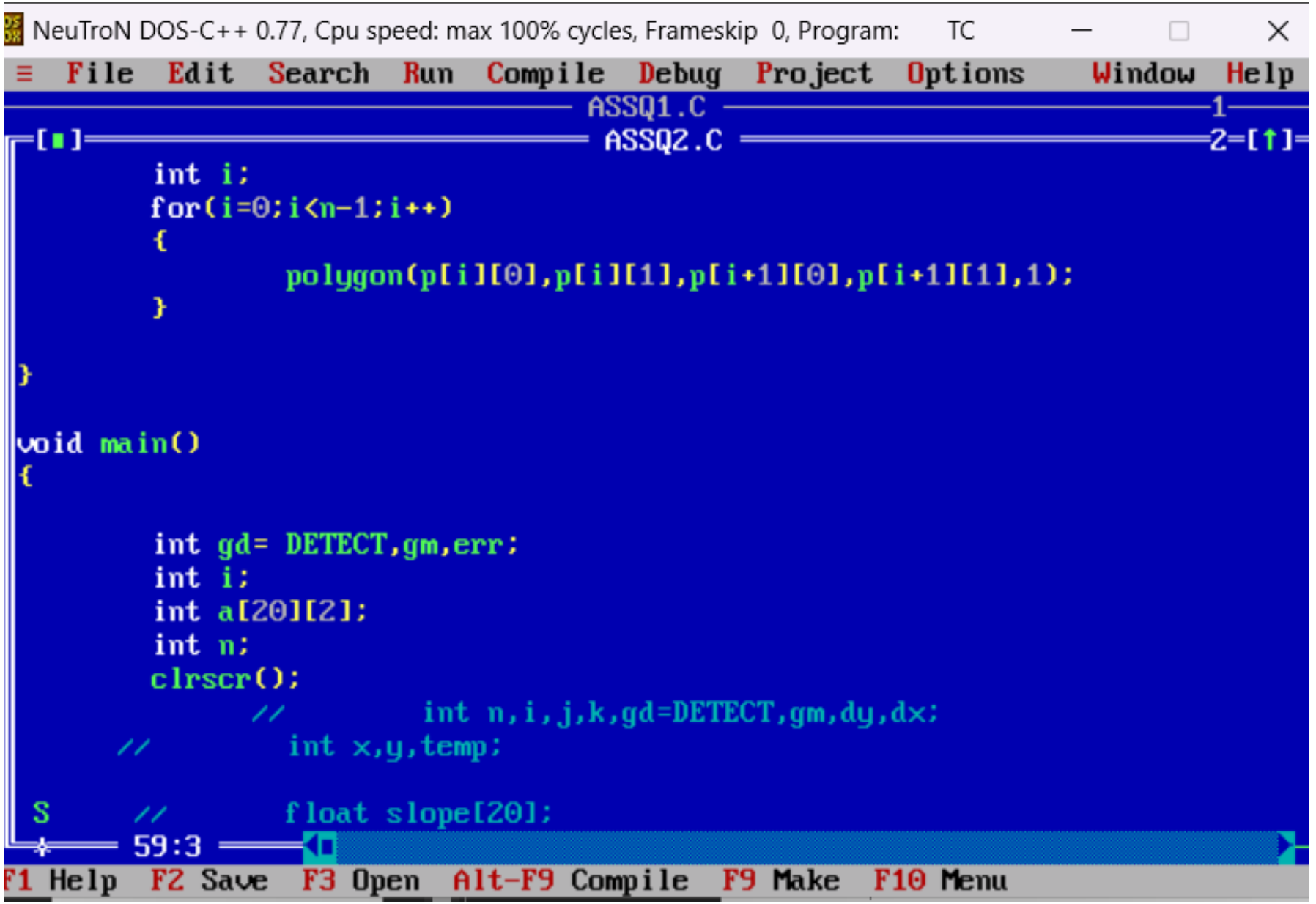

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

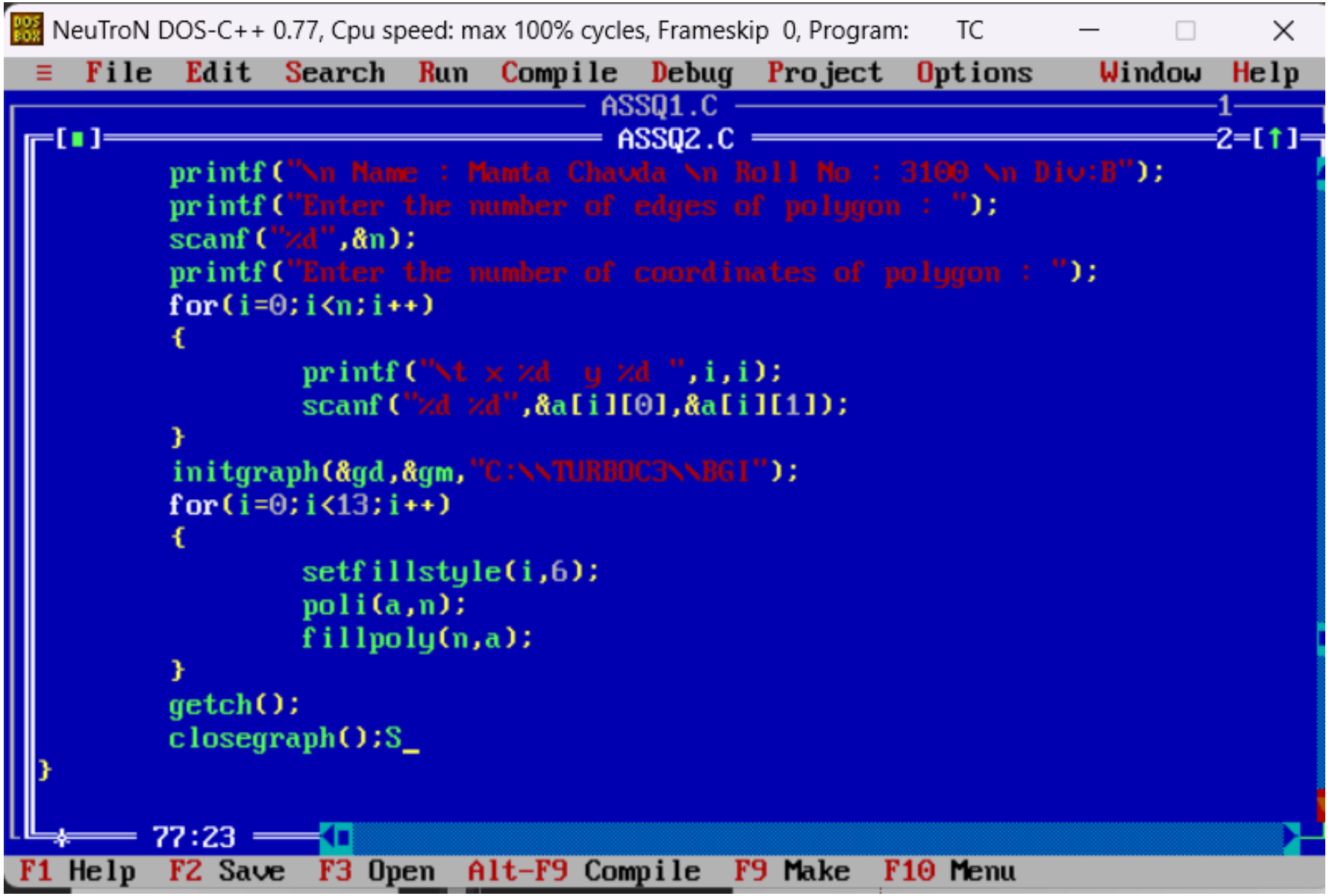

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

Q2

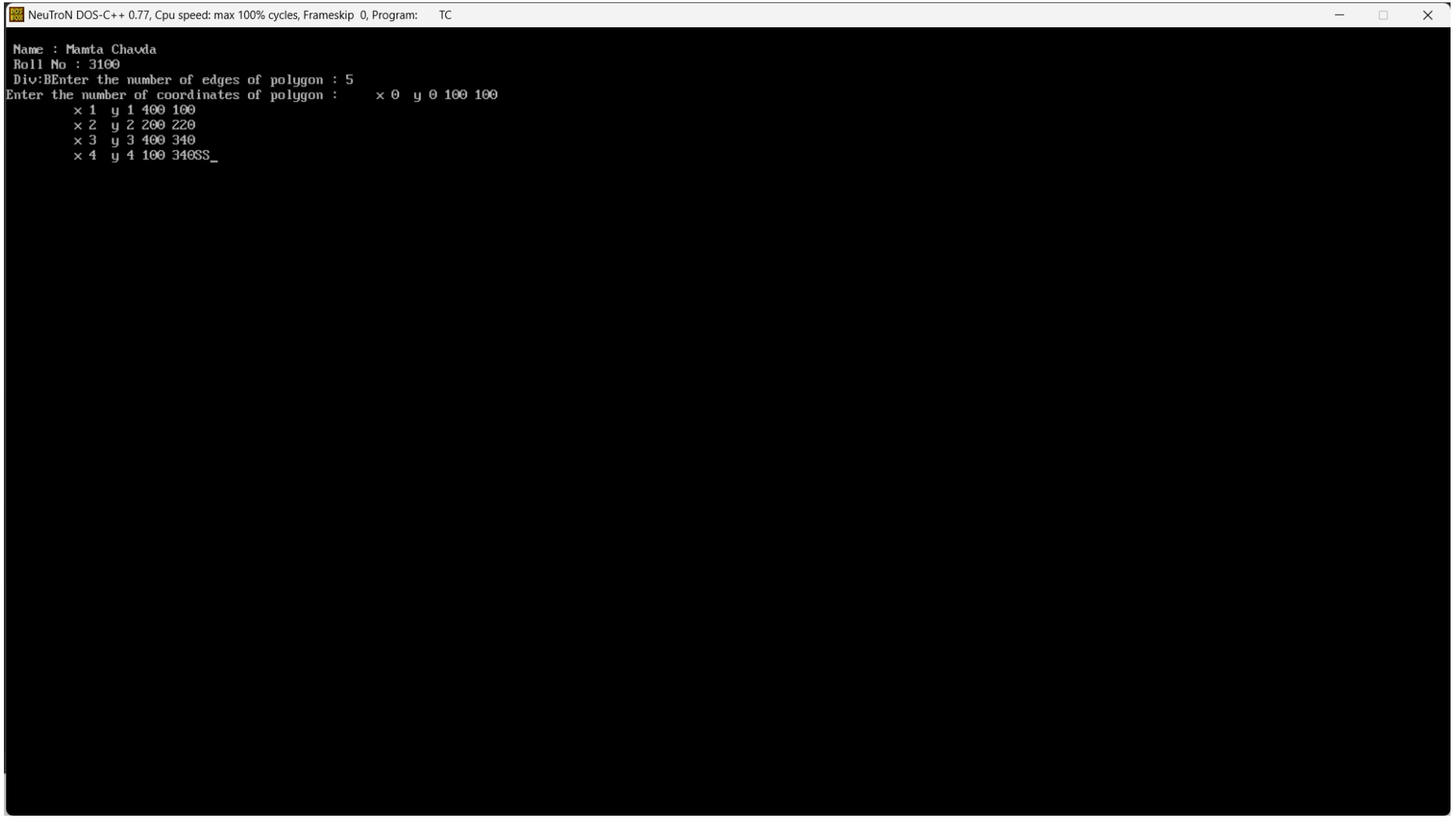

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ1.C 1
ASSQ2.C 2
S#include<stdio.h>
#include<conio.h>
#include<graphics.h>
#include<math.h>
// Name : Mamta Chavda
// Roll No : 3100
// Div : B
void polygon(int x1,int y1 , int x2, int y2 ,int clr)
{
float x,y,xinc,yinc;
int dx,dy,step,i;
dx=x2-x1;
dy=y2-y1;
x=x1;
y=y1;
if(abs(dx)>abs(dy))
{
step=abs(dx);
}
1:2
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

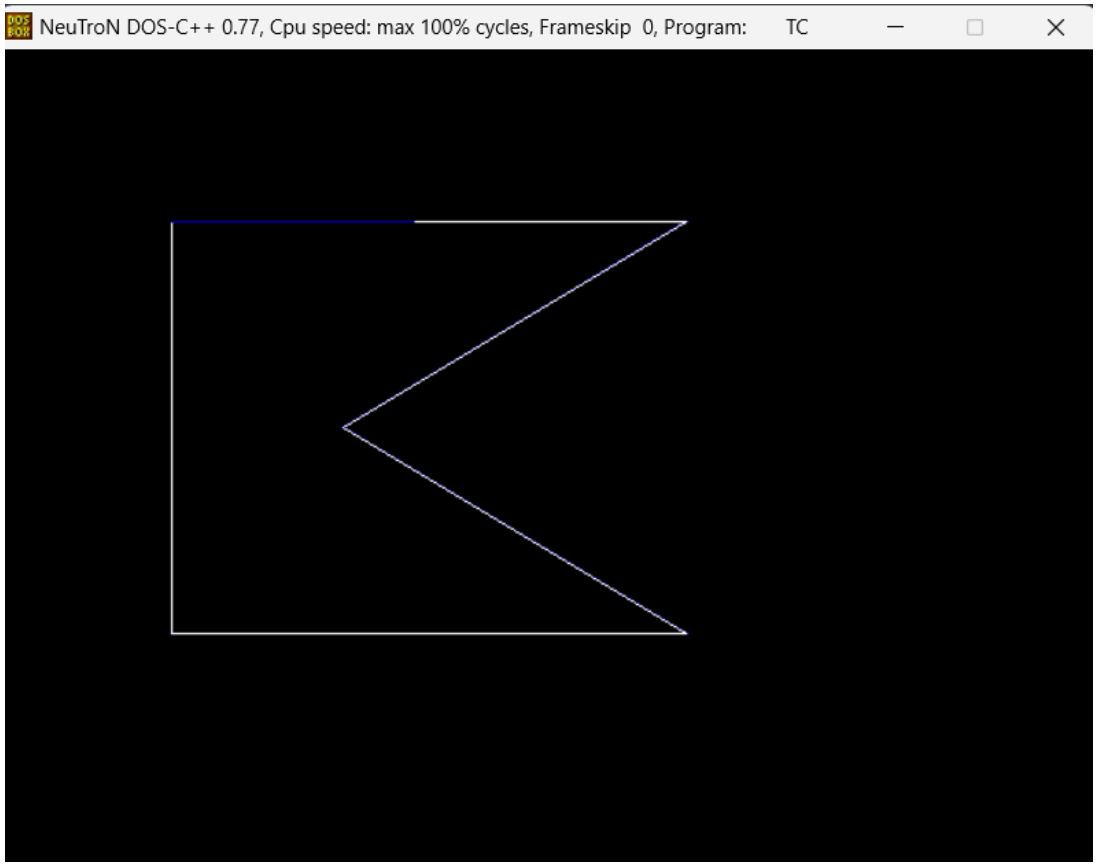

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ1.C
ASSQ2.C
}
else
{
step=abs(dy);
}
xinc=dx/(float)step;
yinc= dy/(float)step;
putpixel(x,y,clr);
for(i=0;i<=step;i++)
{
x=x+xinc;
y=y+yinc;
putpixel(x,y,clr);
delay(5);
}
}
void poli(int p[][2],int n)
{S_
39:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

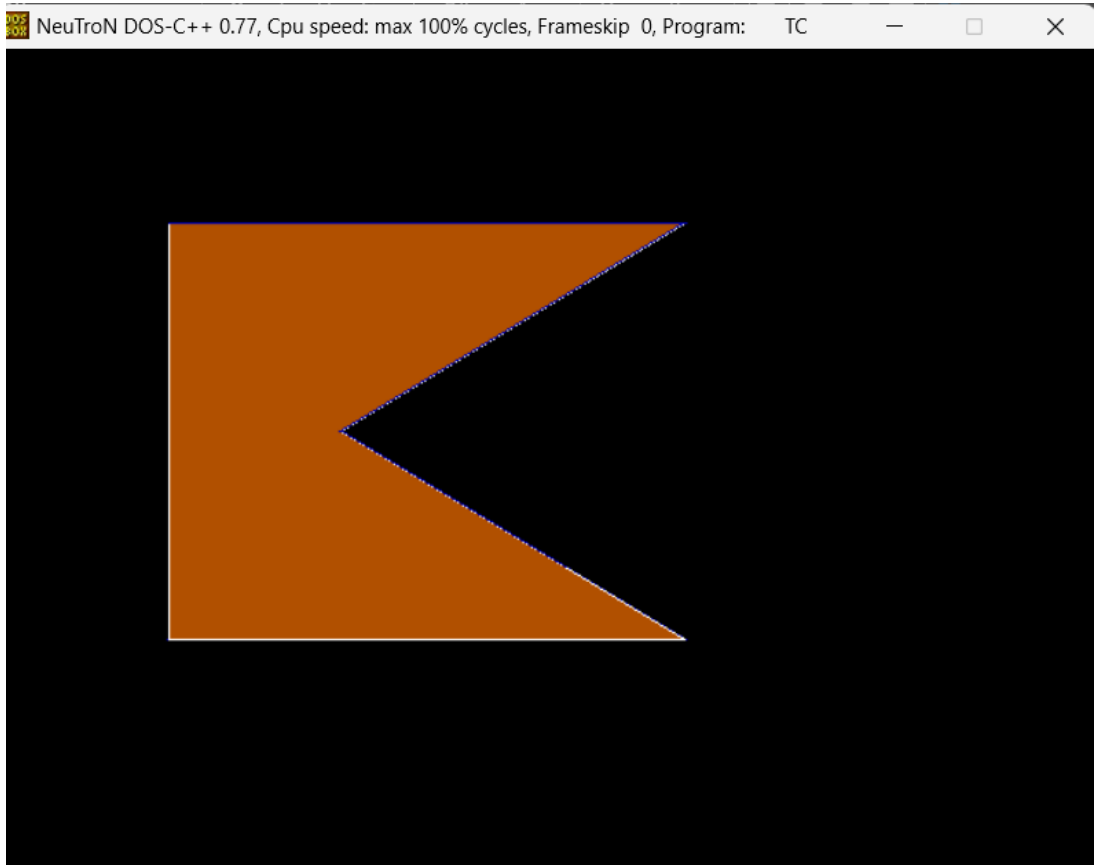

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ1.C
ASSQ2.C
int i;
for(i=0;i<n-1;i++)
{
polygon(p[i][0],p[i][1],p[i+1][0],p[i+1][1],1);
}
}
void main()
{
int gd= DETECT,gm,err;
int i;
int a[20][2];
int n;
clrscr();
// int n,i,j,k,gd=DETECT,gm,dy,dx;
// int x,y,temp;
// float slope[20];
59:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

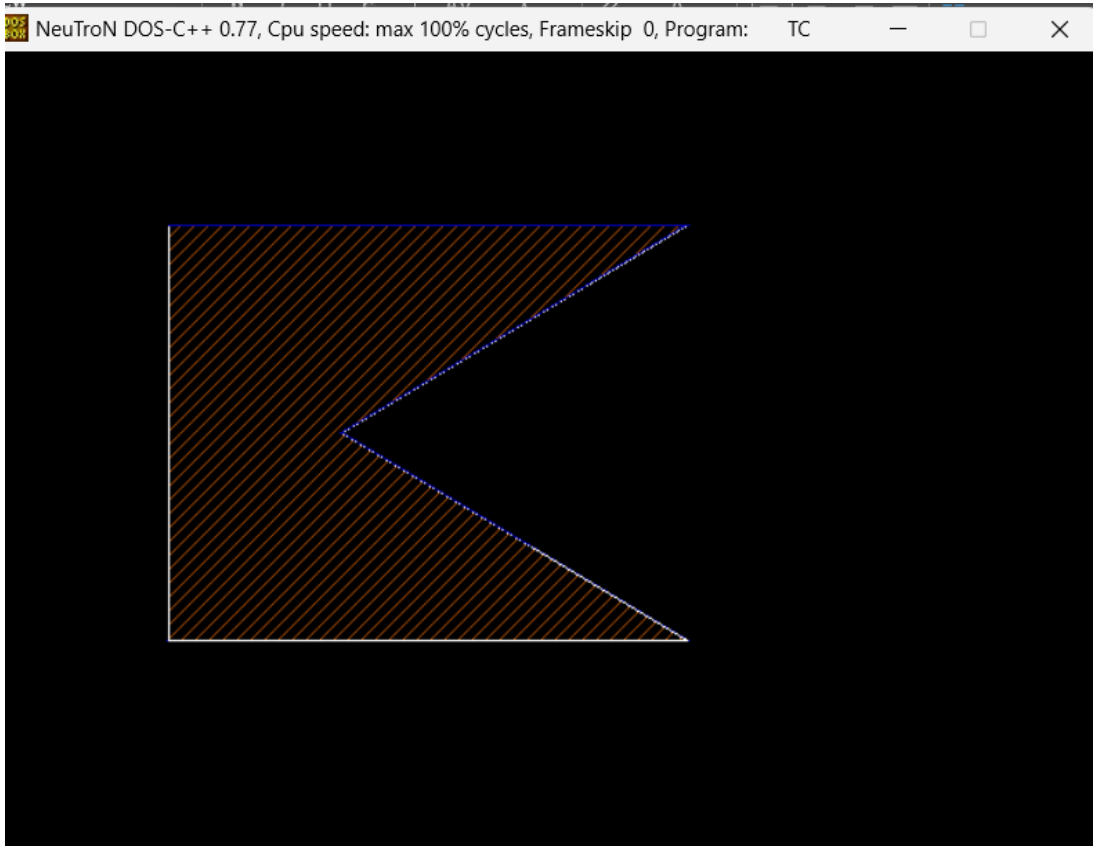

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ1.C
ASSQ2.C
printf("\n Name : Mamta Chavda \n Roll No : 3100 \n Div:B");
printf("Enter the number of edges of polygon : ");
scanf("%d",&n);
printf("Enter the number of coordinates of polygon : ");
for(i=0;i<n;i++)
{
printf("\t x %d y %d ",i,i);
scanf("%d %d",&a[i][0],&a[i][1]);
}
initgraph(&gd,&gm,"C:\\TURBOC3\\BGI");
for(i=0;i<13;i++)
{
setfillstyle(i,6);
poli(a,n);
fillpoly(n,a);
}
getch();
closegraph();S_
}
77:23
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

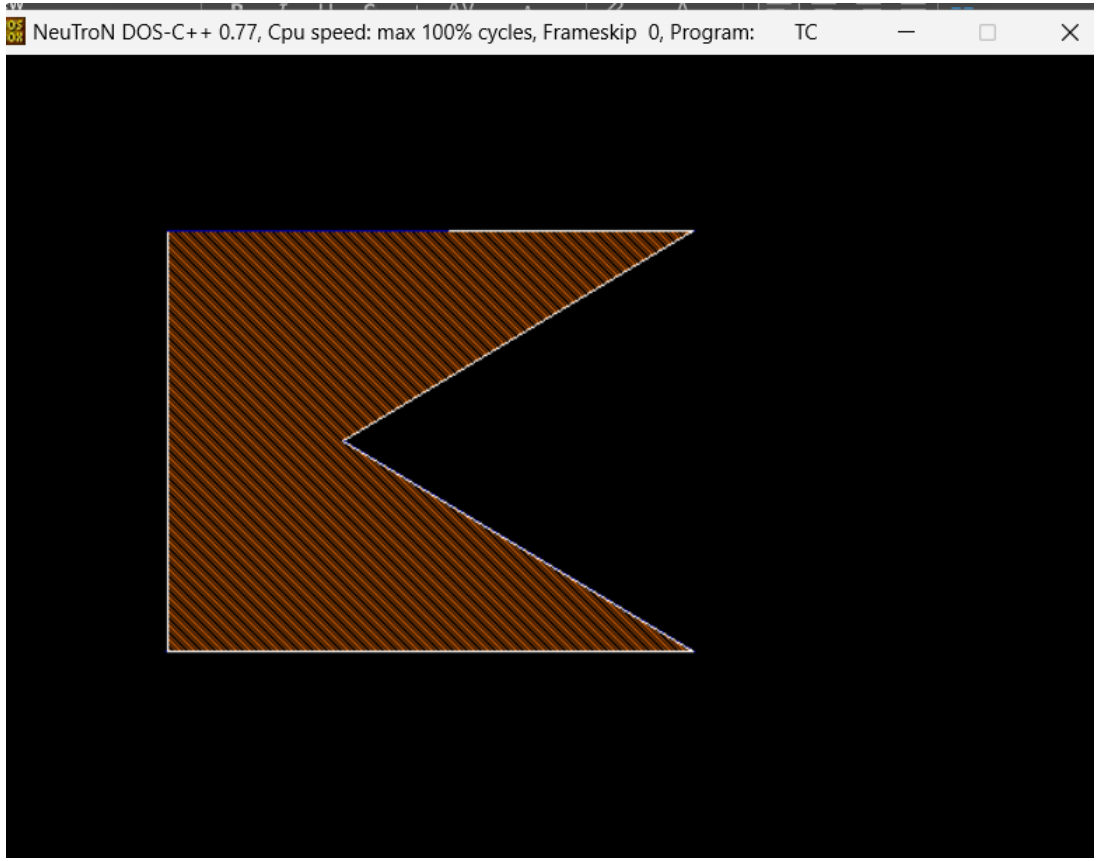
Output:

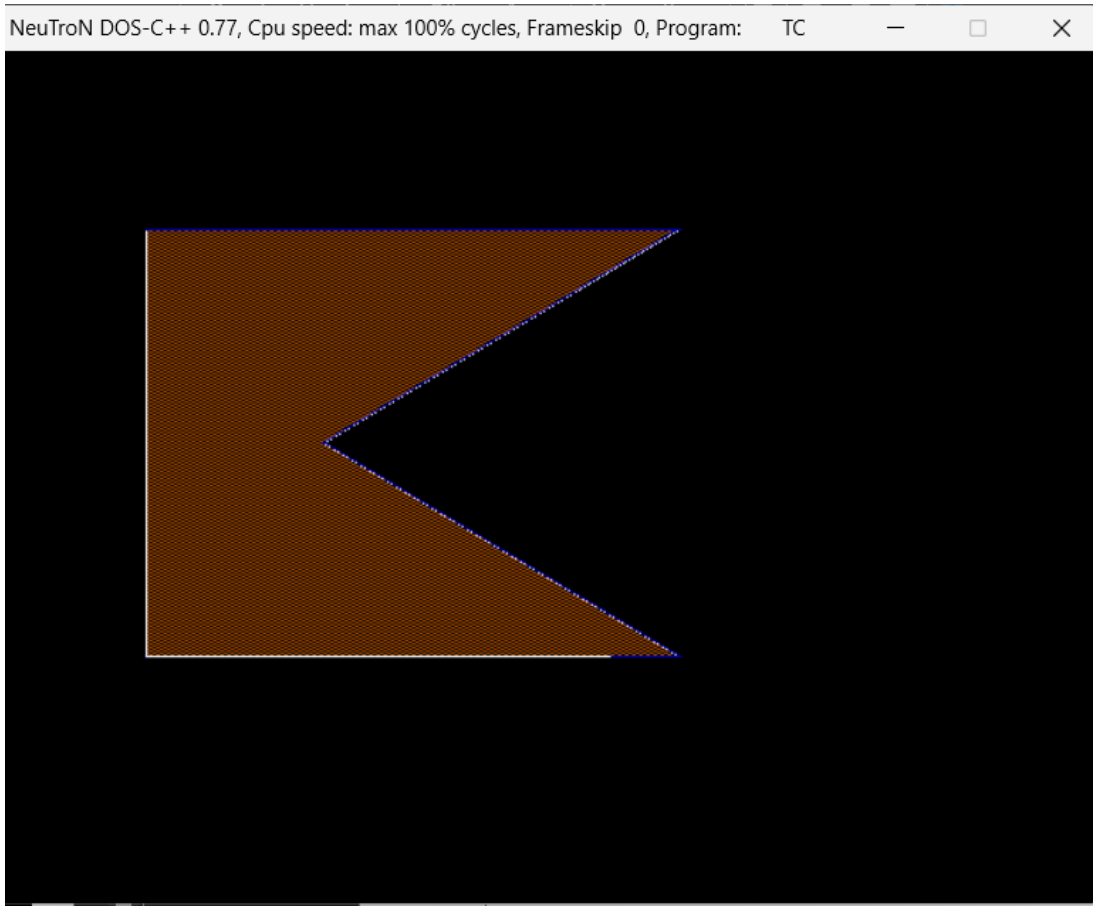

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
Name : Mamta Chavda
Roll No : 3100
Div:BEnter the number of edges of polygon : 5
Enter the number of coordinates of polygon : x 0 y 0 100 100
x 1 y 1 400 100
x 2 y 2 200 220
x 3 y 3 400 340
x 4 y 4 100 340SS_

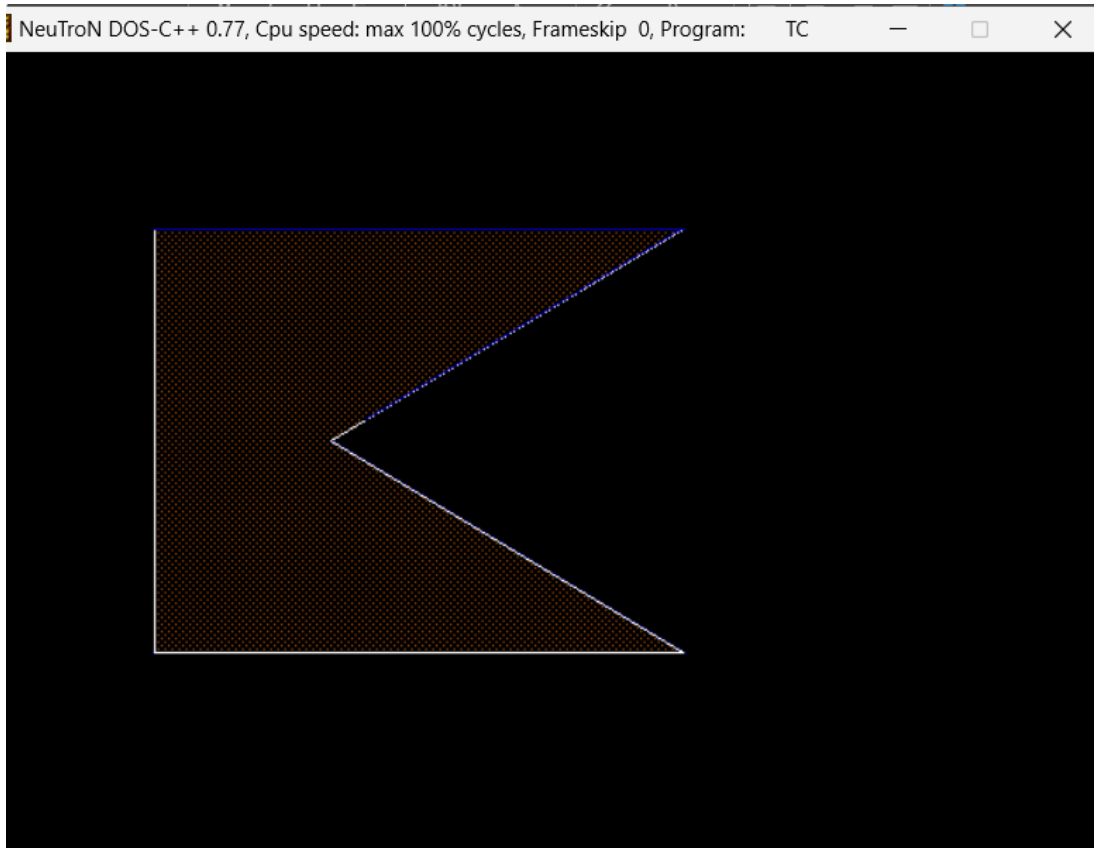

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

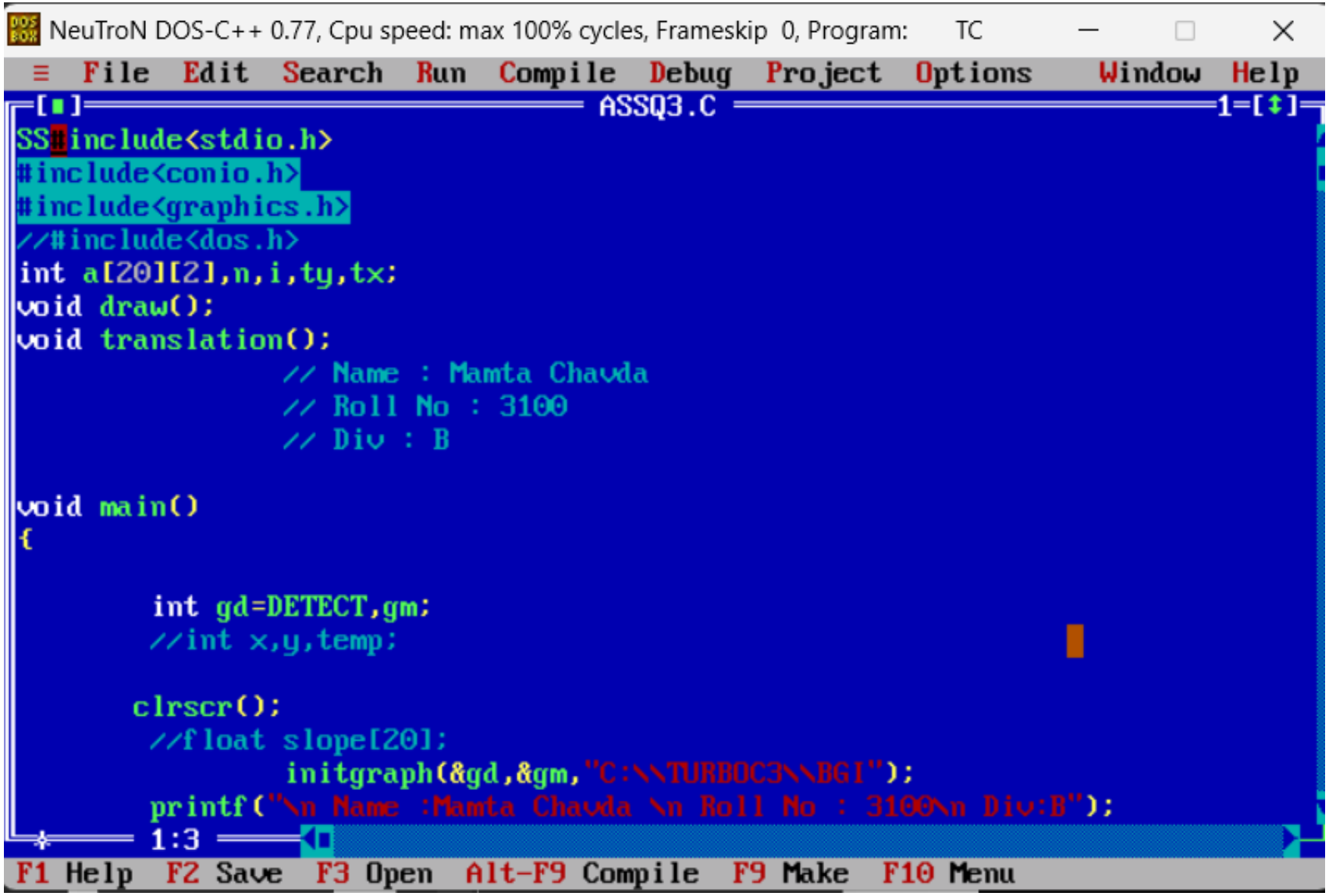

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

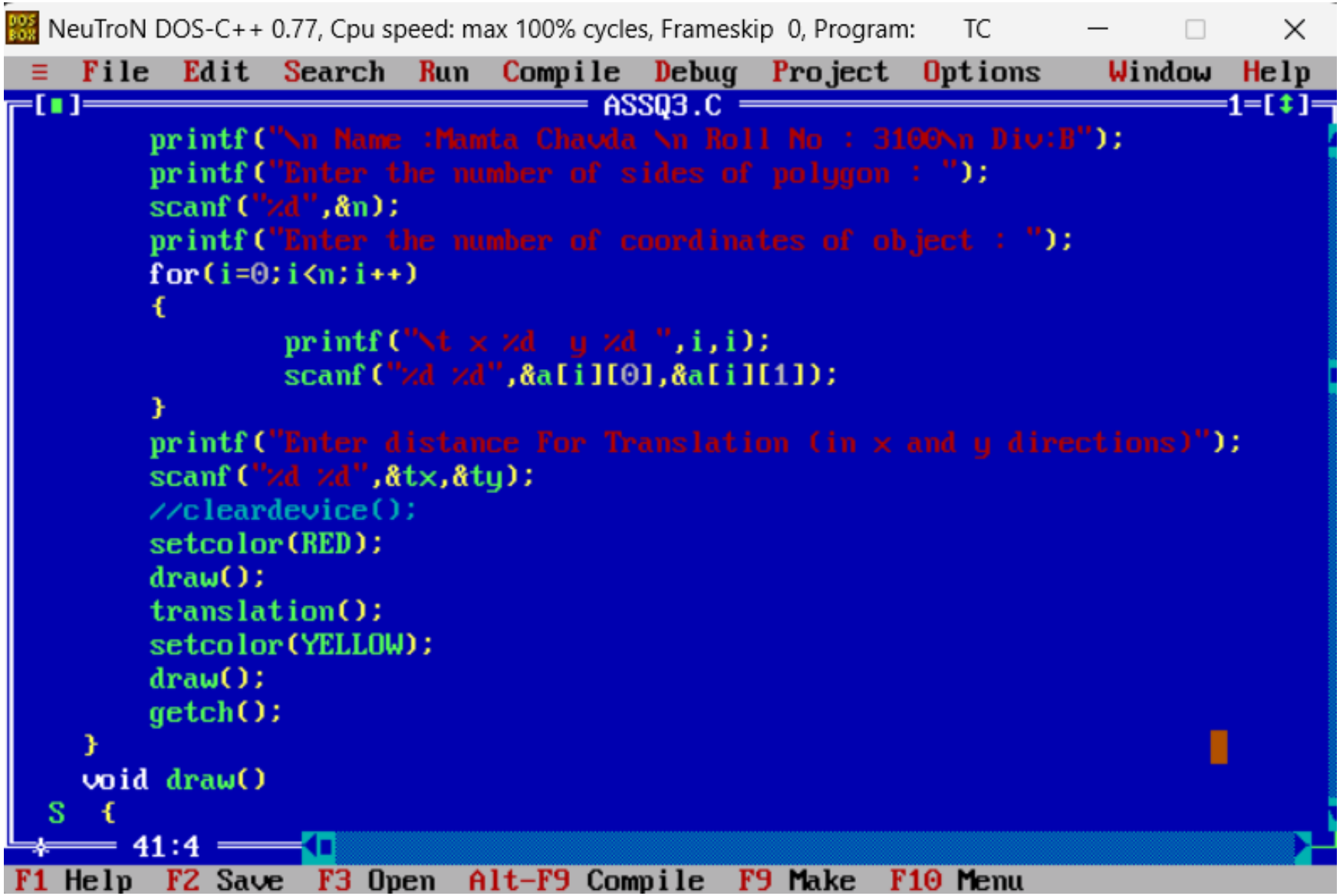

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

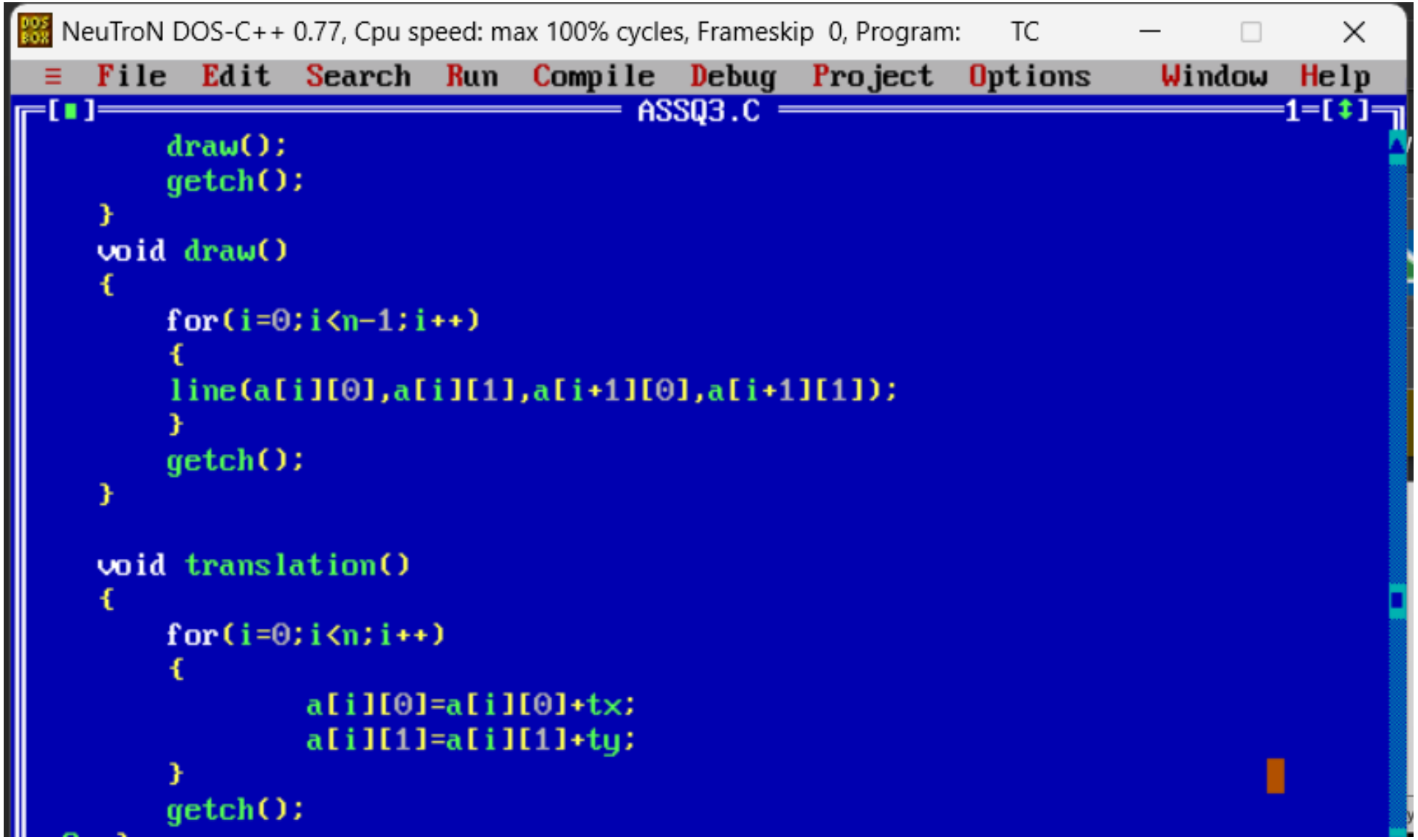

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

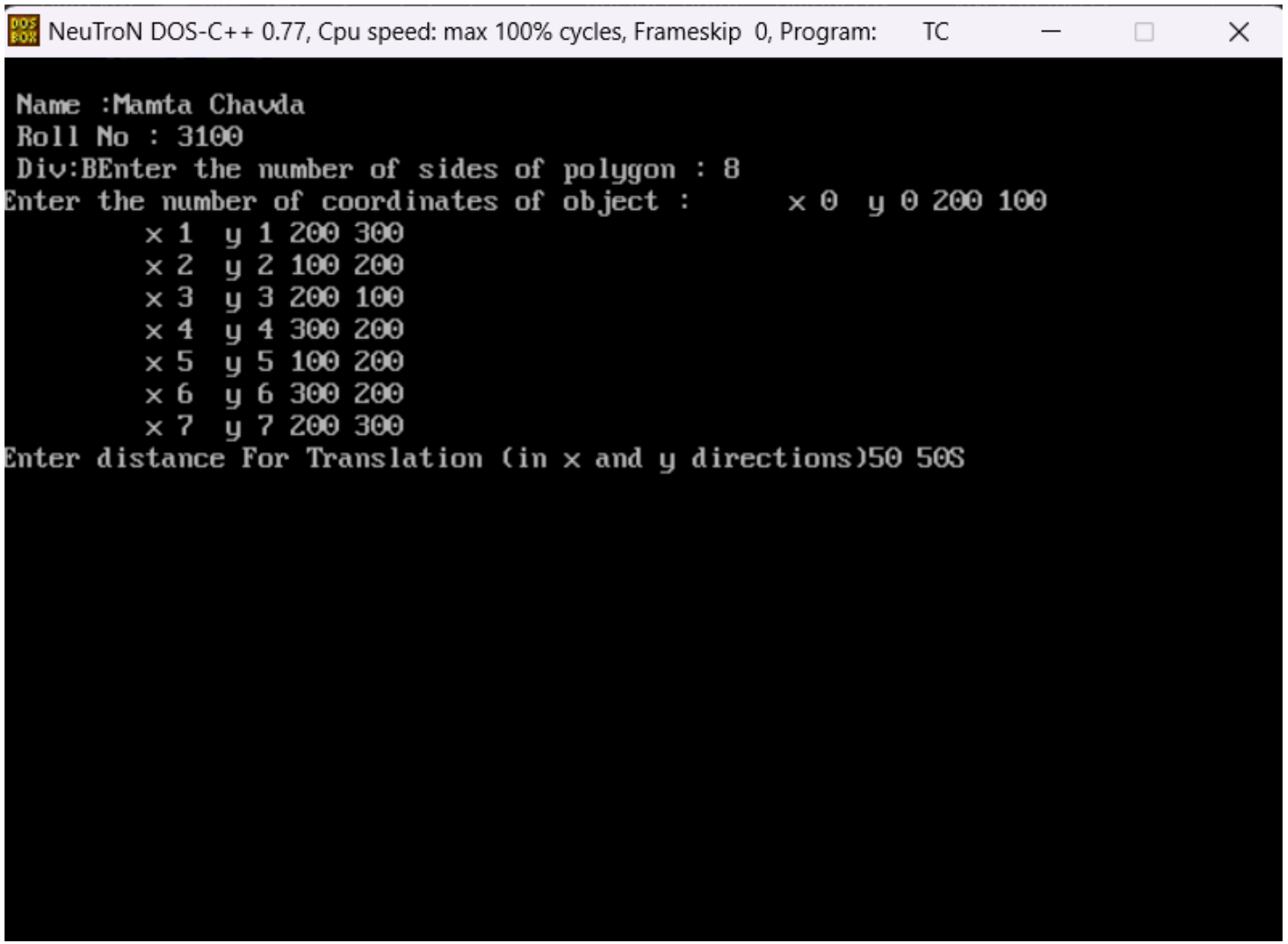
Q3


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C
SS#include<stdio.h>
#include<conio.h>
#include<graphics.h>
//#include<dos.h>
int a[20][2],n,i,ty,tx;
void draw();
void translation();
// Name : Mamta Chavda
// Roll No : 3100
// Div : B
void main()
{
int gd=DETECT,gm;
//int x,y,temp;
clrscr();
//float slope[20];
initgraph(&gd,&gm,"C:\\TURBOC3\\BGI");
printf("\n Name :Mamta Chavda \n Roll No : 3100\n Div:B");
1:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C
printf("\n Name :Mamta Chavda \n Roll No : 3100\n Div:B");
printf("Enter the number of sides of polygon : ");
scanf("%d",&n);
printf("Enter the number of coordinates of object : ");
for(i=0;i<n;i++)
{
printf("\t x %d y %d ",i,i);
scanf("%d %d",&a[i][0],&a[i][1]);
}
printf("Enter distance For Translation (in x and y directions)");
scanf("%d %d",&tx,&ty);
//cleardevice();
setcolor(RED);
draw();
translation();
setcolor(YELLOW);
draw();
getch();
}
void draw()
{
41:4
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

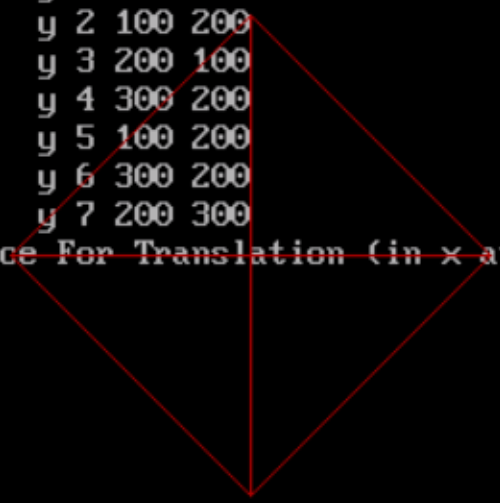

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C
draw();
getch();
}
void draw()
{
for(i=0;i<n-1;i++)
{
line(a[i][0],a[i][1],a[i+1][0],a[i+1][1]);
}
getch();
}
void translation()
{
for(i=0;i<n;i++)
{
a[i][0]=a[i][0]+tx;
a[i][1]=a[i][1]+ty;
}
getch();

output


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
Name :Mamta Chavda
Roll No : 3100
Div:BEnter the number of sides of polygon : 8
Enter the number of coordinates of object : x 0 y 0 200 100
x 1 y 1 200 300
x 2 y 2 100 200
x 3 y 3 200 100
x 4 y 4 300 200
x 5 y 5 100 200
x 6 y 6 300 200
x 7 y 7 200 300
Enter distance For Translation (in x and y directions)50 50S

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

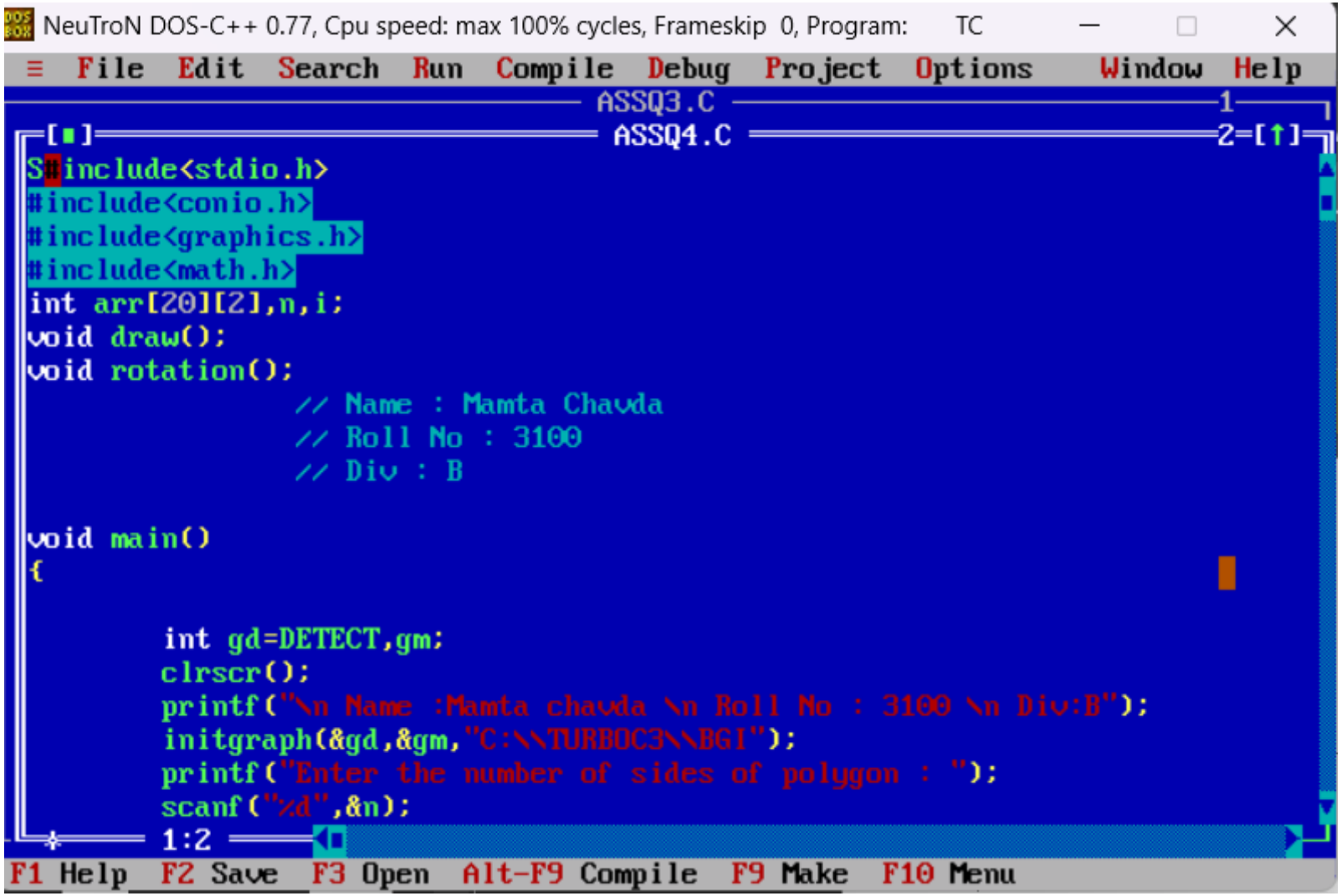
```
 Name :Mamta Chavda
 Roll No : 3100
 Div:BEnter the number of sides of polygon : 8
Enter the number of coordinates of object :      x 0  y 0 200 100
         x 1  y 1 200 300
         x 2  y 2 100 200
         x 3  y 3 200 100
         x 4  y 4 300 200
         x 5  y 5 100 200
         x 6  y 6 300 200
         x 7  y 7 200 300
Enter distance For Translation (in x and y directions)50 50
```

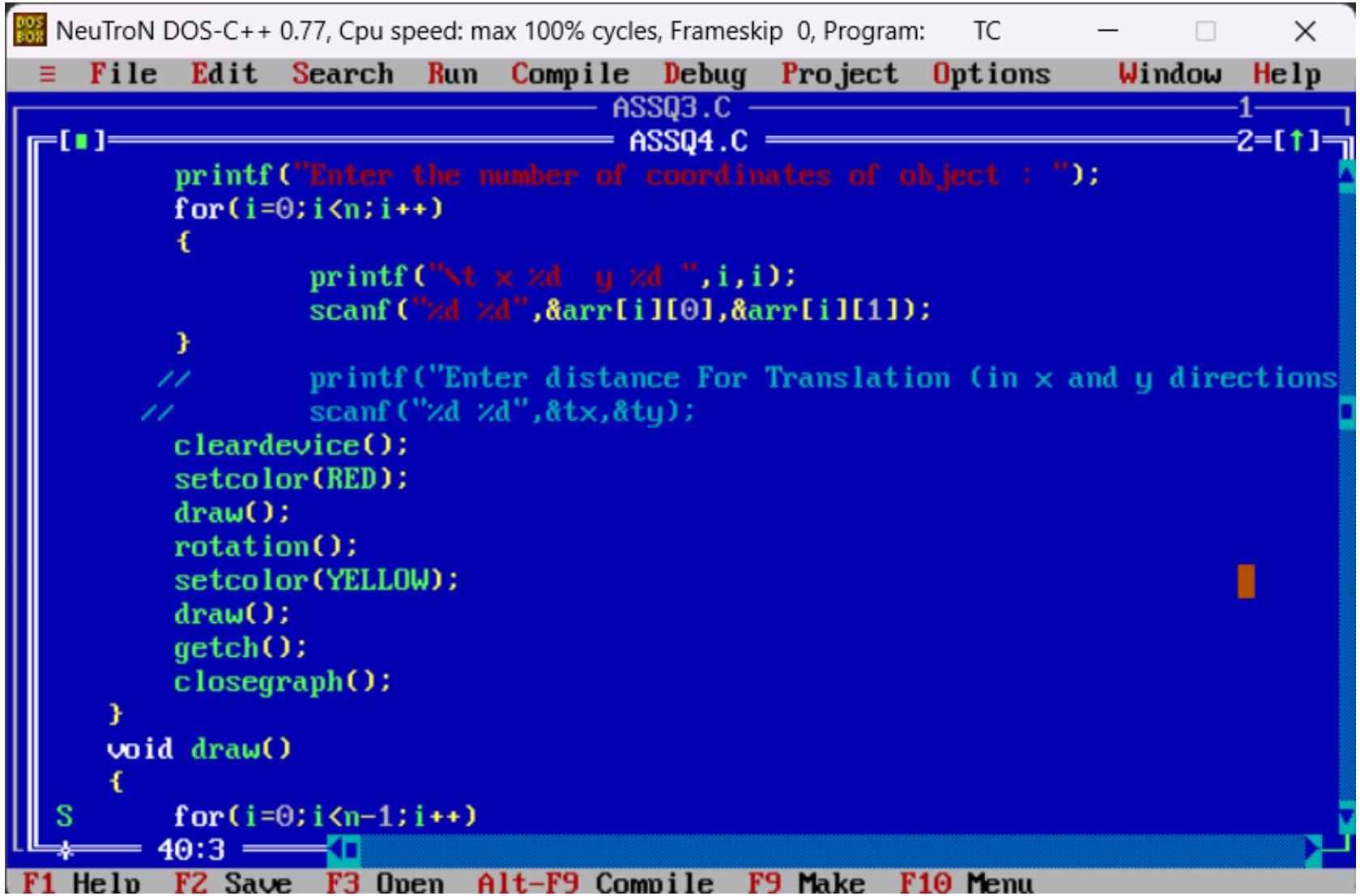


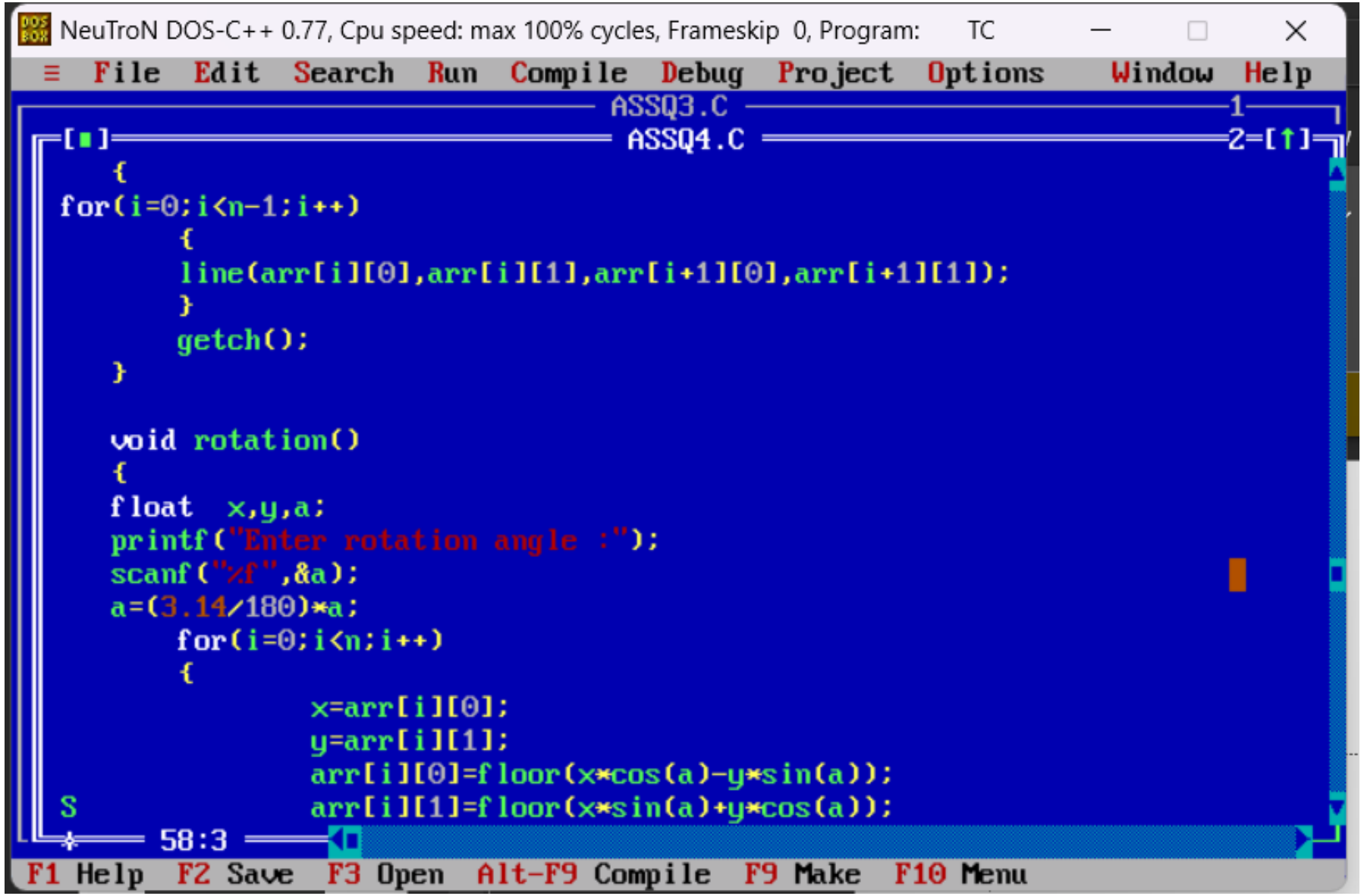
NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

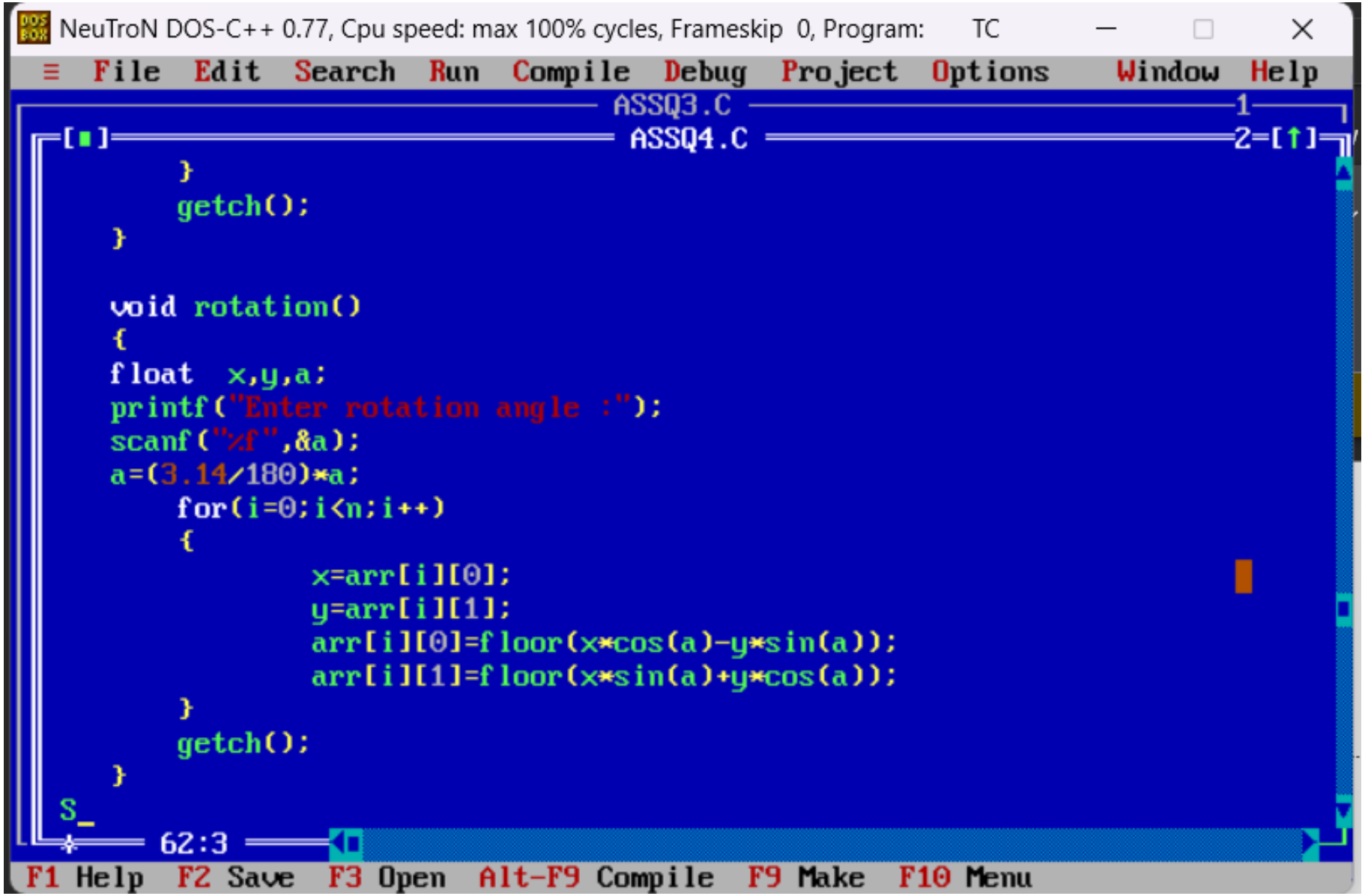
```
Name :Mamta Chavda
Roll No : 3100
Div:BEnter the number of sides of polygon : 8
Enter the number of coordinates of object :      x 0  y 0 200 100
        x 1  y 1 200 300
        x 2  y 2 100 200
        x 3  y 3 200 100
        x 4  y 4 300 200
        x 5  y 5 100 200
        x 6  y 6 300 200
        x 7  y 7 200 300
Enter distance For Translation (in x and y directions)50 50
```

q4

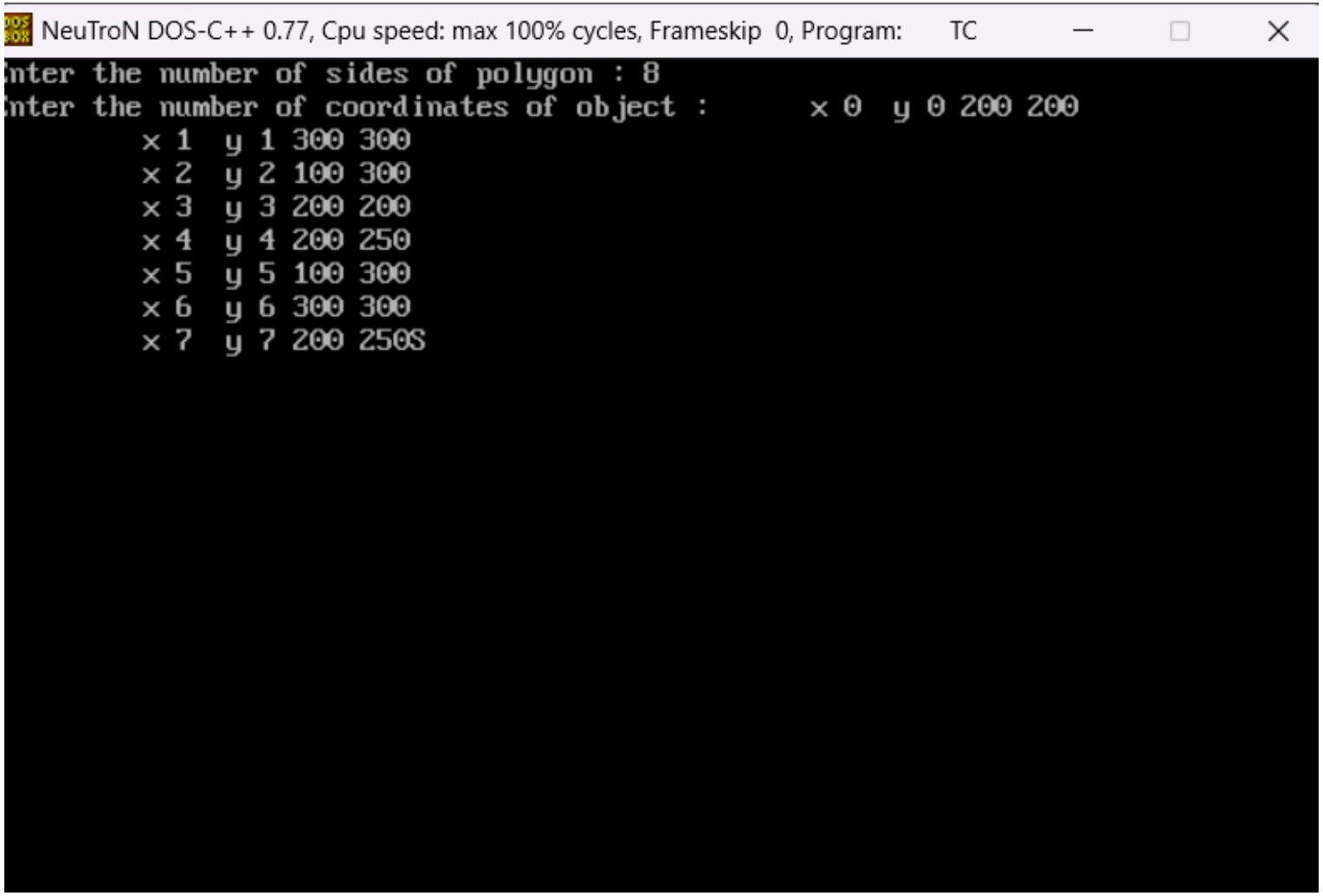

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
S#include<stdio.h>
#include<conio.h>
#include<graphics.h>
#include<math.h>
int arr[20][2],n,i;
void draw();
void rotation();
// Name : Mamta Chavda
// Roll No : 3100
// Div : B
void main()
{
int gd=DETECT,gm;
clrscr();
printf("\n Name :Mamta chavda \n Roll No : 3100 \n Div:B");
initgraph(&gd,&gm,"C:\\TURBOC3\\BGI");
printf("Enter the number of sides of polygon : ");
scanf("%d",&n);
1:2
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

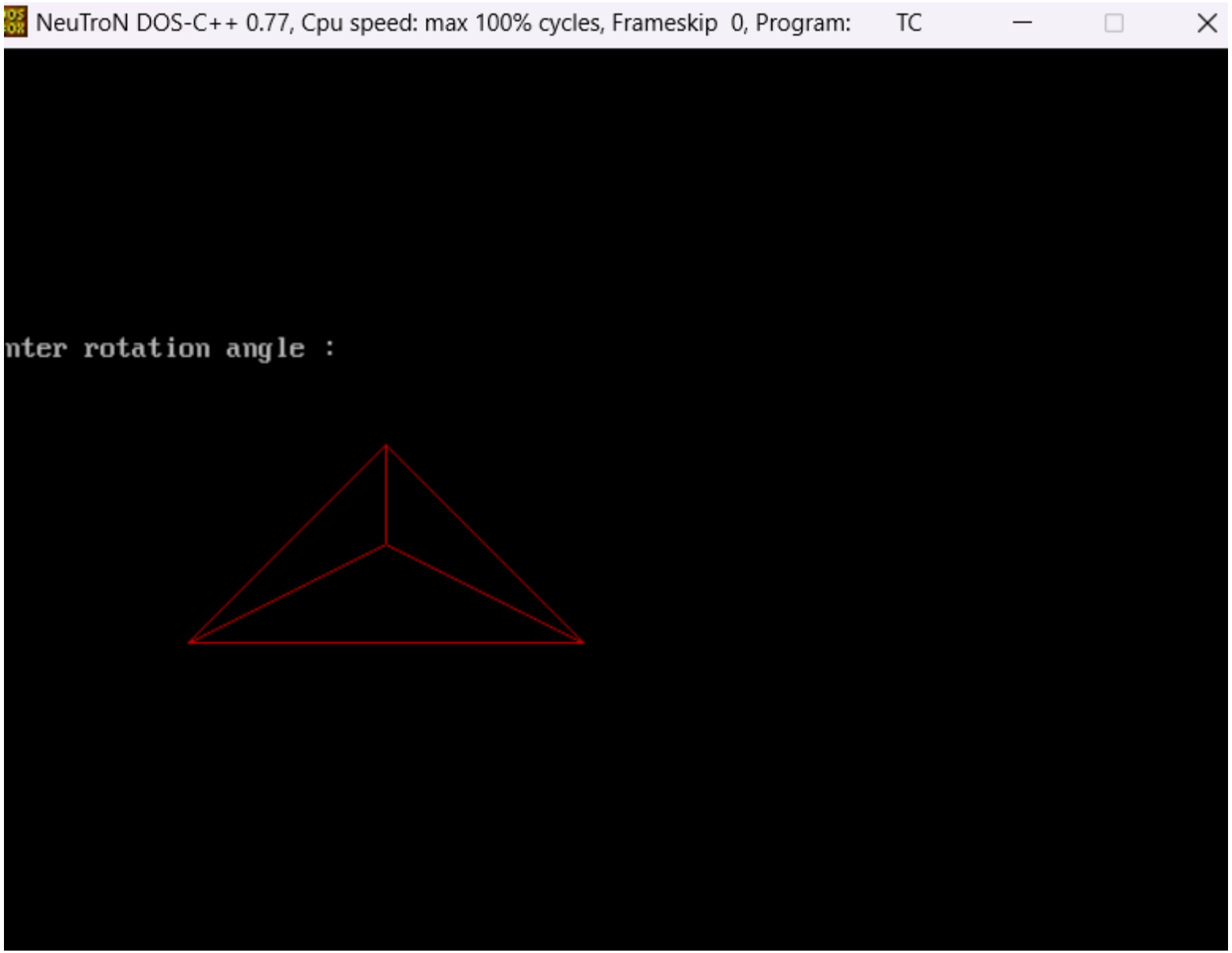

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
printf("Enter the number of coordinates of object : ");
for(i=0;i<n;i++)
{
printf("\t x %d y %d ",i,i);
scanf("%d %d",&arr[i][0],&arr[i][1]);
}
// printf("Enter distance For Translation (in x and y directions
// scanf("%d %d",&tx,&ty);
cleardevice();
setcolor(RED);
draw();
rotation();
setcolor(YELLOW);
draw();
getch();
closegraph();
}
void draw()
{
for(i=0;i<n-1;i++)
40:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

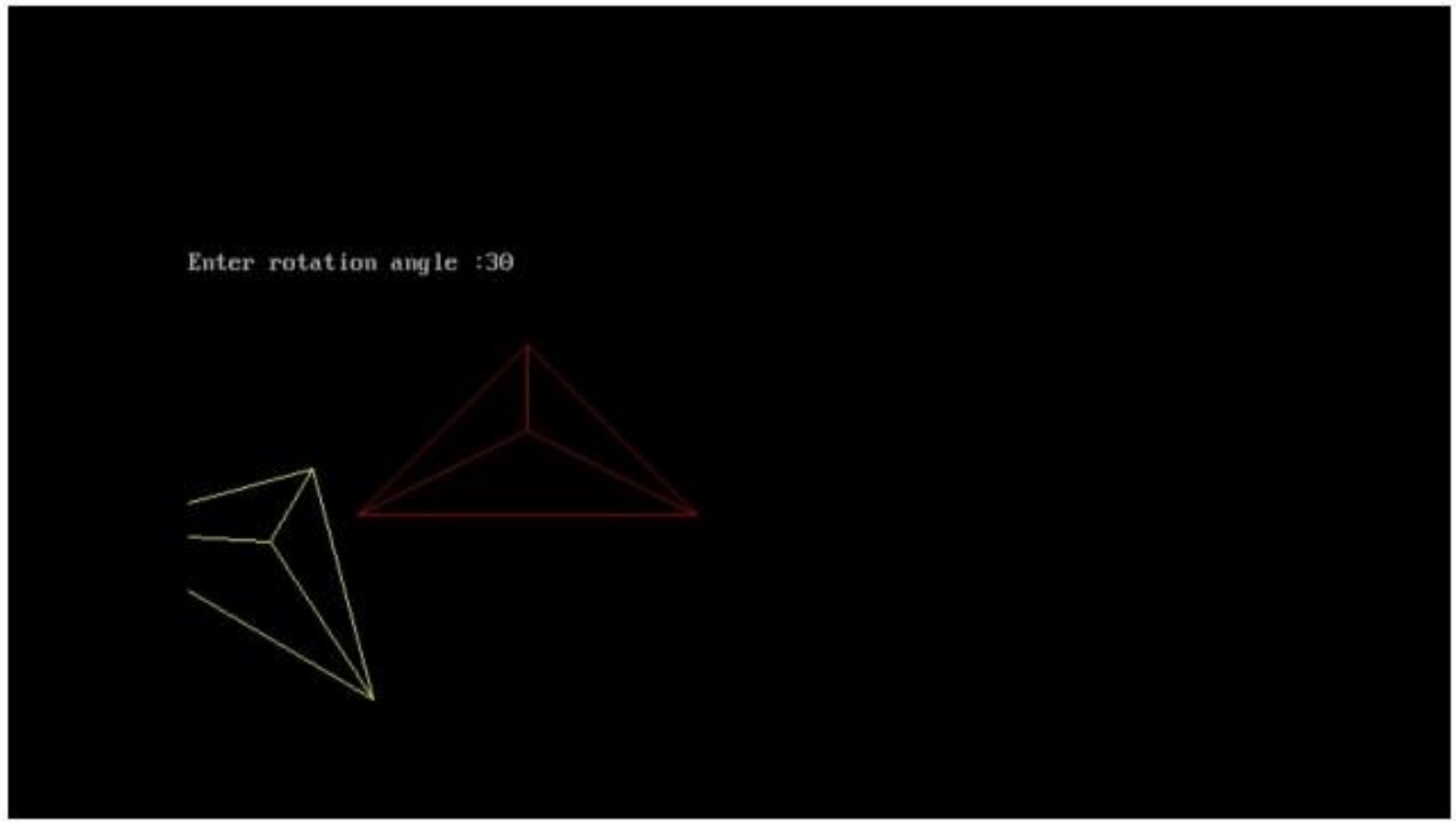

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
{
for(i=0;i<n-1;i++)
{
line(arr[i][0],arr[i][1],arr[i+1][0],arr[i+1][1]);
}
getch();
}
void rotation()
{
float x,y,a;
printf("Enter rotation angle :");
scanf("%f",&a);
a=(3.14/180)*a;
for(i=0;i<n;i++)
{
x=arr[i][0];
y=arr[i][1];
arr[i][0]=floor(x*cos(a)-y*sin(a));
arr[i][1]=floor(x*sin(a)+y*cos(a));
58:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
}
getch();
}
void rotation()
{
float x,y,a;
printf("Enter rotation angle :");
scanf("%f",&a);
a=(3.14/180)*a;
for(i=0;i<n;i++)
{
x=arr[i][0];
y=arr[i][1];
arr[i][0]=floor(x*cos(a)-y*sin(a));
arr[i][1]=floor(x*sin(a)+y*cos(a));
}
getch();
}
S_
62:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

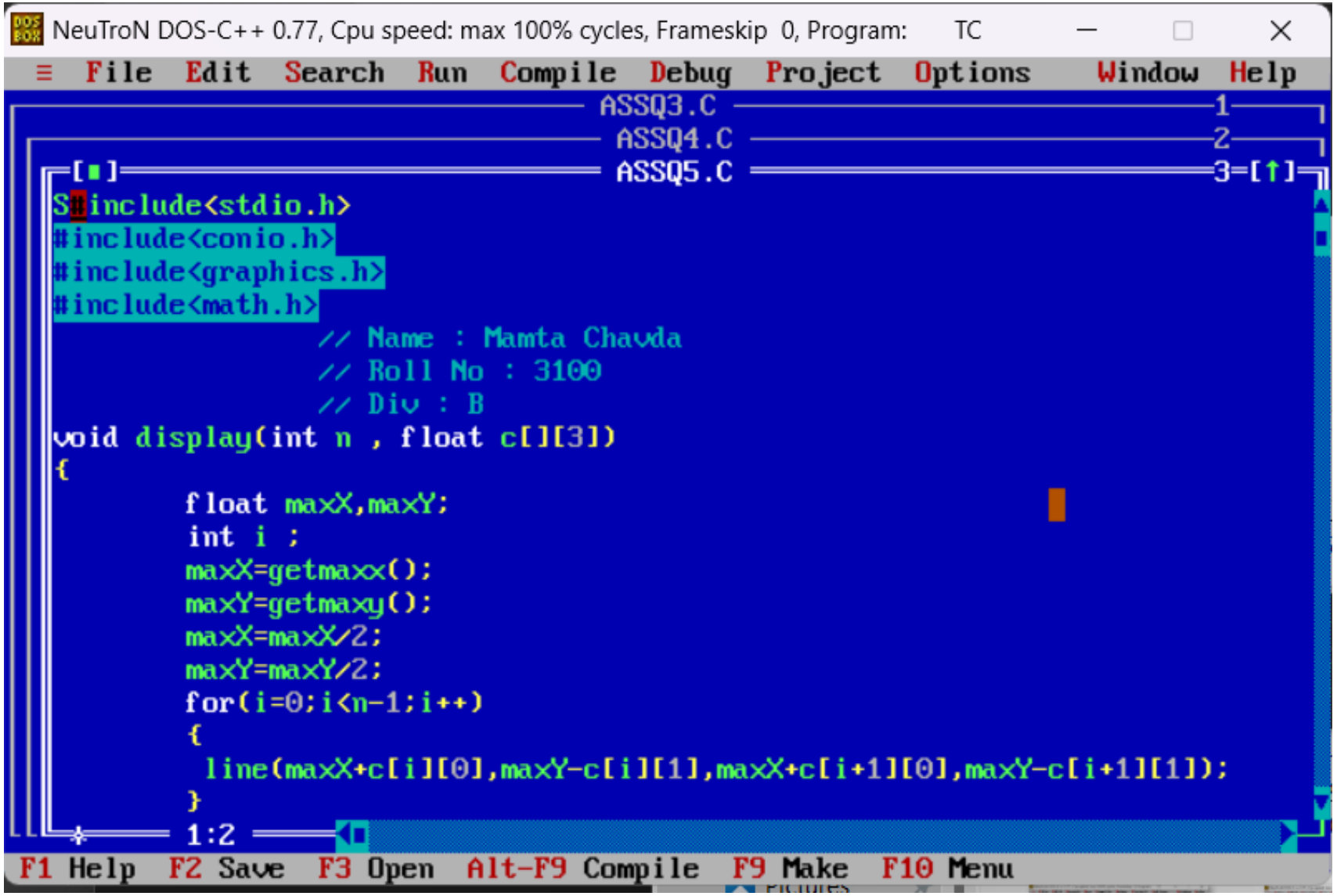
Output:

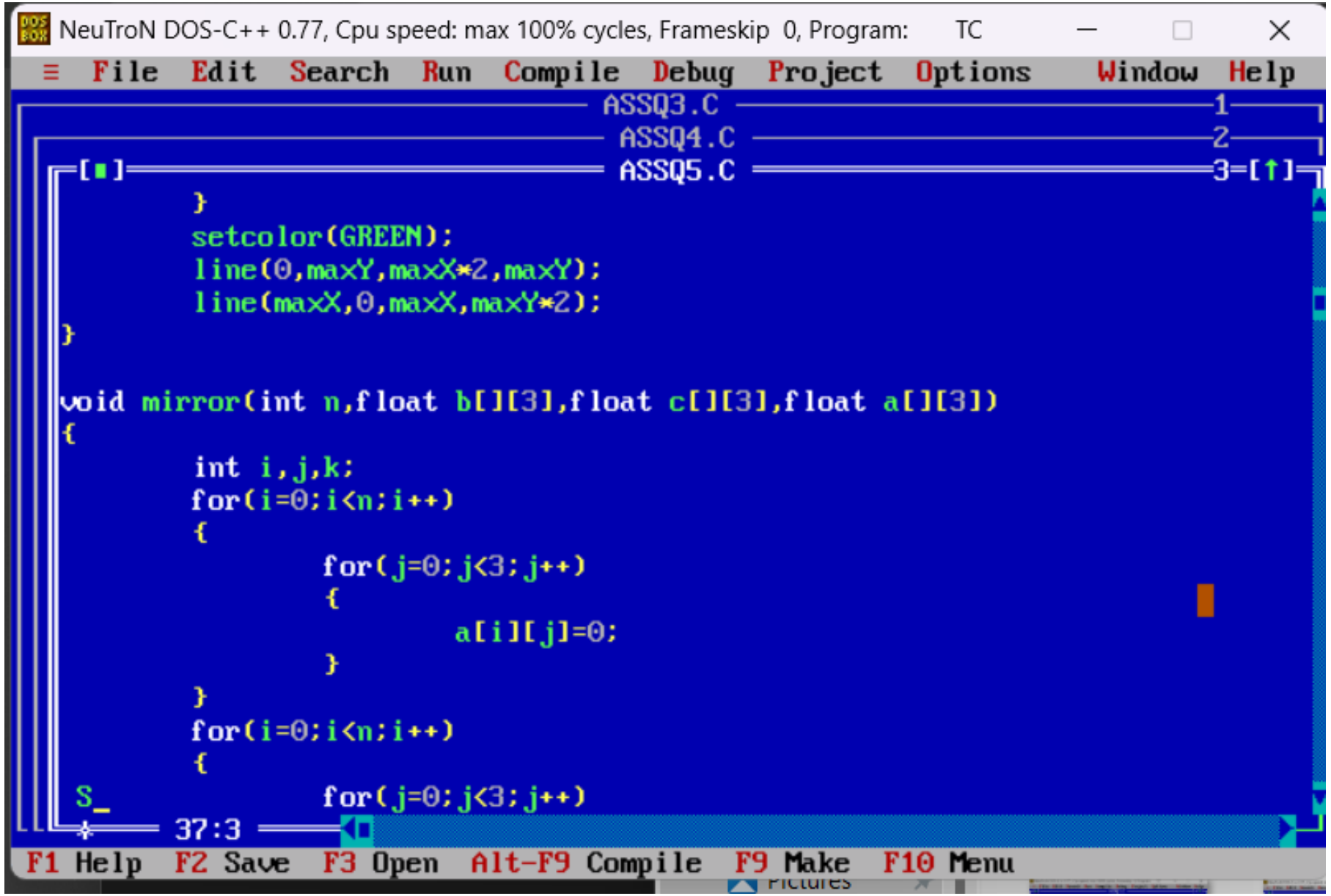

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
nter the number of sides of polygon : 8
nter the number of coordinates of object : x 0 y 0 200 200
x 1 y 1 300 300
x 2 y 2 100 300
x 3 y 3 200 200
x 4 y 4 200 250
x 5 y 5 100 300
x 6 y 6 300 300
x 7 y 7 200 250S

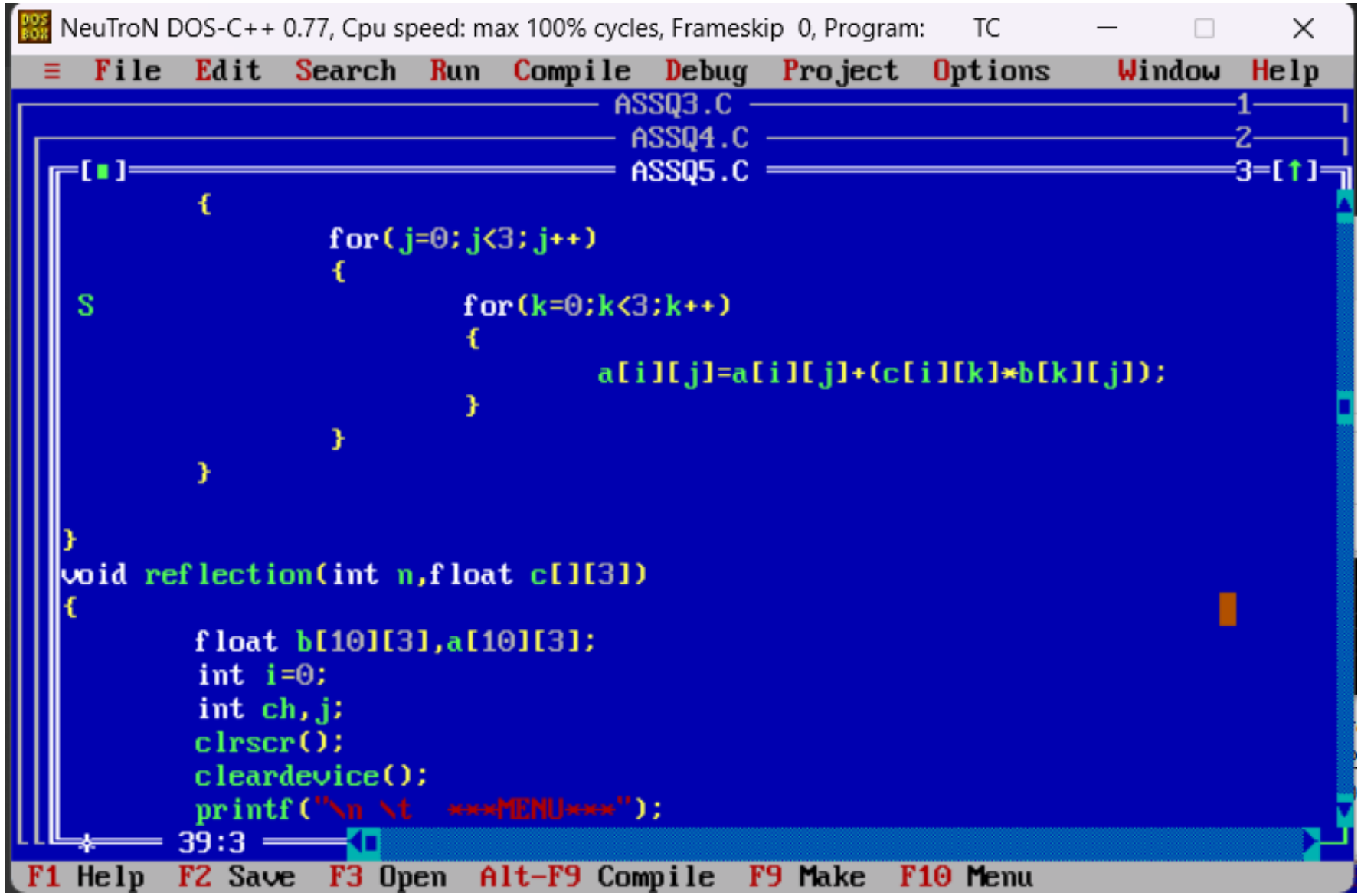

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
nter rotation angle :

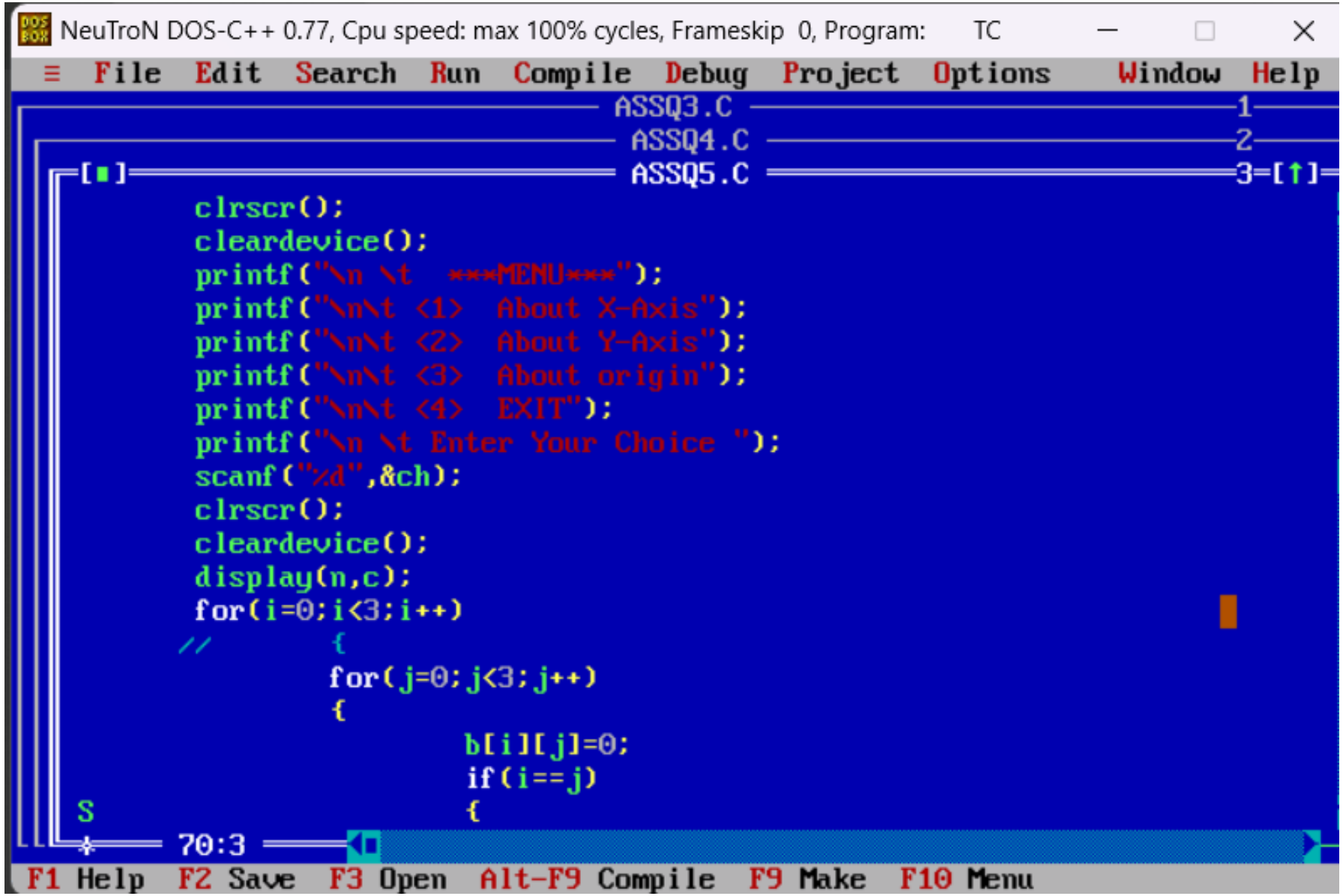

Enter rotation angle :30

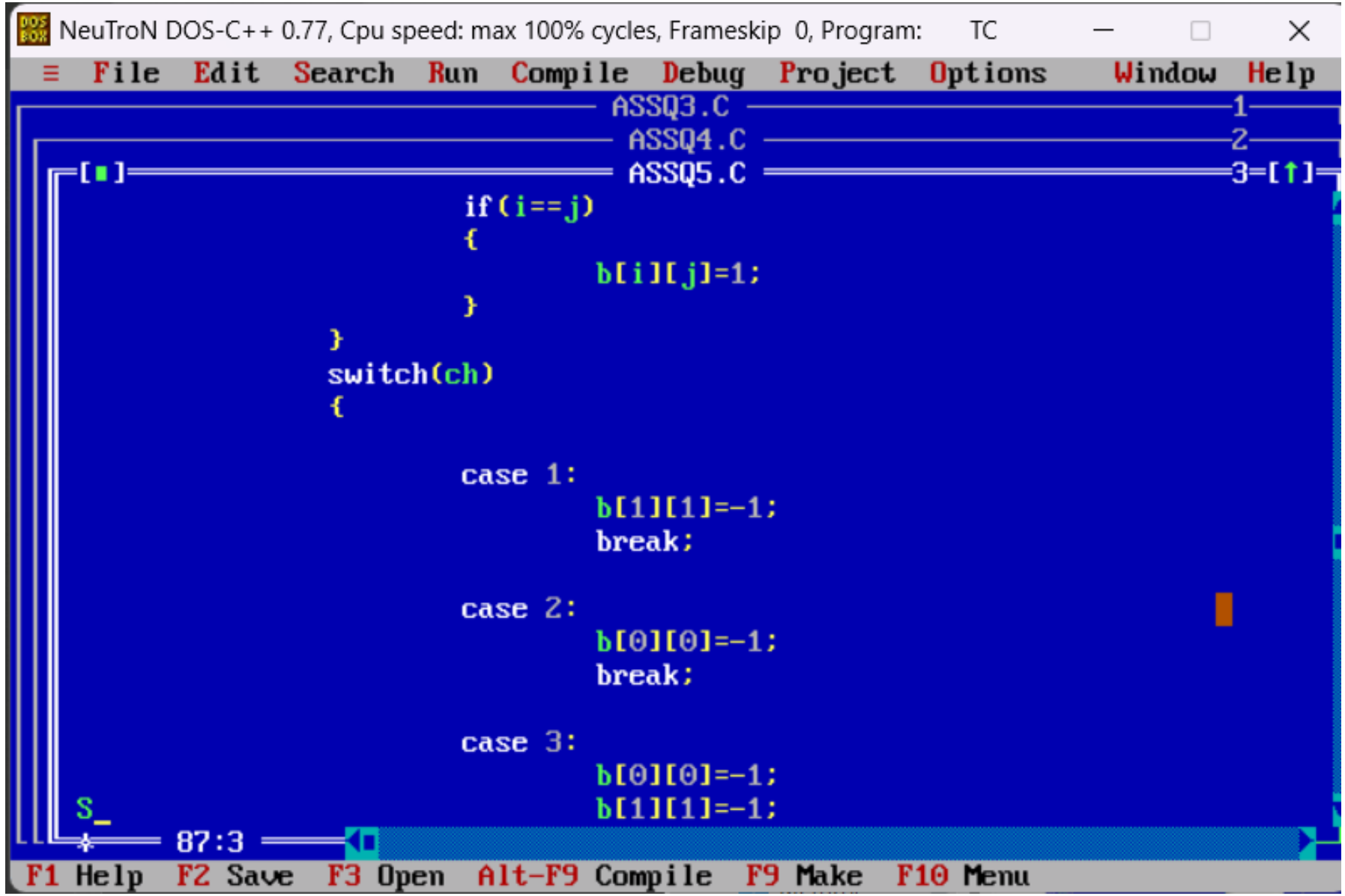
Q5

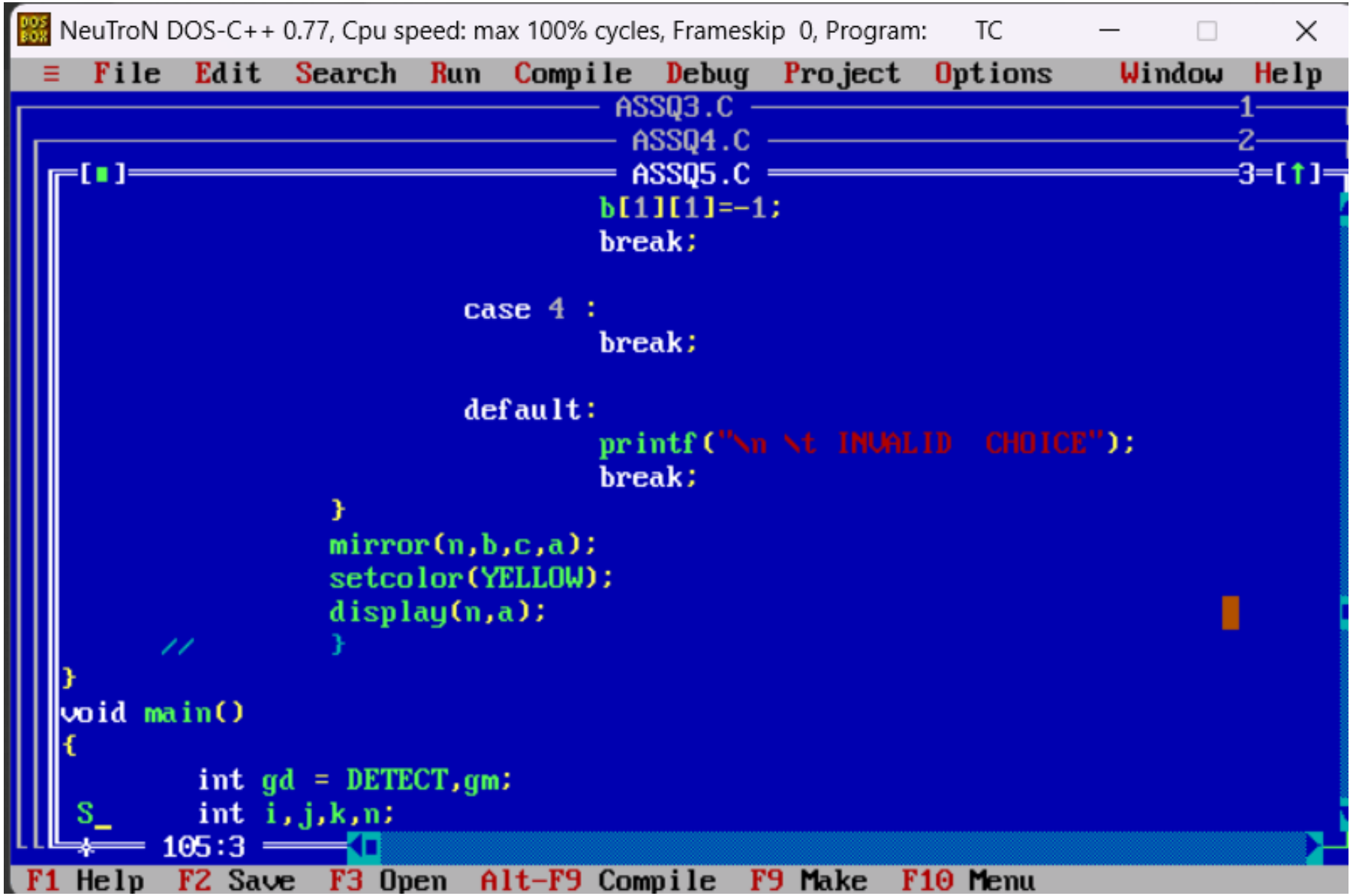

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
ASSQ5.C 3
S#include<stdio.h>
#include<conio.h>
#include<graphics.h>
#include<math.h>
// Name : Mamta Chavda
// Roll No : 3100
// Div : B
void display(int n , float c[][3])
{
float maxX,maxY;
int i ;
maxX=getmaxx();
maxY=getmaxy();
maxX=maxX/2;
maxY=maxY/2;
for(i=0;i<n-1;i++)
{
line(maxX+c[i][0],maxY-c[i][1],maxX+c[i+1][0],maxY-c[i+1][1]);
}
1:2
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

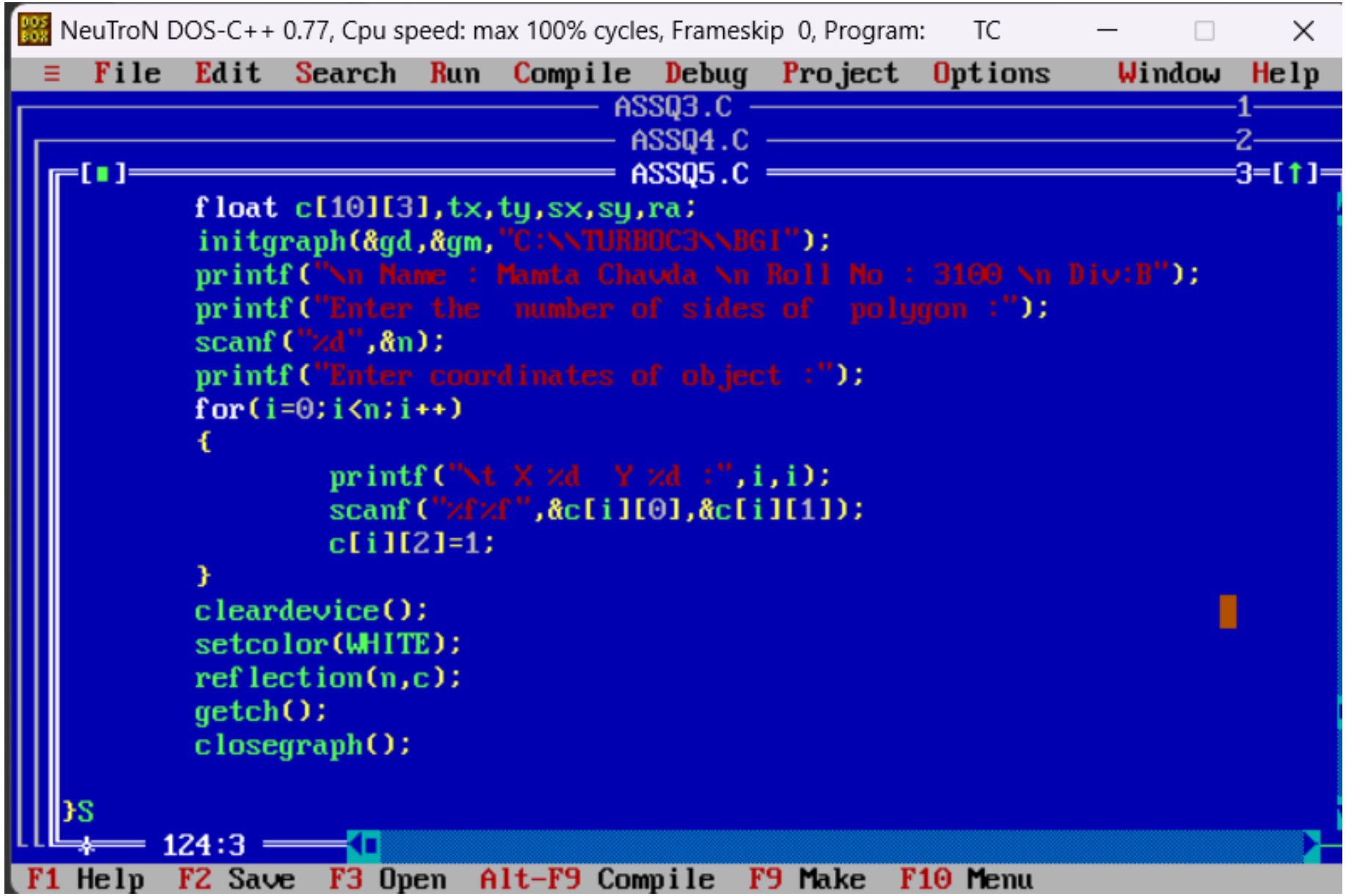

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
ASSQ5.C 3
}
setcolor(GREEN);
line(0,maxY,maxX*2,maxY);
line(maxX,0,maxX,maxY*2);
}
void mirror(int n,float b[][3],float c[][3],float a[][3])
{
int i,j,k;
for(i=0;i<n;i++)
{
for(j=0;j<3;j++)
{
a[i][j]=0;
}
}
for(i=0;i<n;i++)
{
for(j=0;j<3;j++)
37:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
ASSQ5.C 3
{
for(j=0;j<3;j++)
{
S
for(k=0;k<3;k++)
{
a[i][j]=a[i][j]+(c[i][k]*b[k][j]);
}
}
}
}
void reflection(int n,float c[][3])
{
float b[10][3],a[10][3];
int i=0;
int ch,j;
clrscr();
cleardevice();
printf("\n \t ***MENU***");
39:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

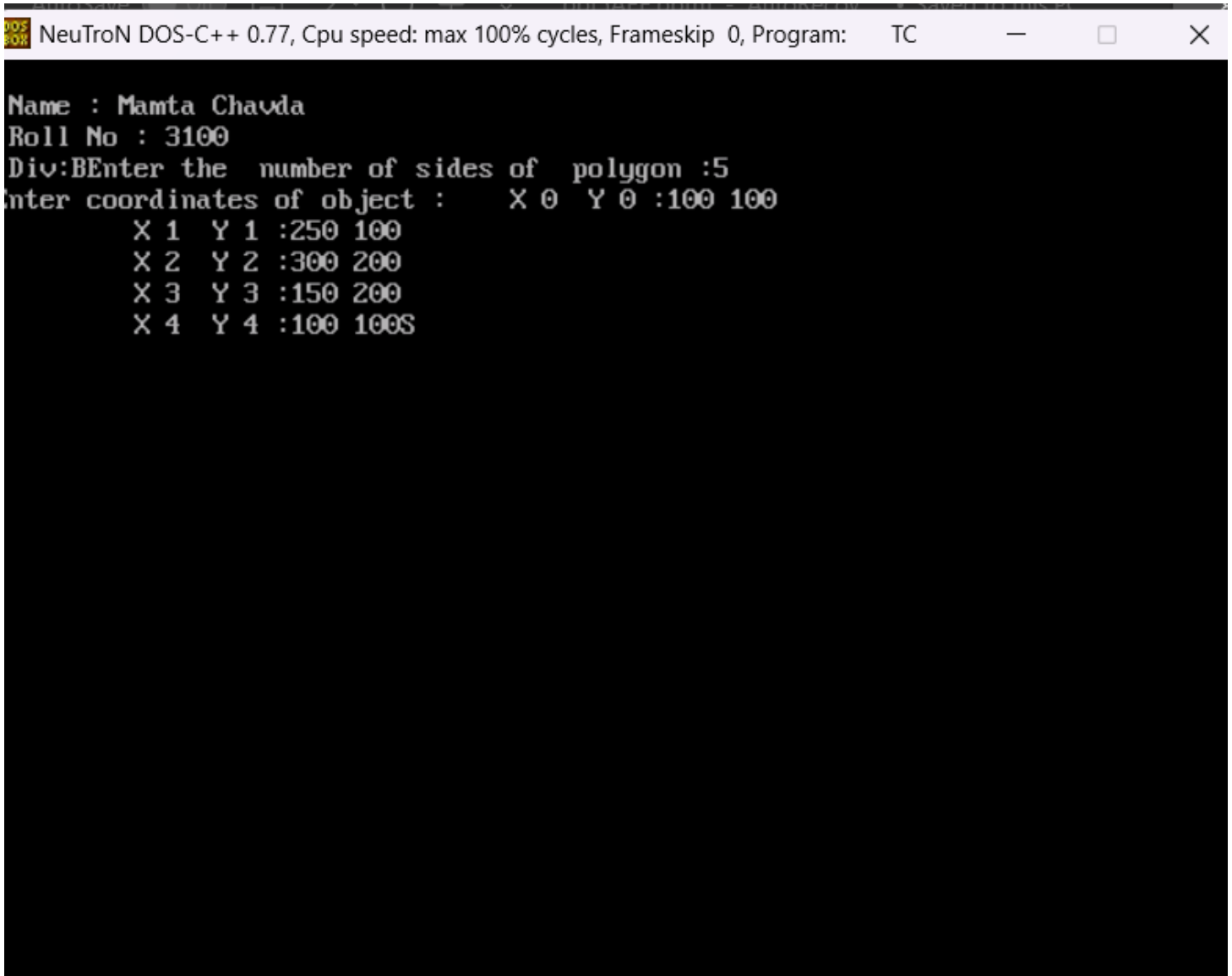

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
ASSQ5.C 3
clrscr();
cleardevice();
printf("\n \t ***MENU***");
printf("\n\t <1> About X-Axis");
printf("\n\t <2> About Y-Axis");
printf("\n\t <3> About origin");
printf("\n\t <4> EXIT");
printf("\n \t Enter Your Choice ");
scanf("%d",&ch);
clrscr();
cleardevice();
display(n,c);
for(i=0;i<3;i++)
// {
for(j=0;j<3;j++)
{
b[i][j]=0;
if(i==j)
{
S
70:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

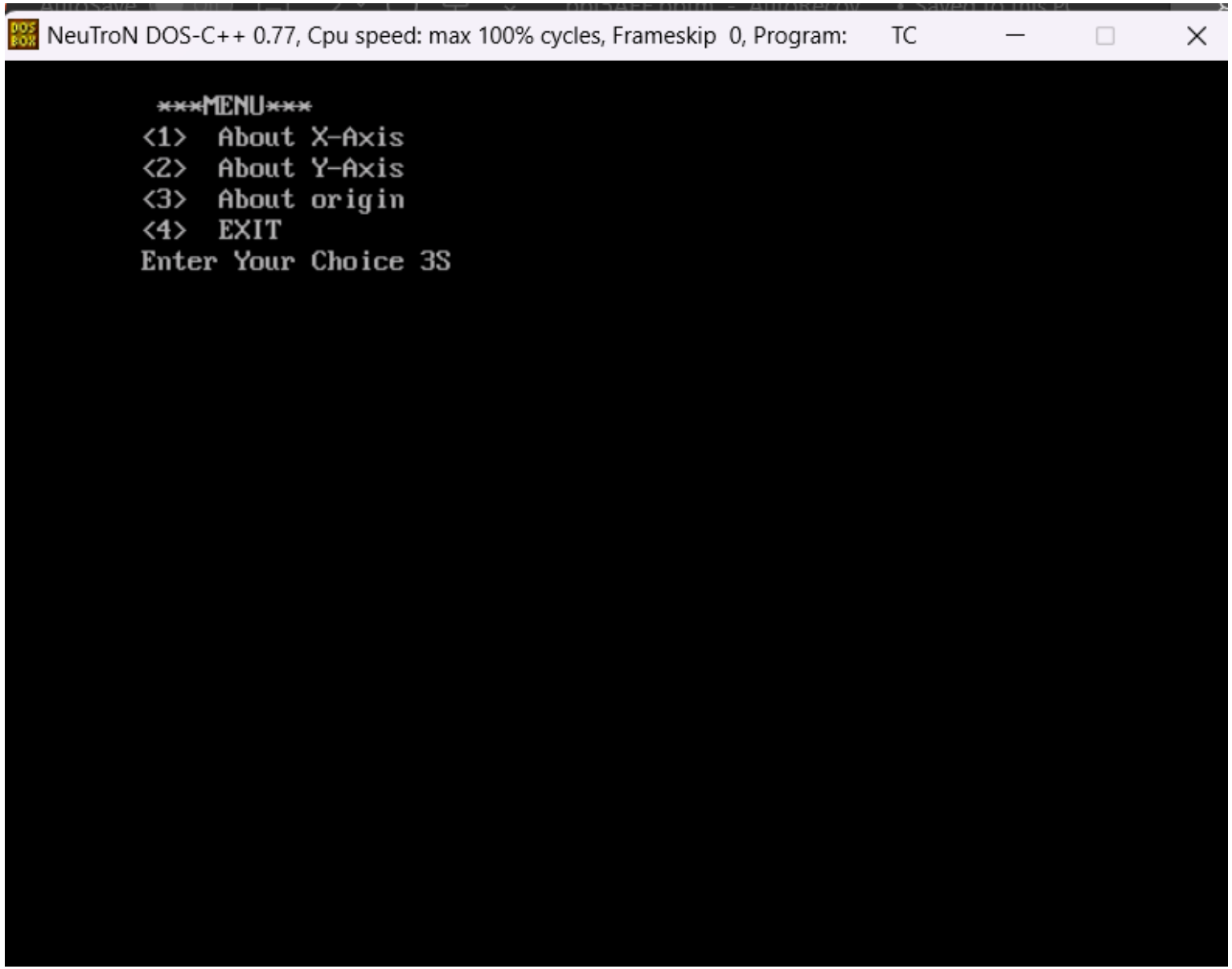

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
ASSQ5.C 3
if(i==j)
{
b[i][j]=1;
}
}
switch(ch)
{
case 1:
b[1][1]=-1;
break;
case 2:
b[0][0]=-1;
break;
case 3:
b[0][0]=-1;
b[1][1]=-1;
S_
87:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

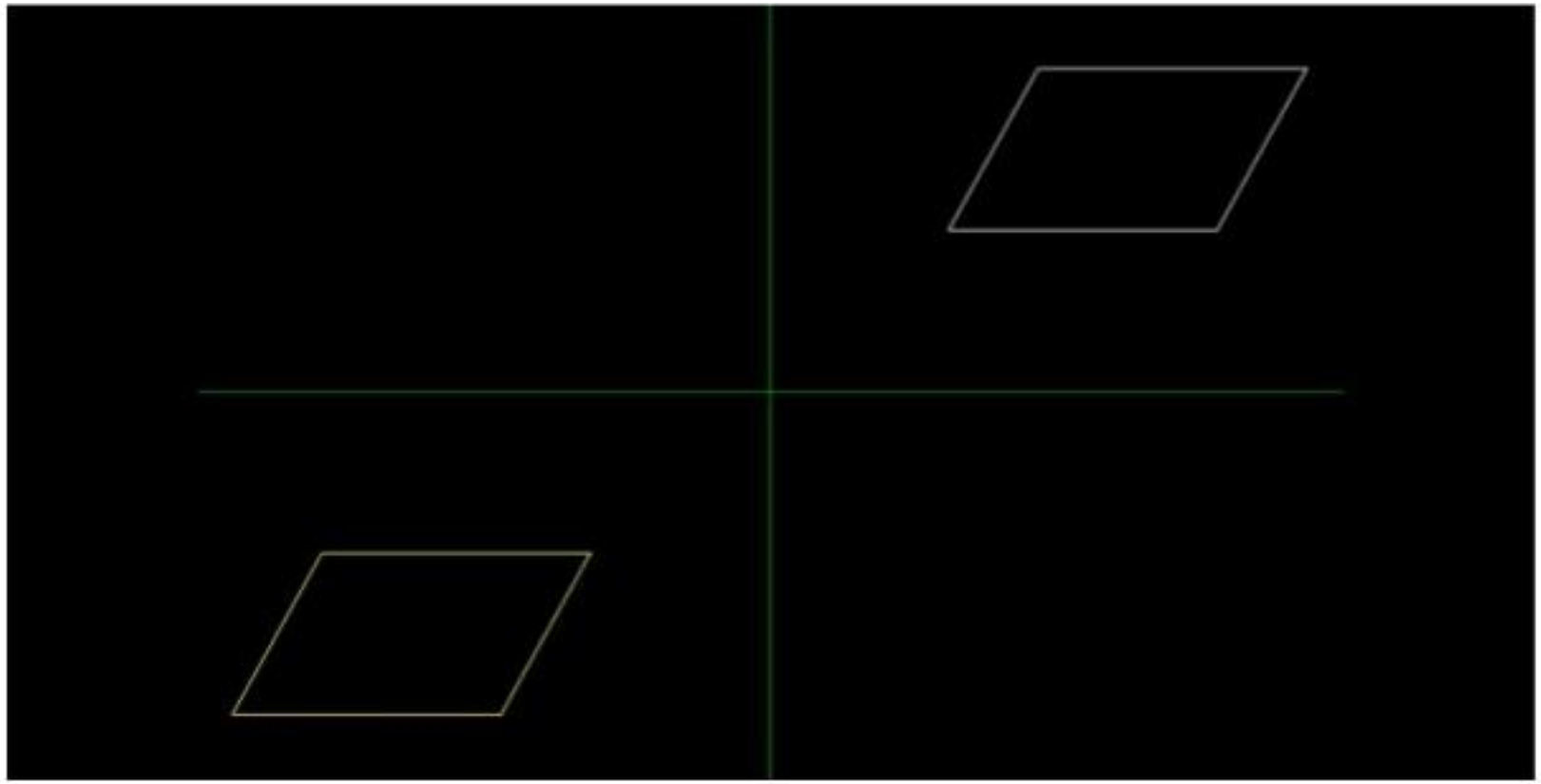

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
ASSQ5.C 3
b[1][1]=-1;
break;
case 4 :
break;
default:
printf("\n \t INVALID CHOICE");
break;
}
mirror(n,b,c,a);
setcolor(YELLOW);
display(n,a);
}
void main()
{
int gd = DETECT,gm;
int i,j,k,n;
105:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ3.C 1
ASSQ4.C 2
ASSQ5.C 3
float c[10][3],tx,ty,sx,sy,ra;
initgraph(&gd,&gm,"C:\\TURBOC3\\BGI");
printf("\n Name : Mamta Chavda \n Roll No : 3100 \n Div:B");
printf("Enter the number of sides of polygon :");
scanf("%d",&n);
printf("Enter coordinates of object :");
for(i=0;i<n;i++)
{
printf("\t X %d Y %d :",i,i);
scanf("%f%f",&c[i][0],&c[i][1]);
c[i][2]=1;
}
cleardevice();
setcolor(WHITE);
reflection(n,c);
getch();
closegraph();
}S
124:3
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

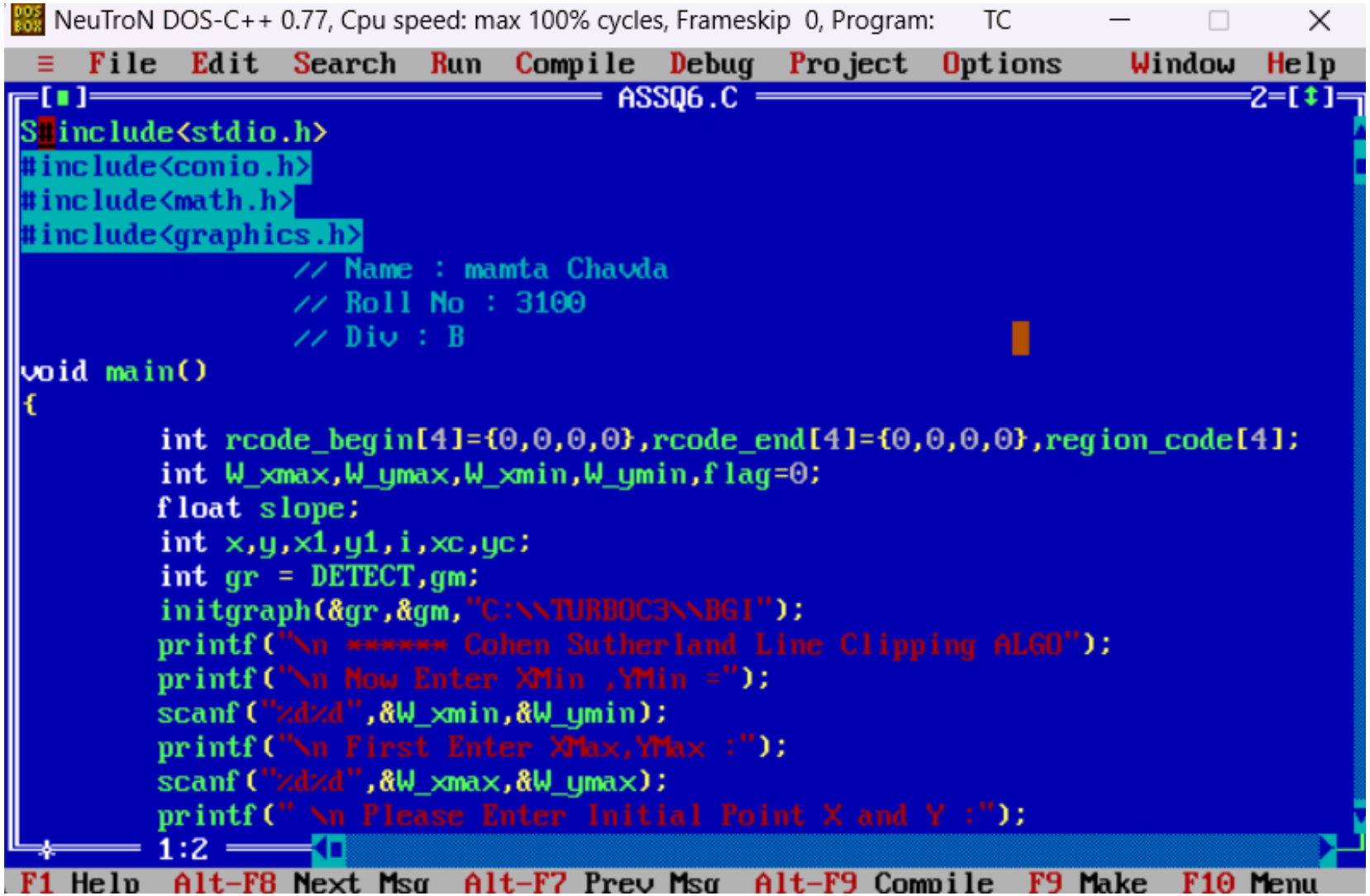
Output:

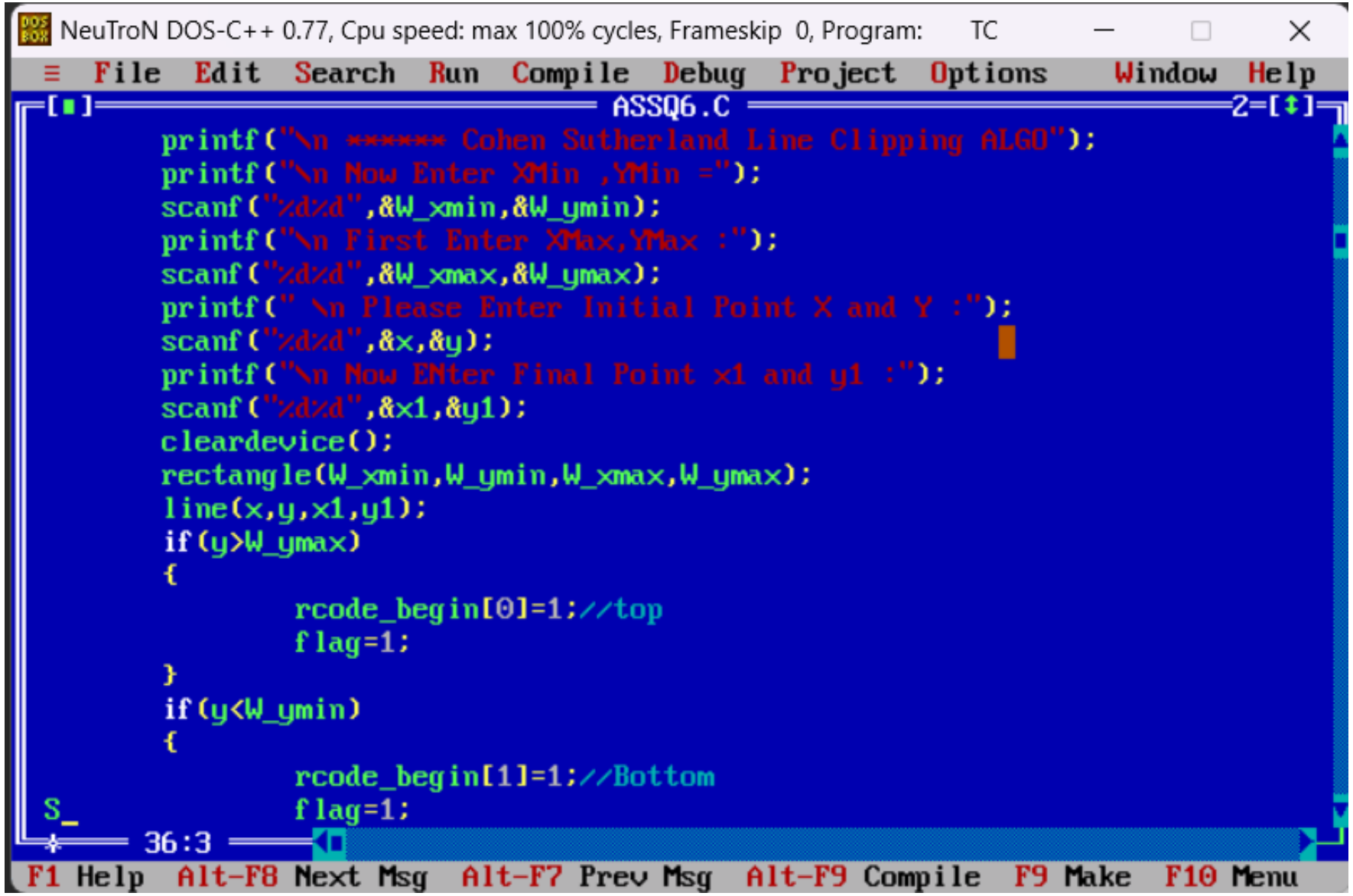

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
Name : Mamta Chavda
Roll No : 3100
Div:BEnter the number of sides of polygon :5
nter coordinates of object : X 0 Y 0 :100 100
X 1 Y 1 :250 100
X 2 Y 2 :300 200
X 3 Y 3 :150 200
X 4 Y 4 :100 100S

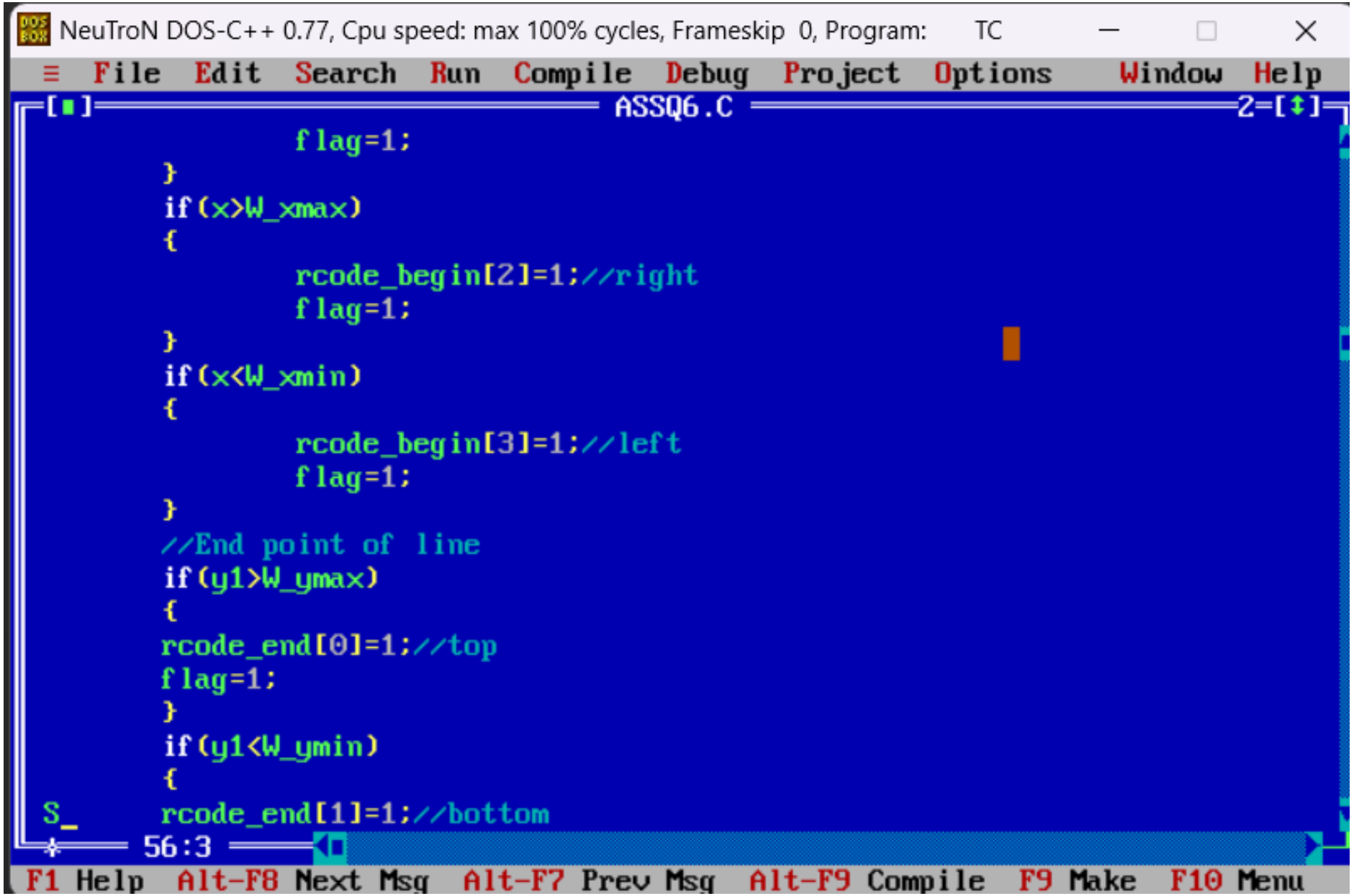

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
MENU
<1> About X-Axis
<2> About Y-Axis
<3> About origin
<4> EXIT
Enter Your Choice 3S

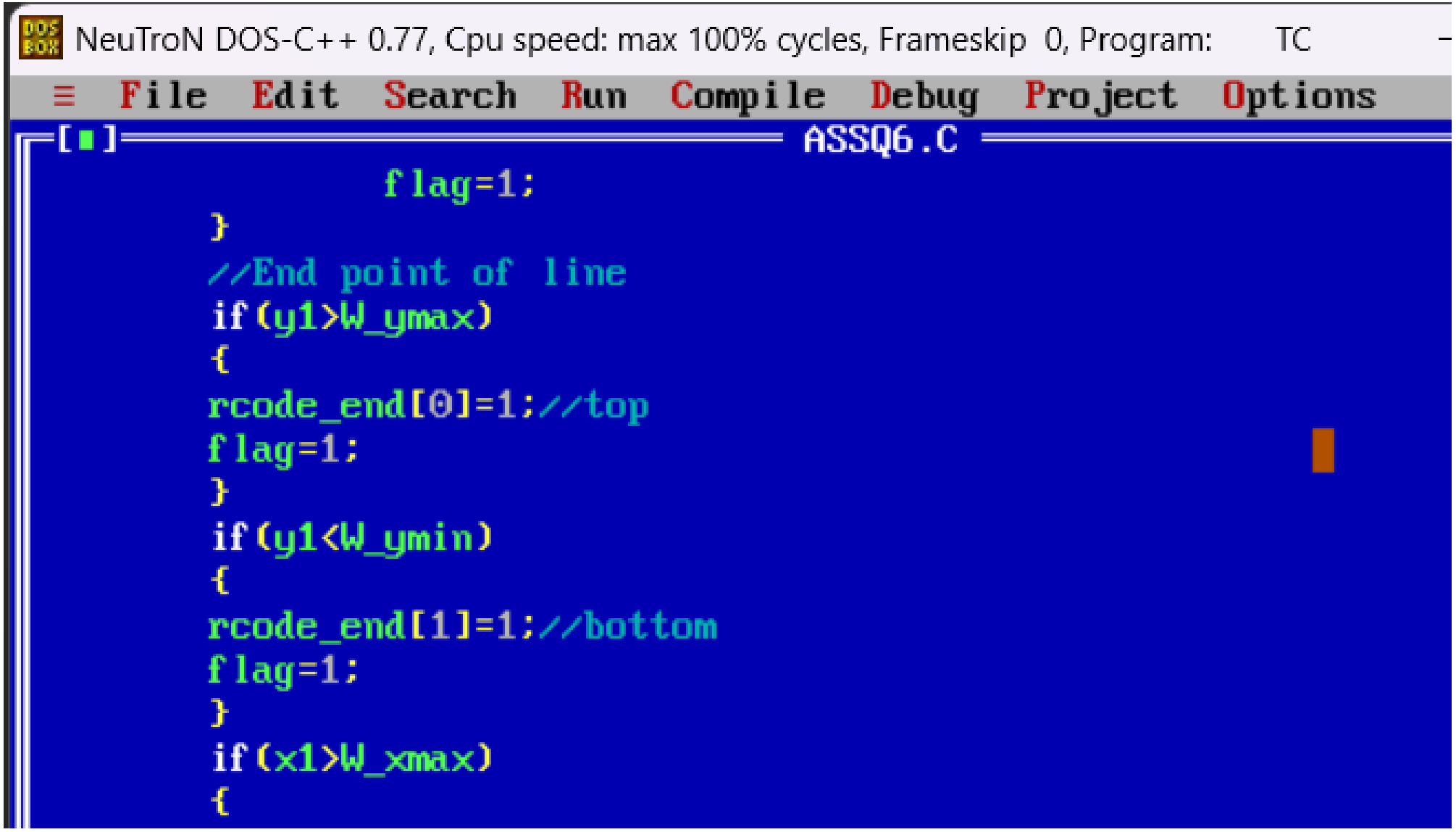


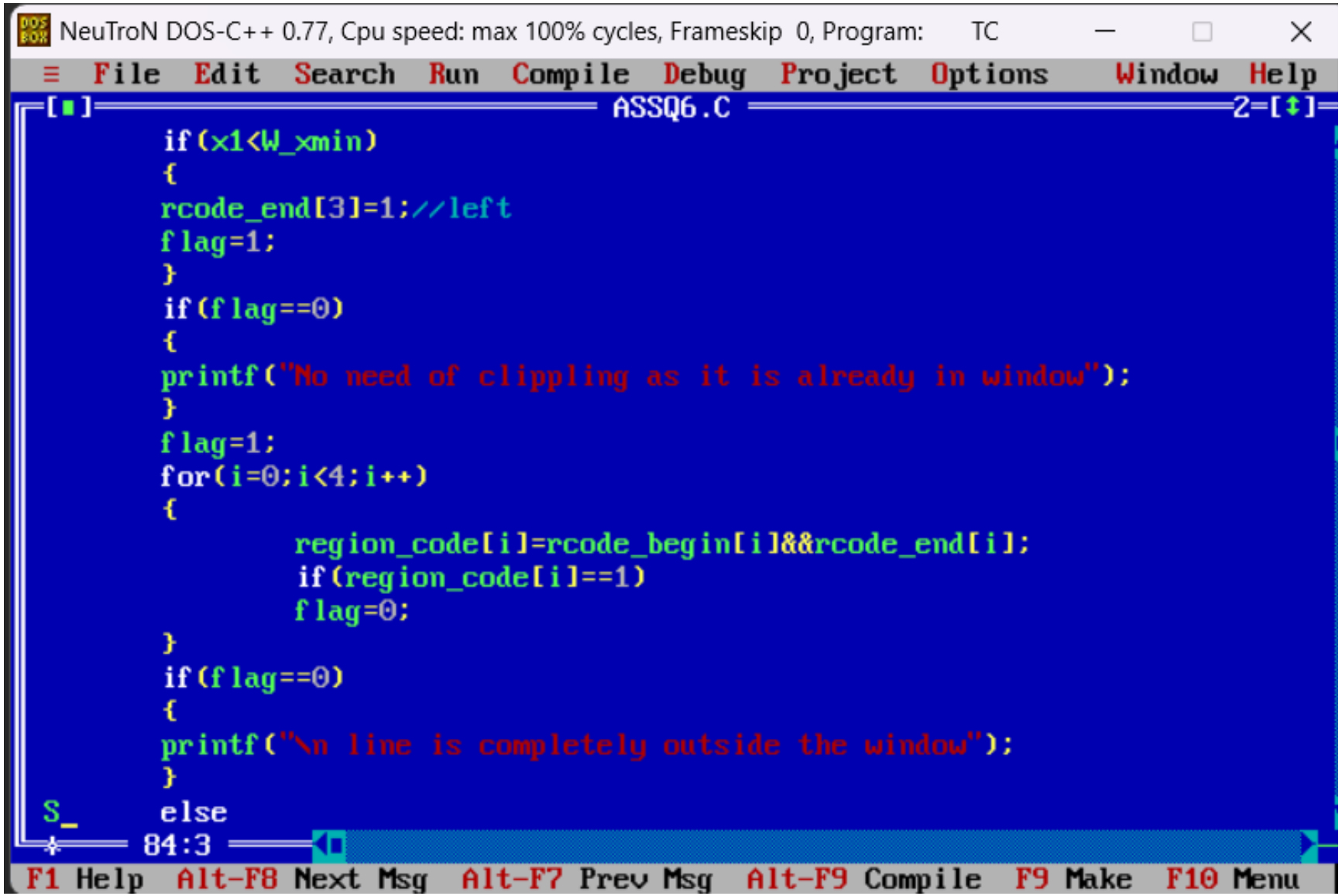
q6

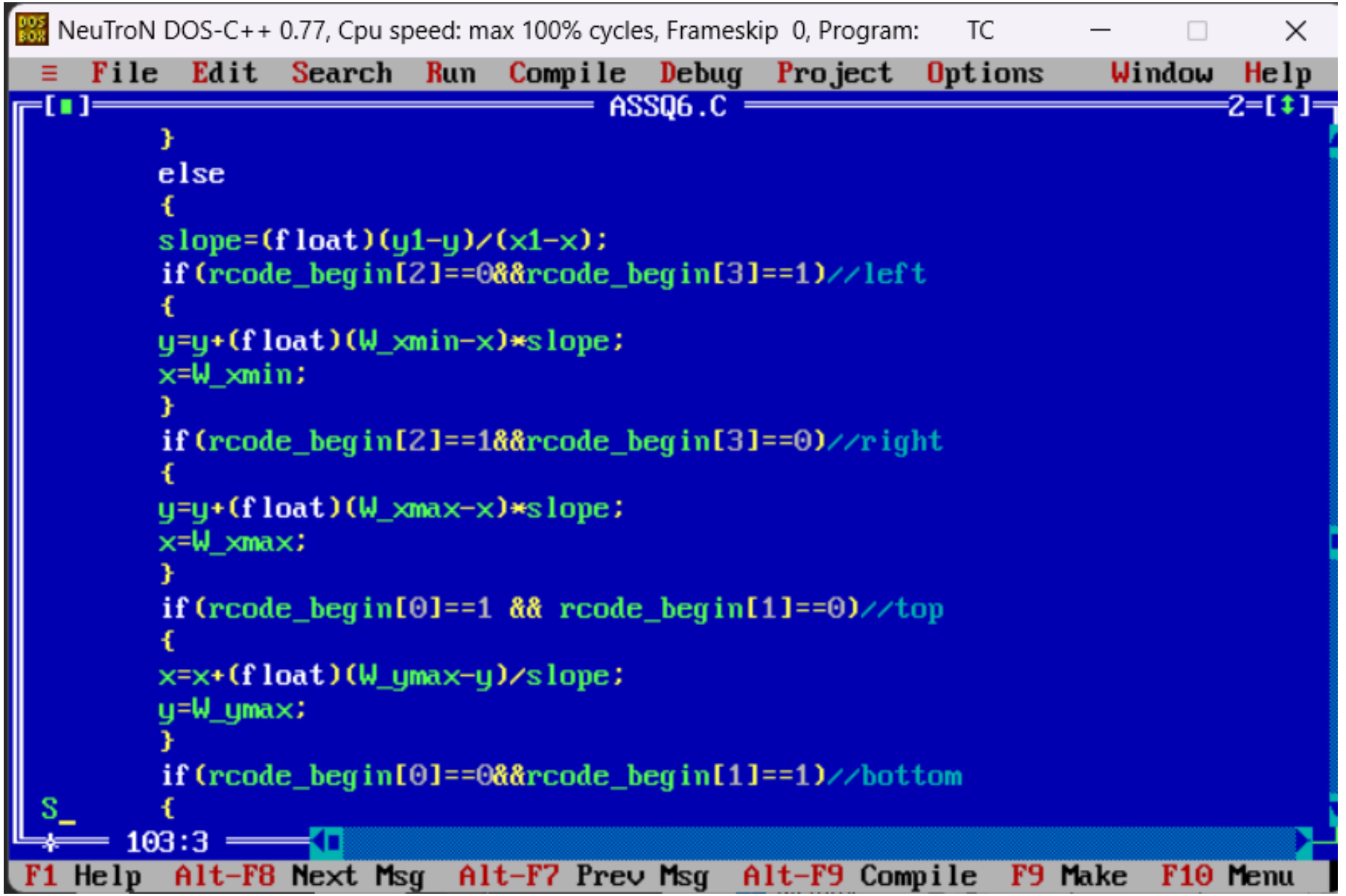

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ6.C
#include<stdio.h>
#include<conio.h>
#include<math.h>
#include<graphics.h>
// Name : mamta Chavda
// Roll No : 3100
// Div : B
void main()
{
int rcode_begin[4]={0,0,0,0},rcode_end[4]={0,0,0,0},region_code[4];
int W_xmax,W_ymax,W_xmin,W_ymin,flag=0;
float slope;
int x,y,x1,y1,i,xc,yc;
int gr = DETECT,gm;
initgraph(&gr,&gm,"C:\\TURBOC3\\BGI");
printf("\n ****** Cohen Sutherland Line Clipping ALGO");
printf("\n Now Enter XMin ,YMin =");
scanf("%d%d",&W_xmin,&W_ymin);
printf("\n First Enter XMax,YMax :");
scanf("%d%d",&W_xmax,&W_ymax);
printf(" \n Please Enter Initial Point X and Y :");
1:2
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

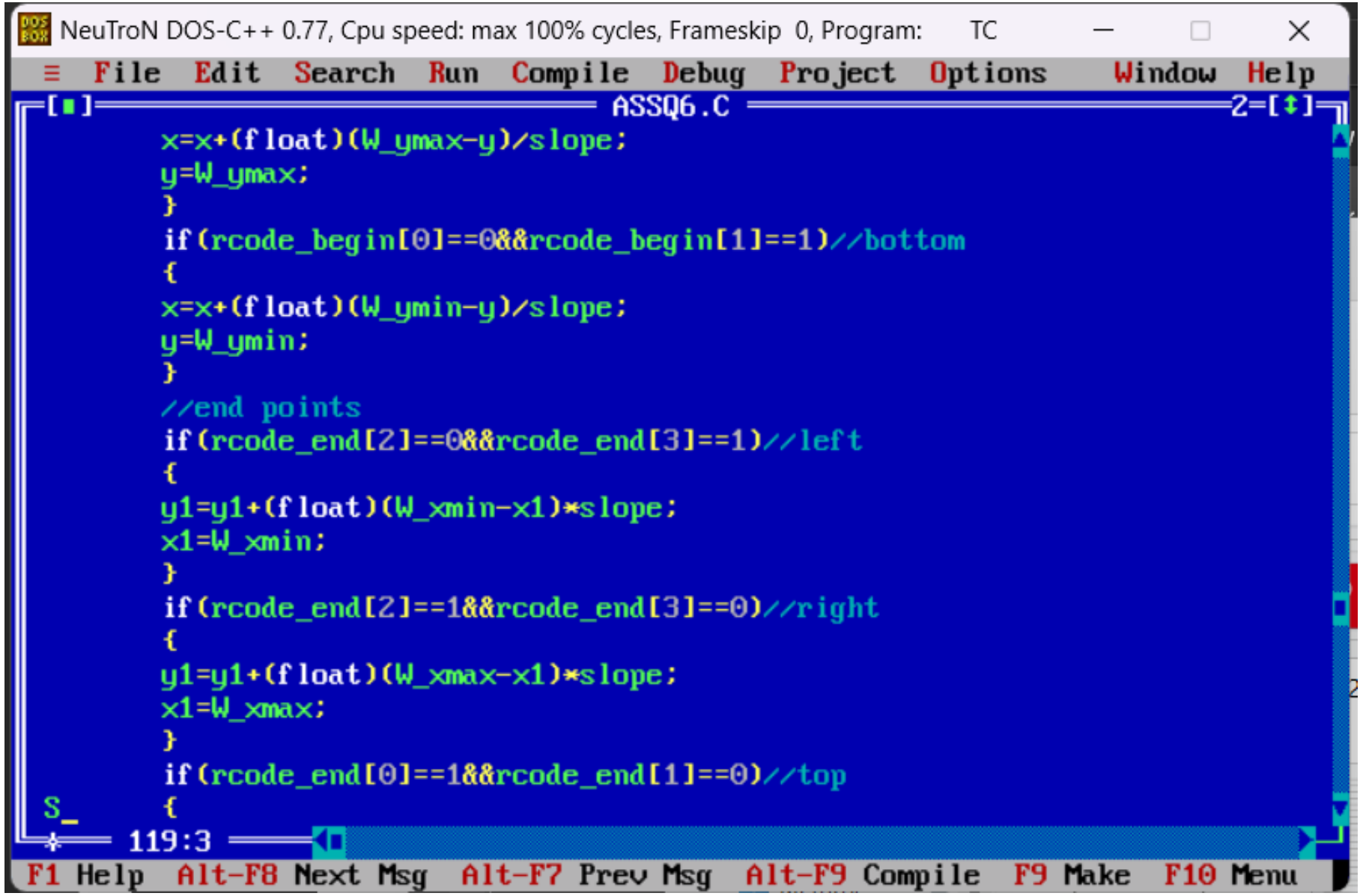

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ6.C
printf("\n ****** Cohen Sutherland Line Clipping ALGO");
printf("\n Now Enter XMin ,YMin =");
scanf("%d%d",&W_xmin,&W_ymin);
printf("\n First Enter XMax,YMax :");
scanf("%d%d",&W_xmax,&W_ymax);
printf(" \n Please Enter Initial Point X and Y :");
scanf("%d%d",&x,&y);
printf("\n Now ENter Final Point x1 and y1 :");
scanf("%d%d",&x1,&y1);
cleardevice();
rectangle(W_xmin,W_ymin,W_xmax,W_ymax);
line(x,y,x1,y1);
if(y>W_ymax)
{
rcode_begin[0]=1;//top
flag=1;
}
if(y<W_ymin)
{
rcode_begin[1]=1;//Bottom
flag=1;
S_
36:3
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

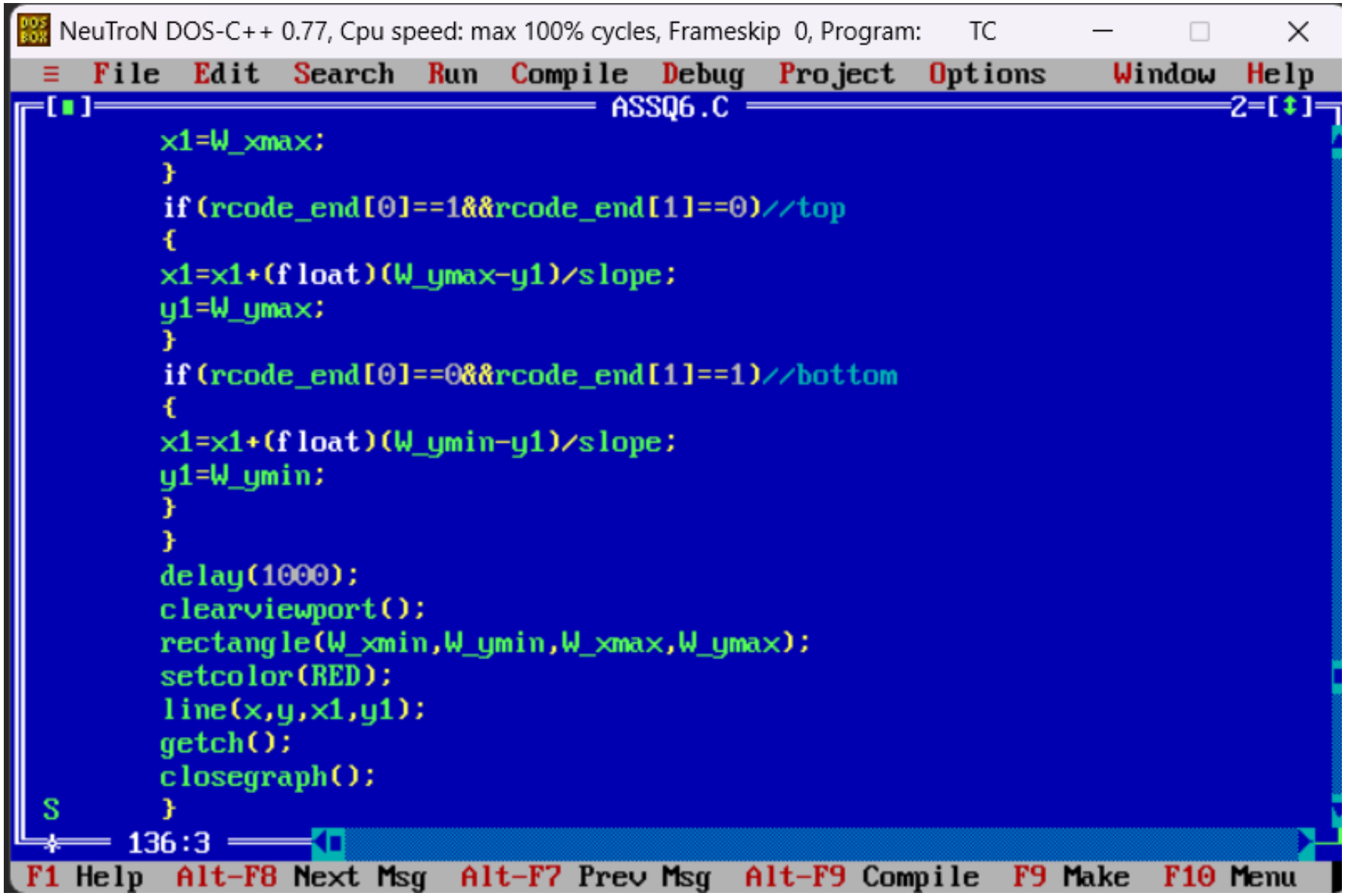

NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ6.C
flag=1;
}
if(x>W_xmax)
{
rcode_begin[2]=1;//right
flag=1;
}
if(x<W_xmin)
{
rcode_begin[3]=1;//left
flag=1;
}
//End point of line
if(y1>W_ymax)
{
rcode_end[0]=1;//top
flag=1;
}
if(y1<W_ymin)
{
rcode_end[1]=1;//bottom
S_
56:3
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options
ASSQ6.C
flag=1;
}
//End point of line
if(y1>W_ymax)
{
rcode_end[0]=1;//top
flag=1;
}
if(y1<W_ymin)
{
rcode_end[1]=1;//bottom
flag=1;
}
if(x1>W_xmax)
{


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ6.C
if(x1<W_xmin)
{
rcode_end[3]=1;//left
flag=1;
}
if(flag==0)
{
printf("No need of clippling as it is already in window");
}
flag=1;
for(i=0;i<4;i++)
{
region_code[i]=rcode_begin[i]&&rcode_end[i];
if(region_code[i]==1)
flag=0;
}
if(flag==0)
{
printf("\n line is completely outside the window");
}
else
84:3
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ6.C
}
else
{
slope=(float)(y1-y)/(x1-x);
if(rcode_begin[2]==0&&rcode_begin[3]==1)//left
{
y=y+(float)(W_xmin-x)*slope;
x=W_xmin;
}
if(rcode_begin[2]==1&&rcode_begin[3]==0)//right
{
y=y+(float)(W_xmax-x)*slope;
x=W_xmax;
}
if(rcode_begin[0]==1 && rcode_begin[1]==0)//top
{
x=x+(float)(W_ymax-y)/slope;
y=W_ymax;
}
if(rcode_begin[0]==0&&rcode_begin[1]==1)//bottom
{
S_
103:3
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ6.C
x=x+(float)(W_ymax-y)/slope;
y=W_ymax;
}
if(rcode_begin[0]==0&&rcode_begin[1]==1)//bottom
{
x=x+(float)(W_ymin-y)/slope;
y=W_ymin;
}
//end points
if(rcode_end[2]==0&&rcode_end[3]==1)//left
{
y1=y1+(float)(W_xmin-x1)*slope;
x1=W_xmin;
}
if(rcode_end[2]==1&&rcode_end[3]==0)//right
{
y1=y1+(float)(W_xmax-x1)*slope;
x1=W_xmax;
}
if(rcode_end[0]==1&&rcode_end[1]==0)//top
{
S_
119:3
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu


NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ASSQ6.C
x1=W_xmax;
}
if(rcode_end[0]==1&&rcode_end[1]==0)//top
{
x1=x1+(float)(W_ymax-y1)/slope;
y1=W_ymax;
}
if(rcode_end[0]==0&&rcode_end[1]==1)//bottom
{
x1=x1+(float)(W_ymin-y1)/slope;
y1=W_ymin;
}
}
delay(1000);
clearviewport();
rectangle(W_xmin,W_ymin,W_xmax,W_ymax);
setcolor(RED);
line(x,y,x1,y1);
getch();
closegraph();
}
136:3
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

output: