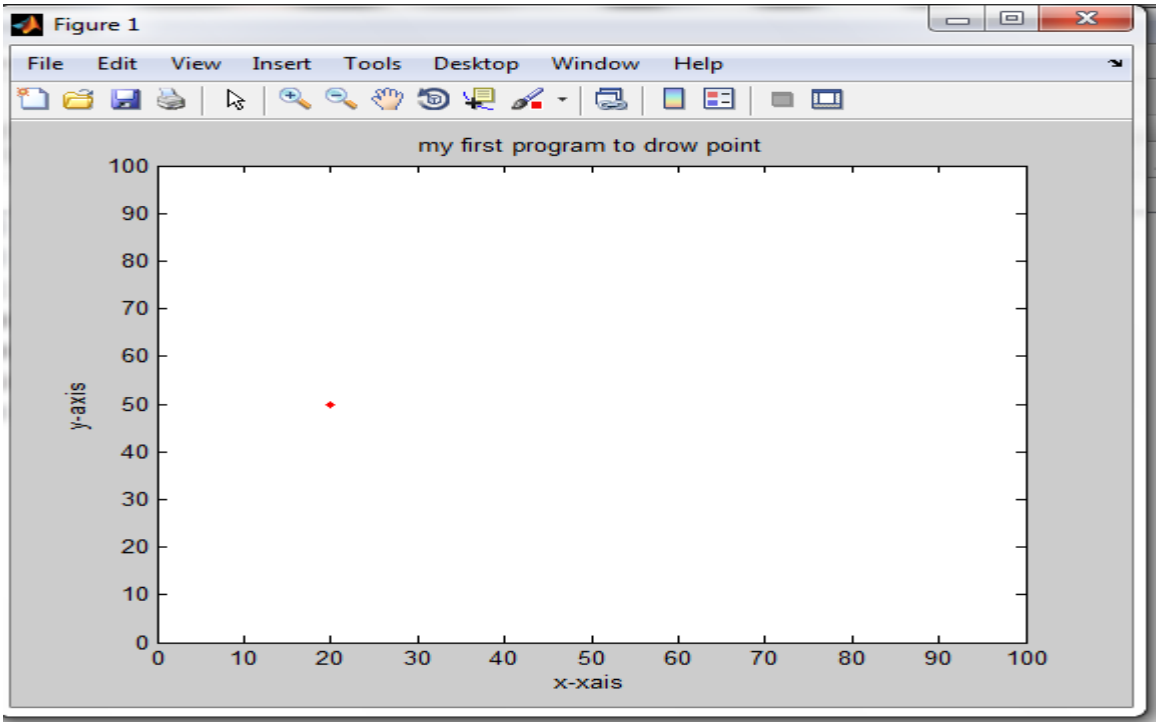
Plotting point

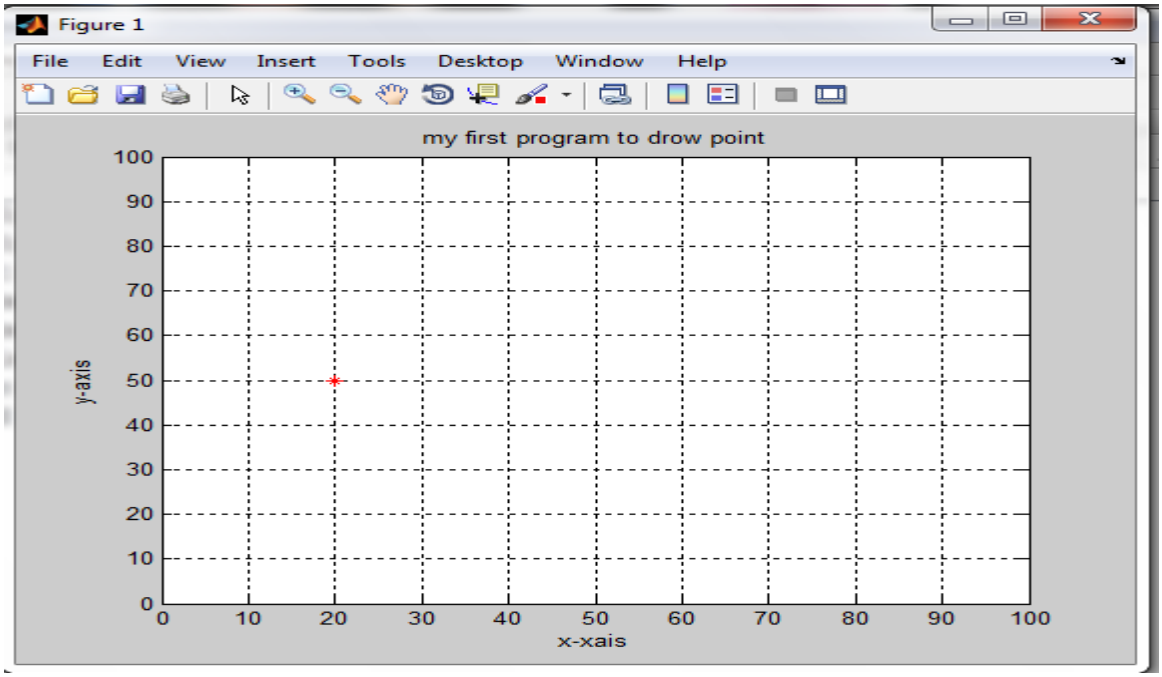
Example : write Matlab program to draw the point(20,50)?

```
clc
clear all
close all
x=20;
y=50;
plot(x,y,'.r')
xlabel('x-axis')
ylabel('y-axis')
title('my first program to draw point')
axis([0 100 0 100])
```



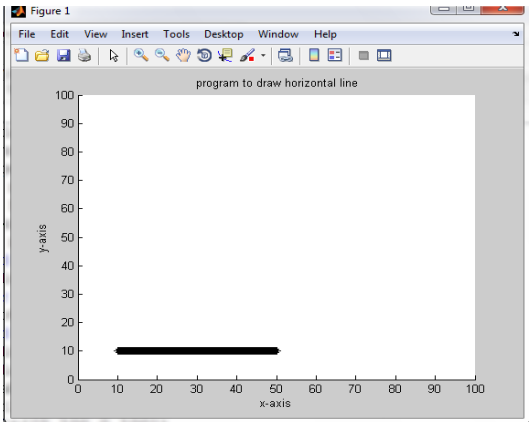
Example : write Matlab program to draw any point?

```
clc
clear all
close all
x=input('enter the value of x');
y=input('enter the value of y);
axis([0 100 0 100])
grid on
plot(x,y,'*r')

xlabel('x-axis') %

ylabel('y-axis')

title('my first program to draw point')
```



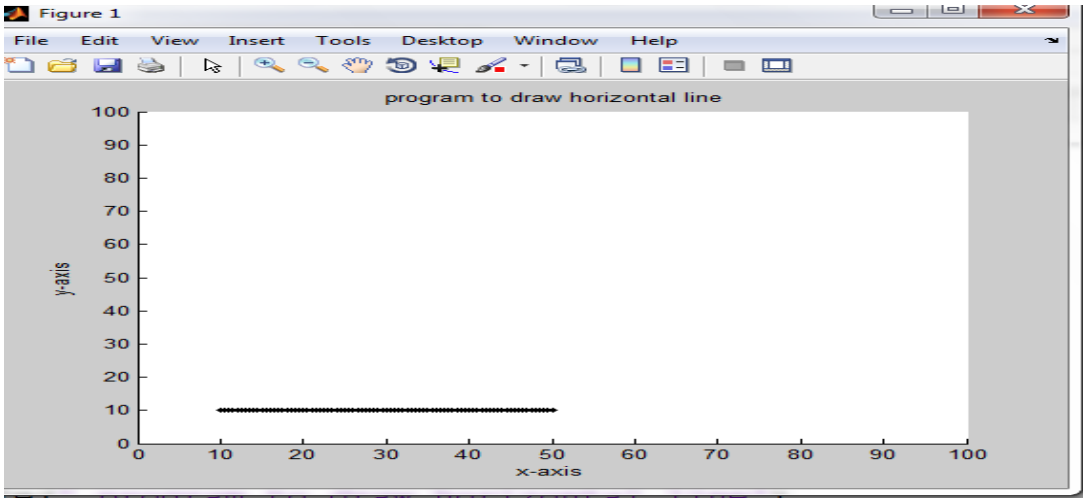
Example: write Matlab program to draw Horizontal line?

```
%this program to draw horizontal line
clc;  clear all;   close all;
x1=input('Enter x-start value: ');
x2=input('Enter x-end value : ');
if x1>x2
    m=x1;
    x1=x2;
    x2=m;
end
y=input('Enter y value : ');


axis([0 100 0 100])
hold on
for x=x1:x2
plot (x,y,'ro')
end
hold  off
xlabel('x-axis');
ylabel('y-axis');
title(' program to draw horizontal line')
```



note:

when we change `for x=xstart :0.5 : xend` the result line is:



Hold

Retain current graph in figure

Syntax

hold on
hold off
hold all
hold
hold(axes_handle,...)

Description

The hold function determines whether new graphics objects are added to the graph or replace objects in the graph. hold toggles the NextPlot property between the add and replace states.

hold on retains the current plot and certain axes properties so that subsequent graphing commands add to the existing graph. If no current axes exist before you call hold on, MATLAB creates new axes and retains the default properties. However, some axes properties change to accommodate additional graphics objects. For example, the axes' limits increase when the data requires them to do so. hold on sets the NextPlot property of the current figure and axes to add.

hold off resets axes properties to their defaults before drawing new plots. hold off is the default. hold off sets the NextPlot property of the current axes to replace.

Example: write Matlab program to draw Vertical line?

```
clc; clear all; close all
y1=input('Enter y-start value: ');
y2=input('Enter y-end value : ');
x=input('Enter x value : ');
if y1>y2
    m=y1;
    y1=y2;
    y2=m;
end
axis ([0 100 0 100])
hold on
for y=y1:y2
     plot (x,y,'bx')
end
```

Example: write Matlab program to draw Diagonal line?

```
clc ; clear all  ;close all
x1=input('Enter x-start value: ');
y1=input('Enter y-start value: ');
x2=input('Enter x-end value : ');
y2=input('Enter y-end value : ');
i=0;
axis([0 100 0 100])
hold on
while (x1+i)<=x2
    plot (x1+i,y1+i,'ro')


    i=i+1;
end
```