Example 1

```
>> A = [1,2,-1;2,-1,1;1,1,-2]

A =

     1     2    -1
     2    -1     1
     1     1    -2

>> b=[4,1,3]

b =

     4     1     3

>> b=[4;1;3]

b =

     4
     1
     3

>> w=inv(A)*b


w =

    1.2500
    1.2500
   -0.2500

>>
```

Solving for x,y,z :

x=1.25 y=1.25 z=-0.25

Example 2

```
>> A

A =

    0.1000    2.3000    3.0000    4.0000
    1.0000    3.0000   -7.0000    5.0000
    3.0000    2.0000    7.0000         0
    1.0000    2.0000    1.0000   10.0000
```

```
>> b = [1;2;3;0]

b =

     1
     2
     3
     0

>> x = inv(A)*b

x =

    0.5099
    0.8015
   -0.0189
   -0.2094
```

Example 3

```
>> p=[2, 3, 5];x=roots(p)

x =

  -0.7500 + 1.3919i
  -0.7500 - 1.3919i
```

Example 4

```
>> q=[4,0,15,2,8,3,1];x=roots(q)

x =

    0.0513 + 1.7716i
    0.0513 - 1.7716i
    0.1685 + 0.7845i
    0.1685 - 0.7845i
   -0.2198 + 0.2744i
   -0.2198 - 0.2744i

>> p=[1,2,3,0,5,12,0,7,4];x=roots(p)

x =

  -1.2386 + 1.7164i
  -1.2386 - 1.7164i
```

```
 -1.4522 + 0.0000i
  0.9207 + 0.9937i
  0.9207 - 0.9937i
  0.2683 + 0.8217i
  0.2683 - 0.8217i
 -0.4484 + 0.0000i
```

Example 5

THis example shows that after the end of a line we mut end it with ';' or it would overwhelm the conole with data
if it is a large output.

```
>> t=[0:  0.05: 4*pi]

t =

  Columns 1 through 6

         0     0.0500     0.1000     0.1500     0.2000     0.2500

  Columns 7 through 12

     0.3000     0.3500     0.4000     0.4500     0.5000     0.5500

  ...

    11.7000    11.7500    11.8000    11.8500    11.9000    11.9500

  Columns 241 through 246

    12.0000    12.0500    12.1000    12.1500    12.2000    12.2500

  Columns 247 through 252

    12.3000    12.3500    12.4000    12.4500    12.5000    12.5500

>> y=sin(t)

y =

  Columns 1 through 6

         0     0.0500     0.0998     0.1494     0.1987     0.2474

  Columns 7 through 12

     0.2955     0.3429     0.3894     0.4350     0.4794     0.5227

  Columns 13 through 18
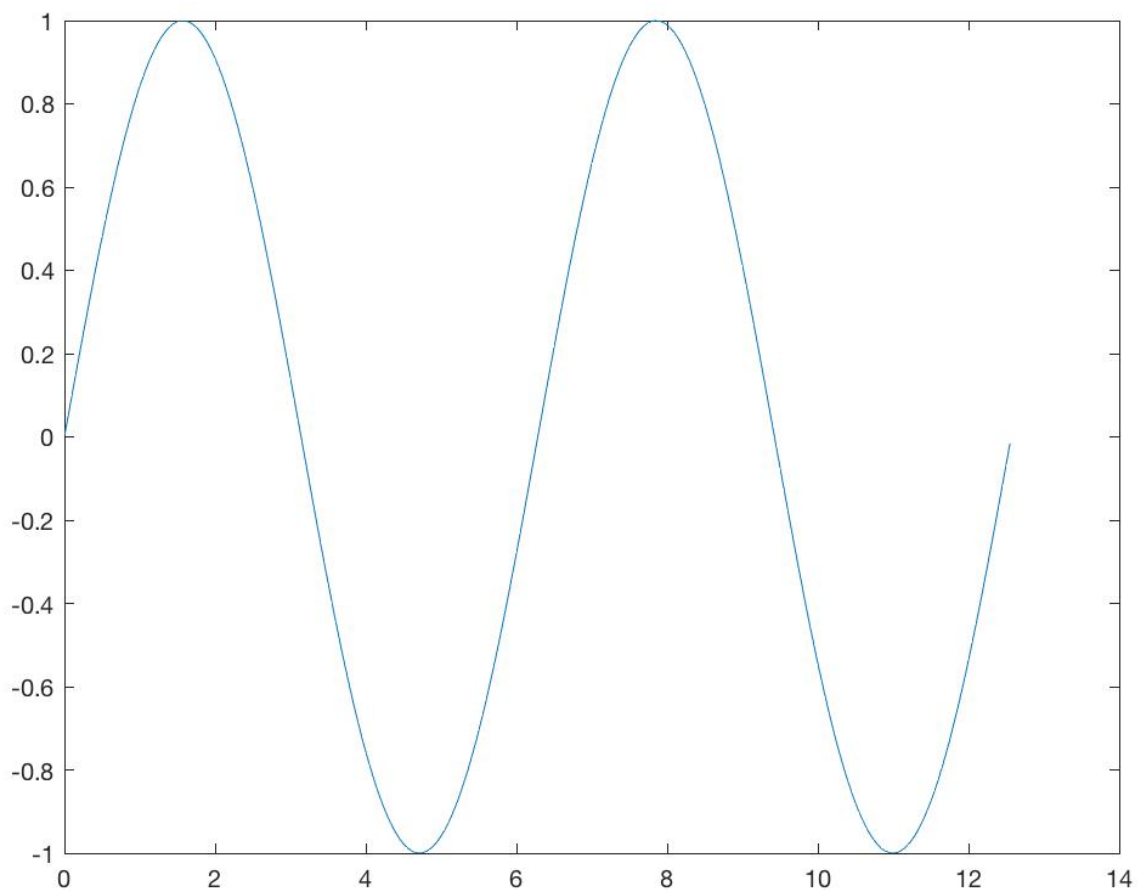```

```
    0.5646     0.6052     0.6442     0.6816     0.7174     0.7513

  ...
   -0.5366    -0.4937    -0.4496    -0.4044    -0.3582    -0.3111

  Columns 247 through 252

   -0.2632    -0.2147    -0.1656    -0.1161    -0.0663    -0.0164

>> plot(y)
>>
```

When the commands are executed with a semicolon the output is hidden.
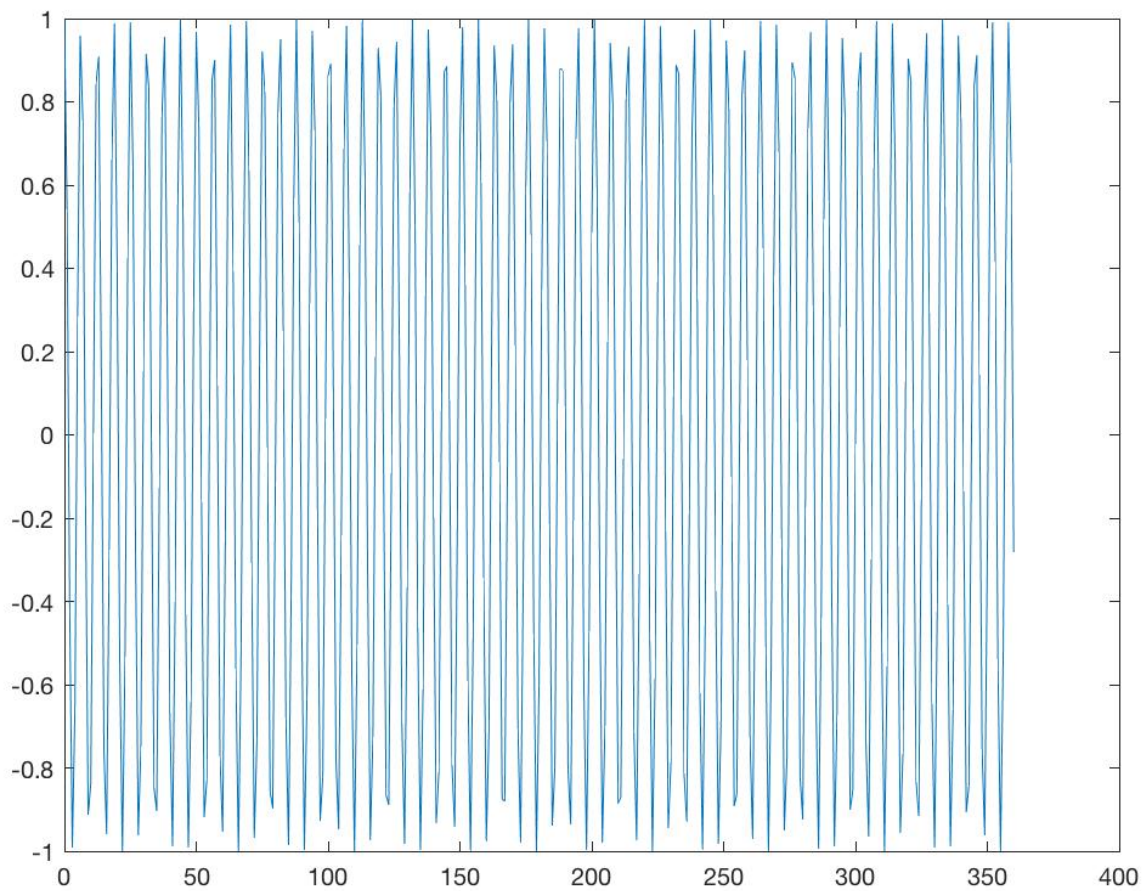
```
>> t=[0:  0.05: 4*pi];y=sin(t);plot (t,y)
```

Output Plot :

Example 6

```
>> alfa = [0:1:360];z=cos(alfa);plot (alfa,z)
```

Output Plot :

Example 7

A trigplot.m file was created with the following code :

```
m=linspace(0, 2*pi, 30);y=sin(m);z=cos(m);plot(m,y,m,z), title("graphs #1
and  #2")
```

The file was saved in the working matlab directory and ran by typing the following int he command line :

```
>> trigplot
>>
```

Output Plot :