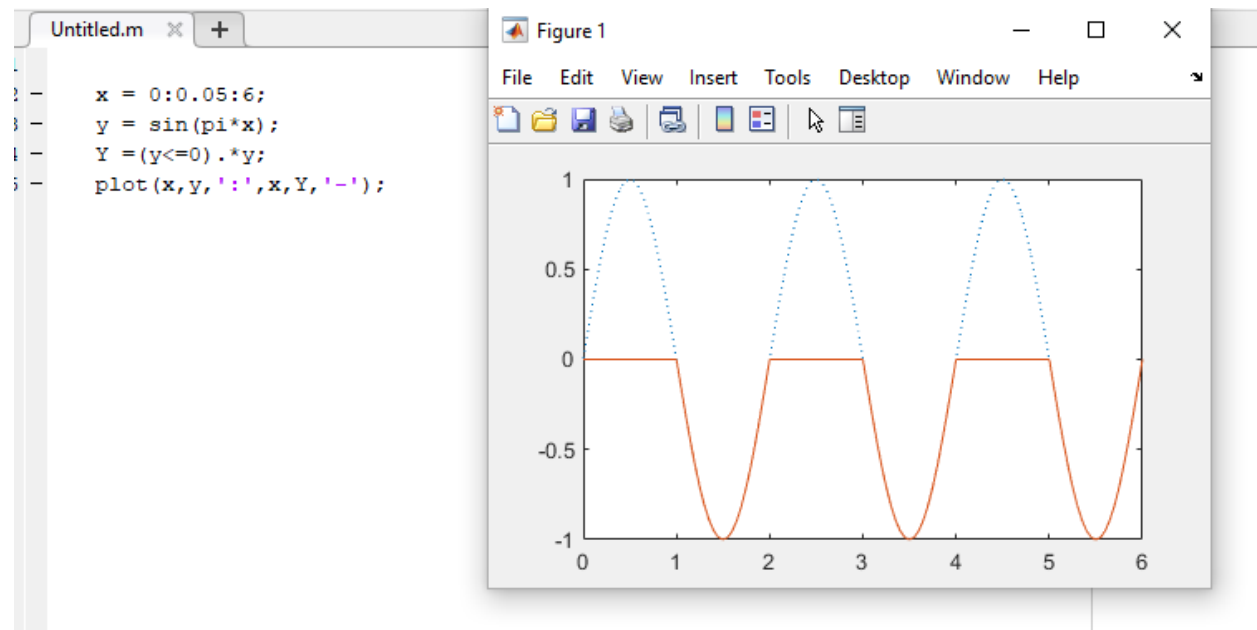


Lab 3

Exercise 3.1



Exercise 3.2

```
Untitled.m  X  +
1 - S = zeros(200,1);
2 - S(20)=sum(1./(1:20).^2);
3 - for n=21:200
4 -     S(n)=S(n-1)+1/n^2;
5 - end
6 - [(198:200)' S(198:200)]

Command Window
New to MATLAB? See resources for Getting Started.

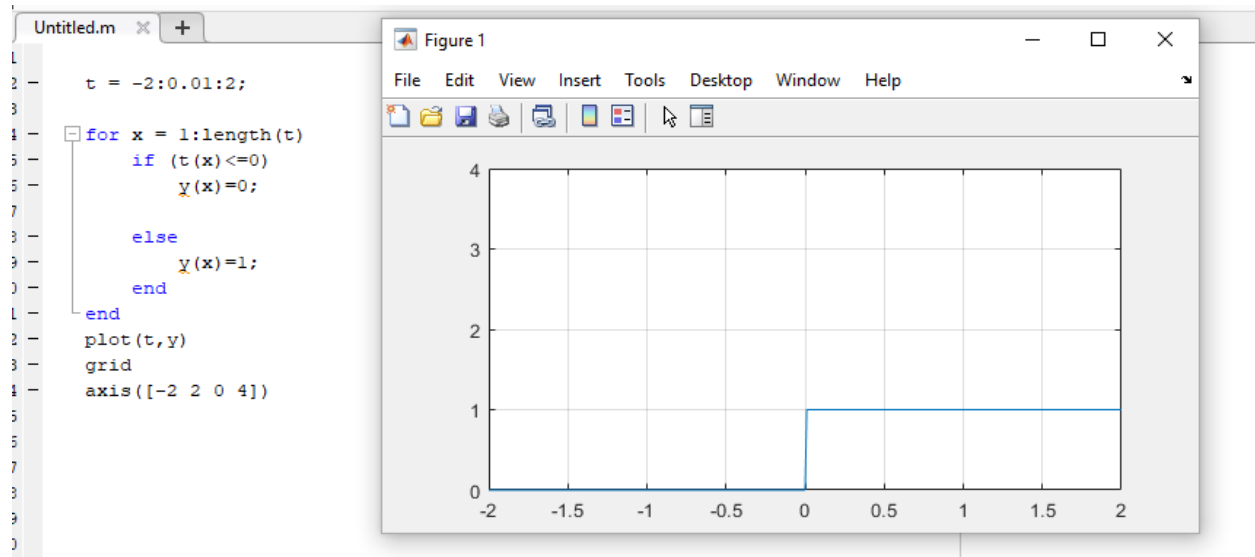
>> Untitled

ans =

    198.0000    1.6399
    199.0000    1.6399
    200.0000    1.6399

fx >>
```

Exercise 3.3



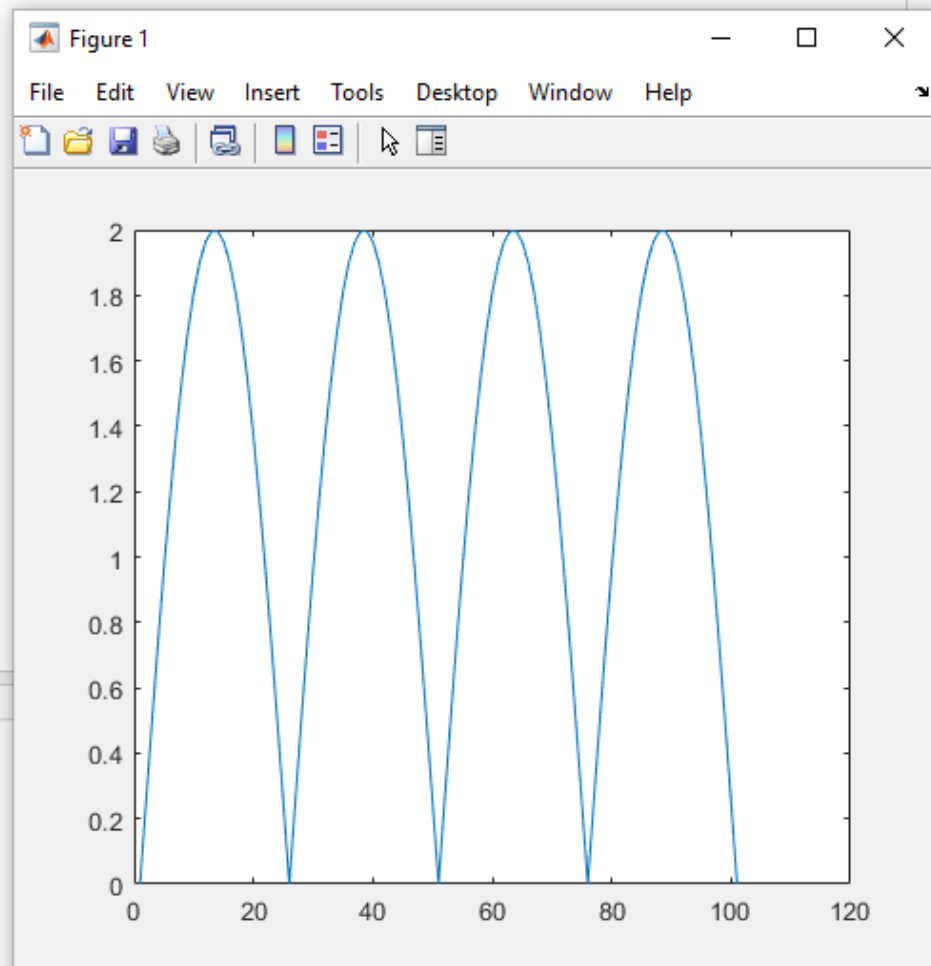
Post Lab Q1

```
- Fr = waveform(A,F,T)  
  T = 0:1e-5:1e-3  
  A = 2  
  F = 2000  
- Fr = waveform(A,F,T)  
- waveform  
- Fr = waveform(A,F,T)  
  clc  
  A= 2  
  F=2000  
  T = 0:1e-5:1e-3  
- Fr = waveform(A,F,T)
```

```
function Fr = waveform(amp,freq,t)

    M = abs(amp*sin(2*pi*freq*t))
    plot(M)

end
```



Command Window

```
> A= 2
```

```
=
```

```
2
```

```
> F=2000
```

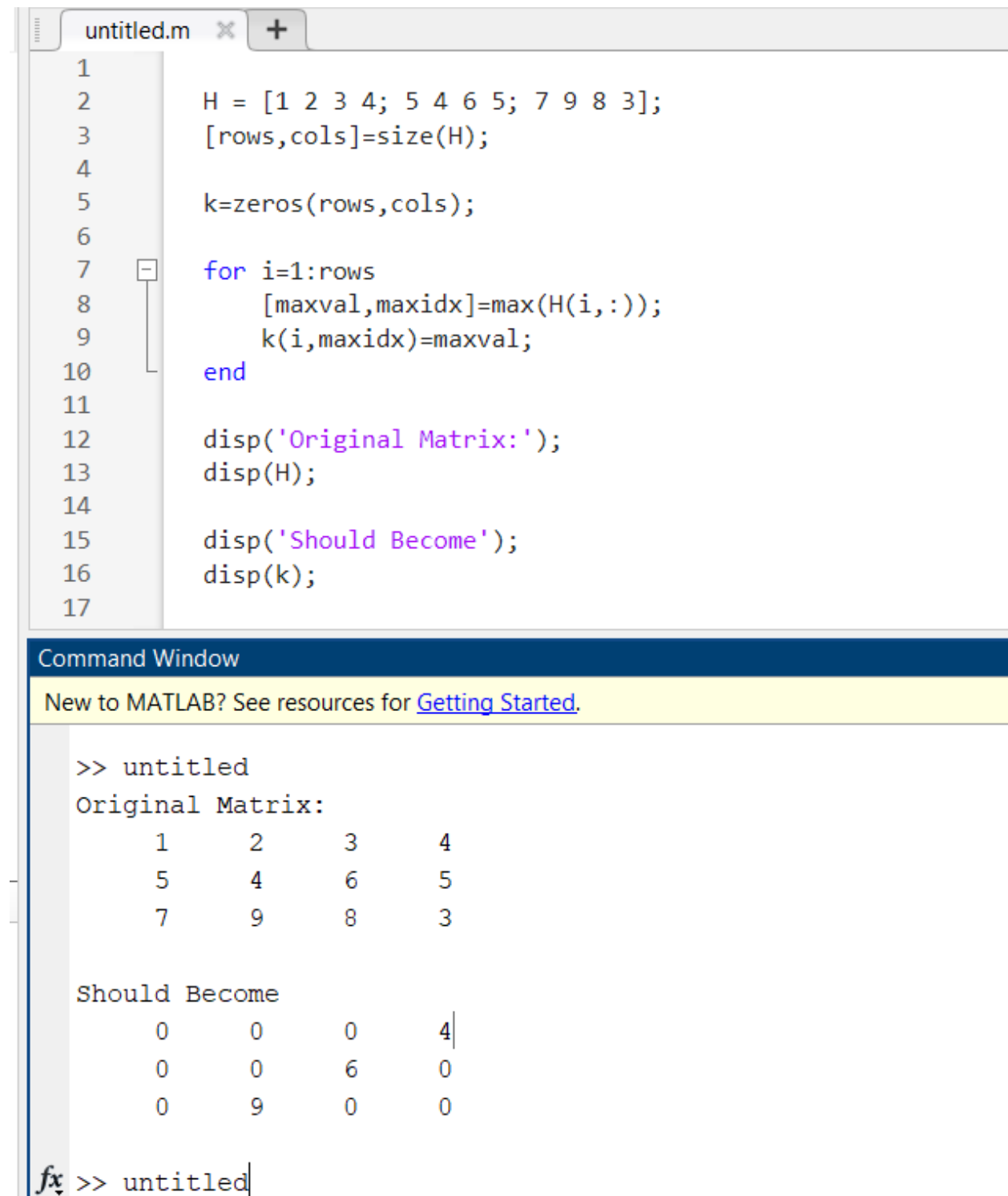
```
=
```

```
2000
```

```
> T = 0:1e-5:1e-3
```

```
=
```

Post Lab Q2



The image shows a MATLAB environment with a script editor and a command window. The script in the editor defines a 3x4 matrix H, calculates its dimensions, creates a zero matrix k of the same size, and then uses a for loop to find the maximum value in each row of H and store it in the corresponding element of k. The command window shows the output of the script, displaying the original matrix H and the resulting vector k.

```
1
2 H = [1 2 3 4; 5 4 6 5; 7 9 8 3];
3 [rows,cols]=size(H);
4
5 k=zeros(rows,cols);
6
7 for i=1:rows
8     [maxval,maxidx]=max(H(i,:));
9     k(i,maxidx)=maxval;
10 end
11
12 disp('Original Matrix:');
13 disp(H);
14
15 disp('Should Become');
16 disp(k);
17
```

Command Window

New to MATLAB? See resources for [Getting Started](#).

```
>> untitled
Original Matrix:
     1     2     3     4
     5     4     6     5
     7     9     8     3

Should Become
     0     0     0     4
     0     0     6     0
     0     9     0     0

fx >> untitled
```