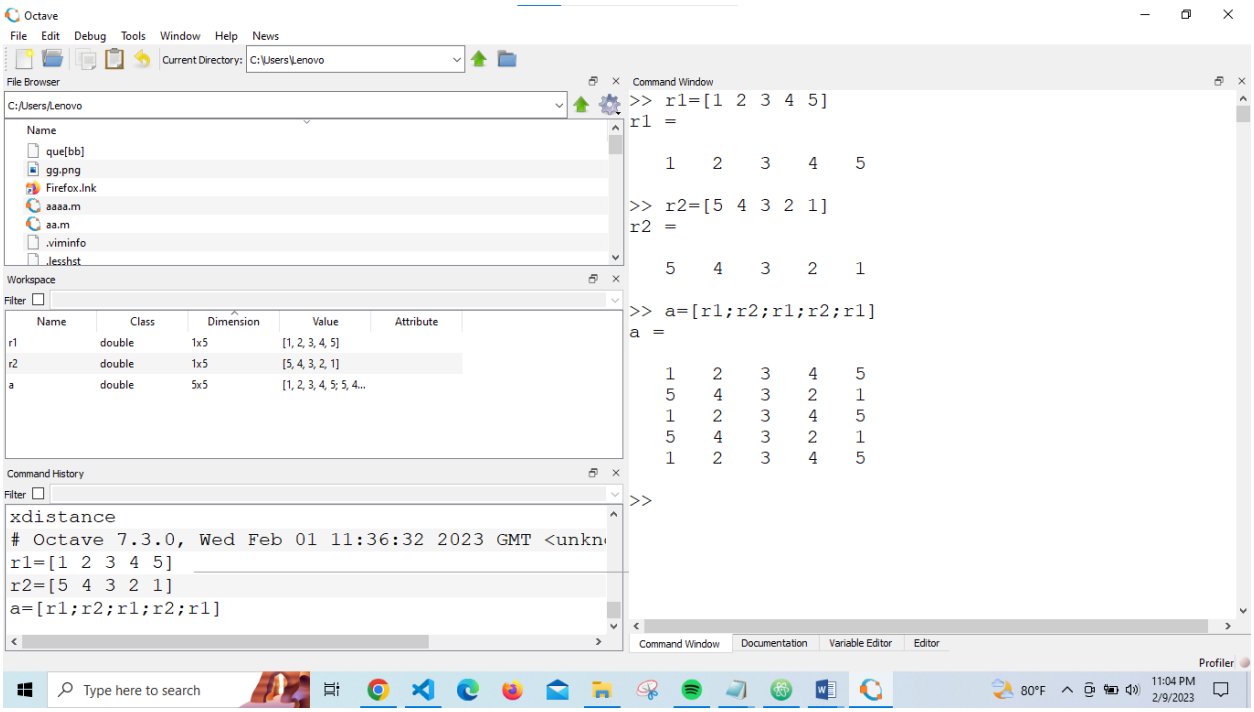
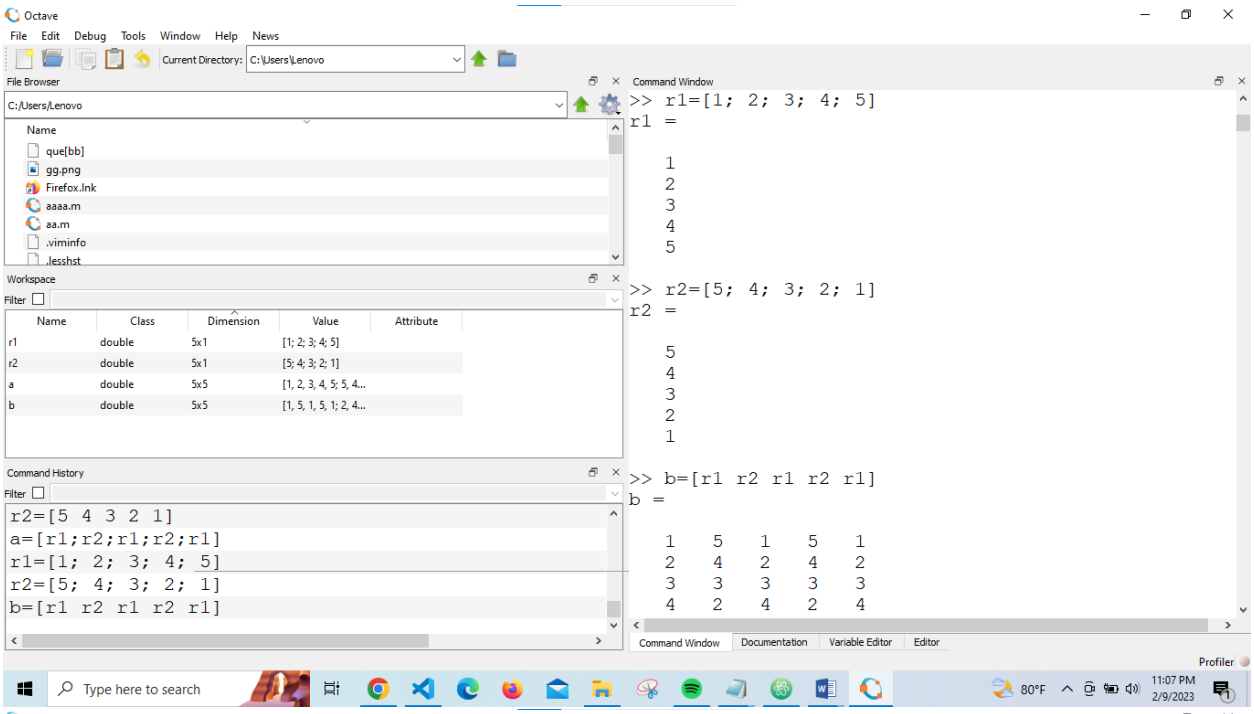
# SCS2211 - LABORATORY II Practical – 09

## 01.(a)




## (b)


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension Value Attribute
r1 double 5x1 [1; 2; 3; 4; 5]
r2 double 5x1 [5; 4; 3; 2; 1]
a double 5x5 [1, 2, 3, 4, 5; 5, 4...
b double 5x5 [1, 5, 1, 5, 1; 2, 4...
Command History
Filter
r2=[5 4 3 2 1]
a=[r1;r2;r1;r2;r1]
r1=[1; 2; 3; 4; 5]
r2=[5; 4; 3; 2; 1]
b=[r1 r2 r1 r2 r1]
Command Window
>> r1=[1; 2; 3; 4; 5]
r1 =
1
2
3
4
5
>> r2=[5; 4; 3; 2; 1]
r2 =
5
4
3
2
1
>> b=[r1 r2 r1 r2 r1]
b =
1 5 1 5 1
2 4 2 4 2
3 3 3 3 3
4 2 4 2 4
Command Window Documentation Variable Editor Editor
Profiler
Type here to search
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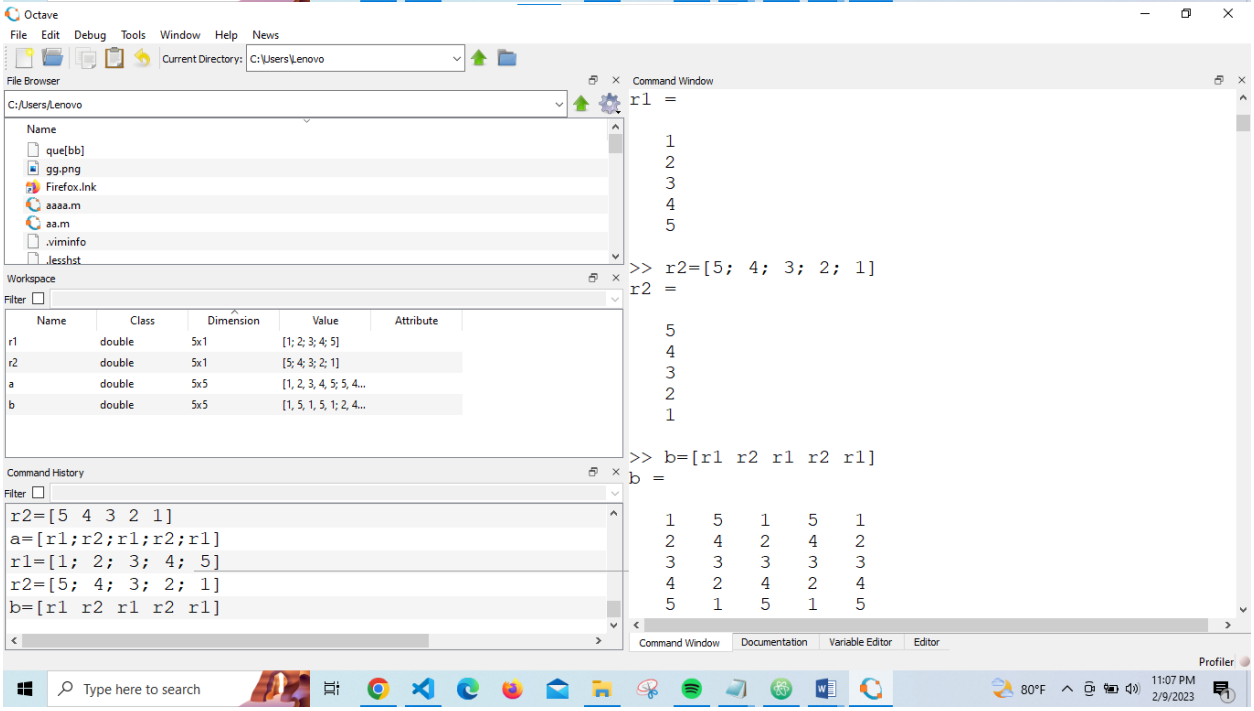
11:07 PM
2/9/2023


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension Value Attribute
r1 double 5x1 [1; 2; 3; 4; 5]
r2 double 5x1 [5; 4; 3; 2; 1]
a double 5x5 [1, 2, 3, 4, 5; 5, 4...
b double 5x5 [1, 5, 1, 5, 1; 2, 4...
Command History
Filter
r2=[5 4 3 2 1]
a=[r1;r2;r1;r2;r1]
r1=[1; 2; 3; 4; 5]
r2=[5; 4; 3; 2; 1]
b=[r1 r2 r1 r2 r1]
Command Window
r1 =
1
2
3
4
5
>> r2=[5; 4; 3; 2; 1]
r2 =
5
4
3
2
1
>> b=[r1 r2 r1 r2 r1]
b =
1 5 1 5 1
2 4 2 4 2
3 3 3 3 3
4 2 4 2 4
5 1 5 1 5
Command Window Documentation Variable Editor Editor
Profiler
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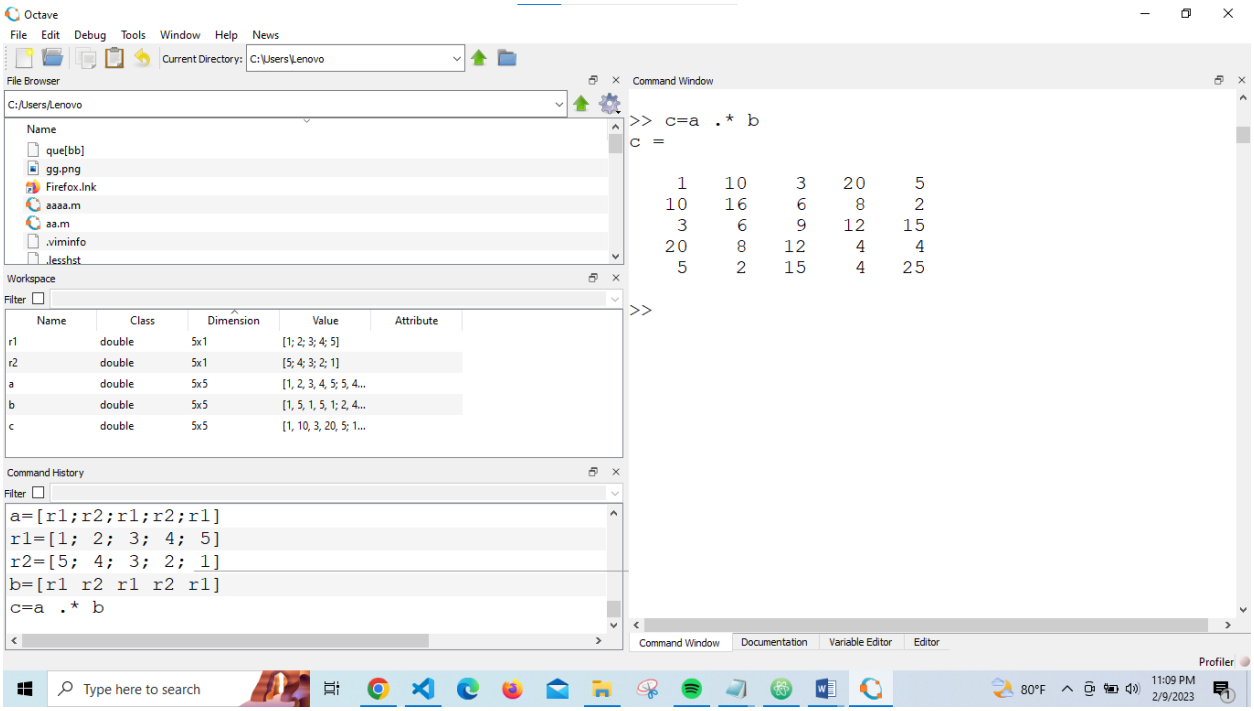
# 02. (a)


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension Value Attribute
r1 double 5x1 [1; 2; 3; 4; 5]
r2 double 5x1 [5; 4; 3; 2; 1]
a double 5x5 [1, 2, 3, 4, 5; 5, 4...
b double 5x5 [1, 5, 1, 5, 1; 2, 4...
c double 5x5 [1, 10, 3, 20, 5; 1...
Command History
Filter
a=[r1;r2;r1;r2;r1]
r1=[1; 2; 3; 4; 5]
r2=[5; 4; 3; 2; 1]
b=[r1 r2 r1 r2 r1]
c=a .* b
Command Window
>> c=a .* b
c =
1 10 3 20 5
10 16 6 8 2
3 6 9 12 15
20 8 12 4 4
5 2 15 4 25
>>
Command Window Documentation Variable Editor Editor
Profiler
Type here to search
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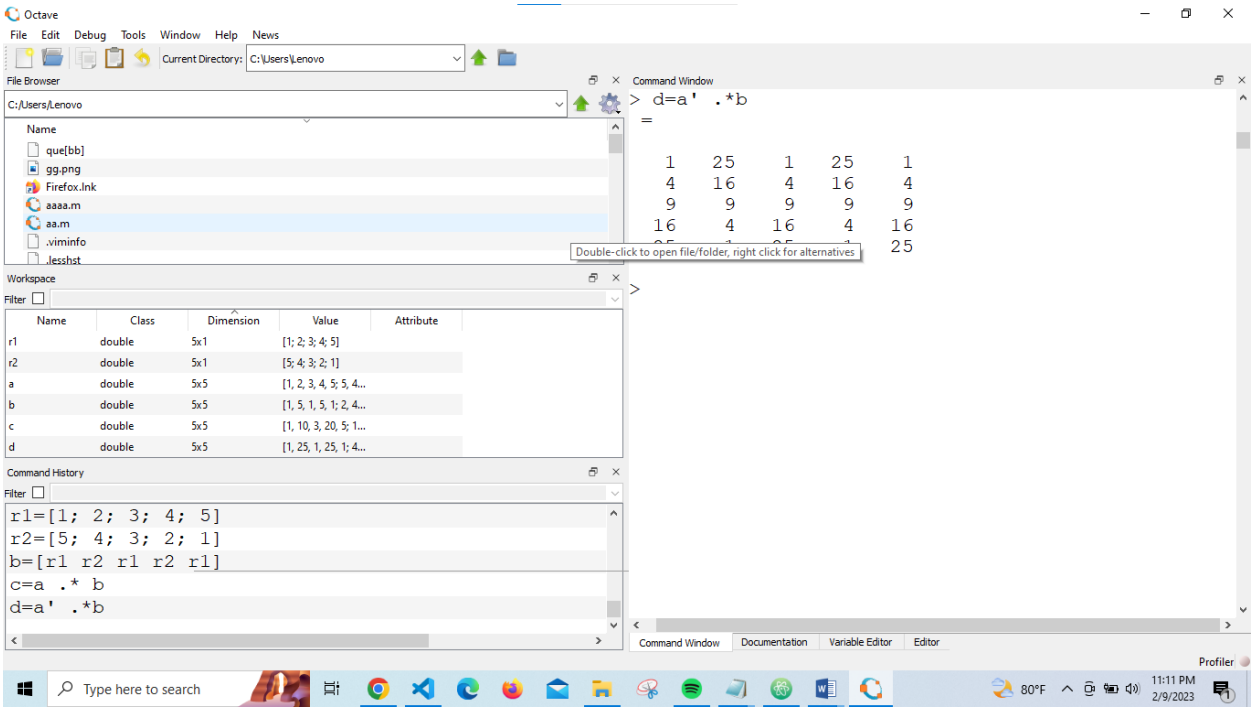
# (b)


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Double-click to open file/folder, right click for alternatives
Workspace
Filter
Name Class Dimension Value Attribute
r1 double 5x1 [1; 2; 3; 4; 5]
r2 double 5x1 [5; 4; 3; 2; 1]
a double 5x5 [1, 2, 3, 4, 5; 5, 4...
b double 5x5 [1, 5, 1, 5, 1; 2, 4...
c double 5x5 [1, 10, 3, 20, 5; 1...
d double 5x5 [1, 25, 1, 25, 1; 4...
Command History
Filter
r1=[1; 2; 3; 4; 5]
r2=[5; 4; 3; 2; 1]
b=[r1 r2 r1 r2 r1]
c=a .* b
d=a' .*b
Command Window
> d=a' .*b
=
1 25 1 25 1
4 16 4 16 4
9 9 9 9 9
16 4 16 4 16
25
>
Command Window Documentation Variable Editor Editor
Profiler
Type here to search
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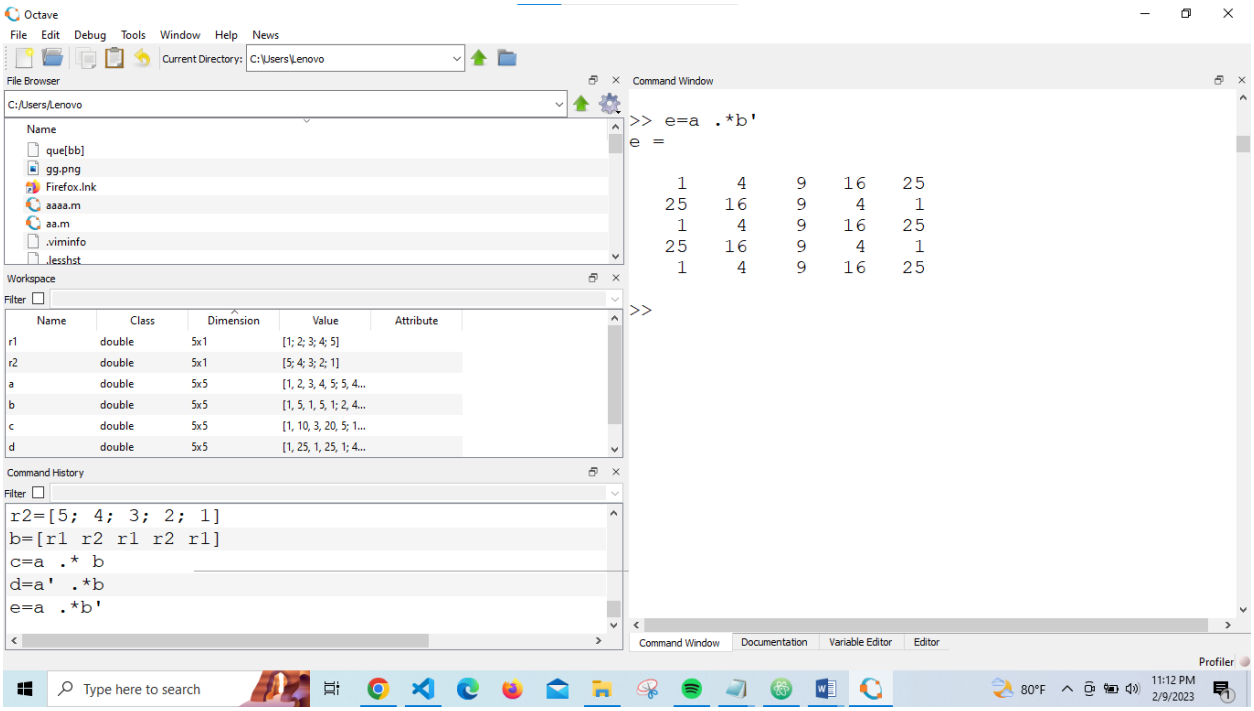
2/9/2023

# (c)


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension Value Attribute
r1 double 5x1 [1; 2; 3; 4; 5]
r2 double 5x1 [5; 4; 3; 2; 1]
a double 5x5 [1, 2, 3, 4, 5; 5, 4...
b double 5x5 [1, 5, 1, 5, 1; 2, 4...
c double 5x5 [1, 10, 3, 20, 5; 1...
d double 5x5 [1, 25, 1, 25, 1; 4...
Command History
Filter
r2=[5; 4; 3; 2; 1]
b=[r1 r2 r1 r2 r1]
c=a .* b
d=a' .*b
e=a .*b'
Command Window
>> e=a .*b'
e =
1 4 9 16 25
25 16 9 4 1
1 4 9 16 25
25 16 9 4 1
1 4 9 16 25
>>
Command Window Documentation Variable Editor Editor
Profiler
Type here to search
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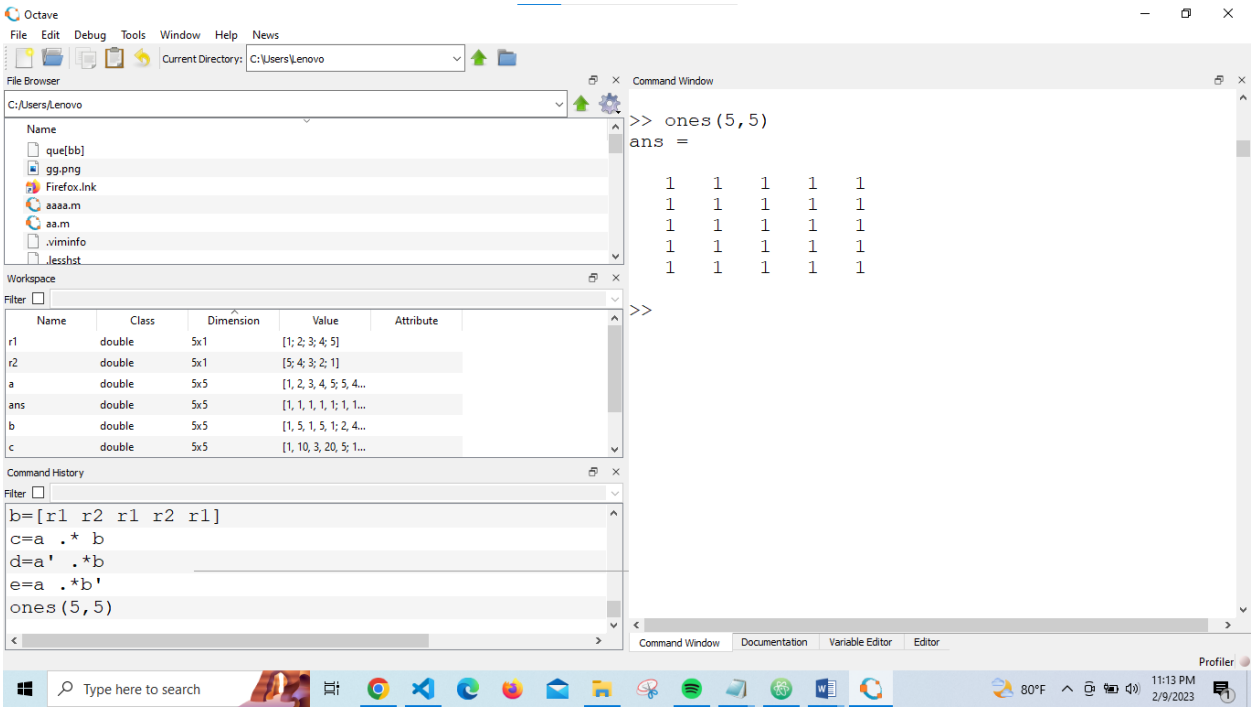
# 03.

# (a)


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension Value Attribute
r1 double 5x1 [1; 2; 3; 4; 5]
r2 double 5x1 [5; 4; 3; 2; 1]
a double 5x5 [1, 2, 3, 4, 5; 5, 4...
ans double 5x5 [1, 1, 1, 1, 1; 1, 1...
b double 5x5 [1, 5, 1, 5, 1; 2, 4...
c double 5x5 [1, 10, 3, 20, 5; 1...
Command History
Filter
b=[r1 r2 r1 r2 r1]
c=a .* b
d=a' .*b
e=a .*b'
ones(5,5)
Command Window
>> ones(5,5)
ans =
1 1 1 1 1
1 1 1 1 1
1 1 1 1 1
1 1 1 1 1
1 1 1 1 1
>>
Command Window Documentation Variable Editor Editor
Profiler
Type here to search
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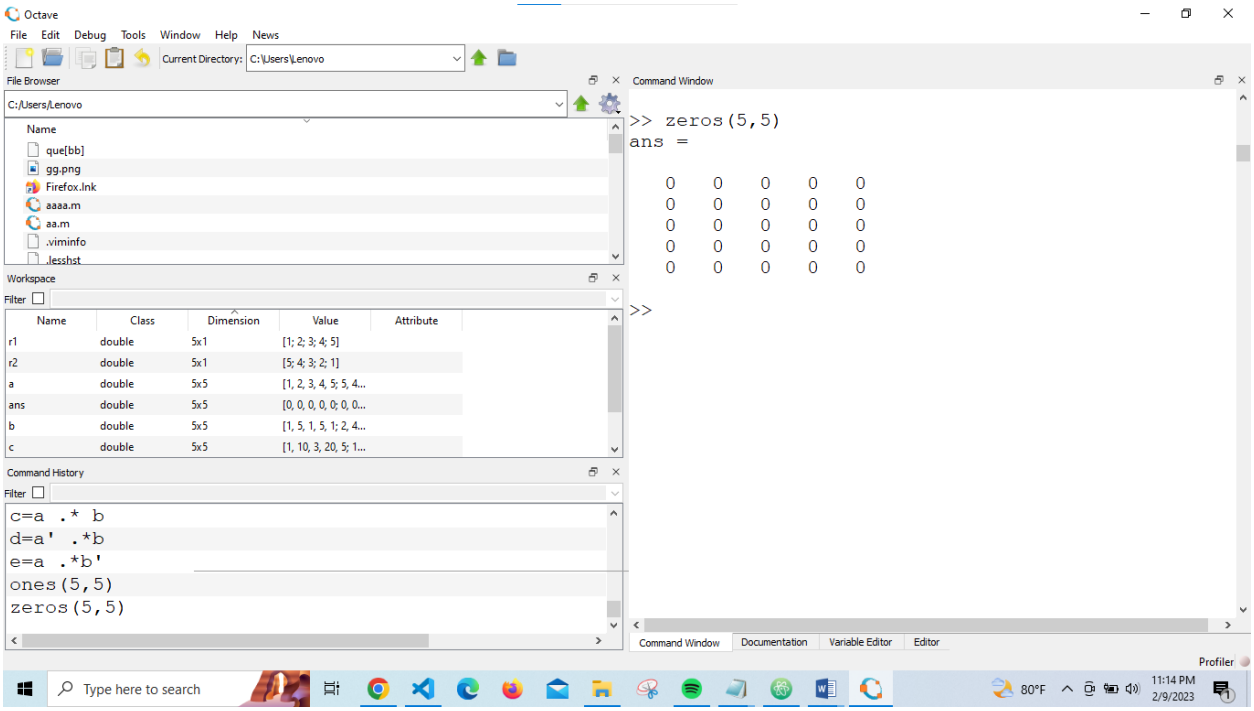
2/9/2023

# (b)


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension Value Attribute
r1 double 5x1 [1; 2; 3; 4; 5]
r2 double 5x1 [5; 4; 3; 2; 1]
a double 5x5 [1, 2, 3, 4, 5; 5, 4...
ans double 5x5 [0, 0, 0, 0, 0; 0, 0...
b double 5x5 [1, 5, 1, 5, 1; 2, 4...
c double 5x5 [1, 10, 3, 20, 5; 1...
Command History
Filter
c=a .* b
d=a' .*b
e=a .*b'
ones(5,5)
zeros(5,5)
Command Window
>> zeros(5,5)
ans =
0 0 0 0 0
0 0 0 0 0
0 0 0 0 0
0 0 0 0 0
0 0 0 0 0
>>
Command Window Documentation Variable Editor Editor
Profiler
Type here to search
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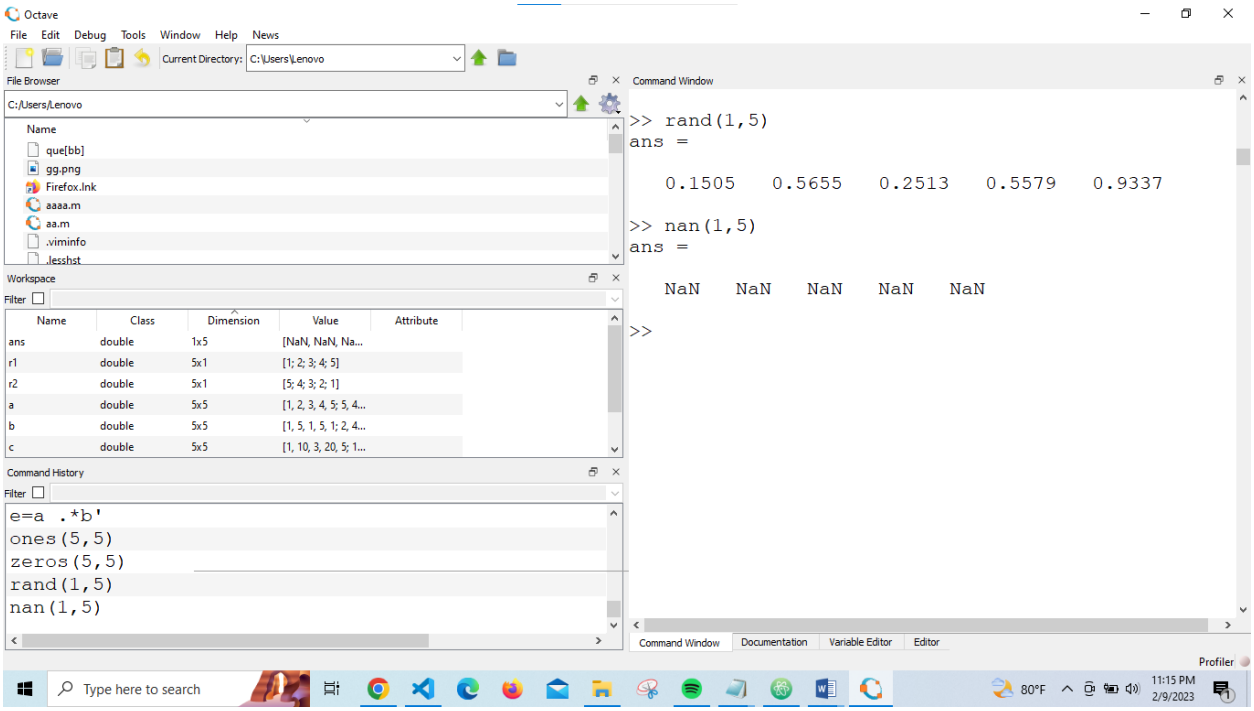
# (c)(d)


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension Value Attribute
ans double 1x5 [NaN, NaN, Na...
r1 double 5x1 [1; 2; 3; 4; 5]
r2 double 5x1 [5; 4; 3; 2; 1]
a double 5x5 [1, 2, 3, 4, 5; 5, 4...
b double 5x5 [1, 5, 1, 5, 1; 2, 4...
c double 5x5 [1, 10, 3, 20, 5; 1...
Command History
Filter
e=a .*b'
ones(5,5)
zeros(5,5)
rand(1,5)
nan(1,5)
Command Window
>> rand(1,5)
ans =
0.1505 0.5655 0.2513 0.5579 0.9337
>> nan(1,5)
ans =
NaN NaN NaN NaN NaN
>>
Command Window Documentation Variable Editor Editor
Profiler
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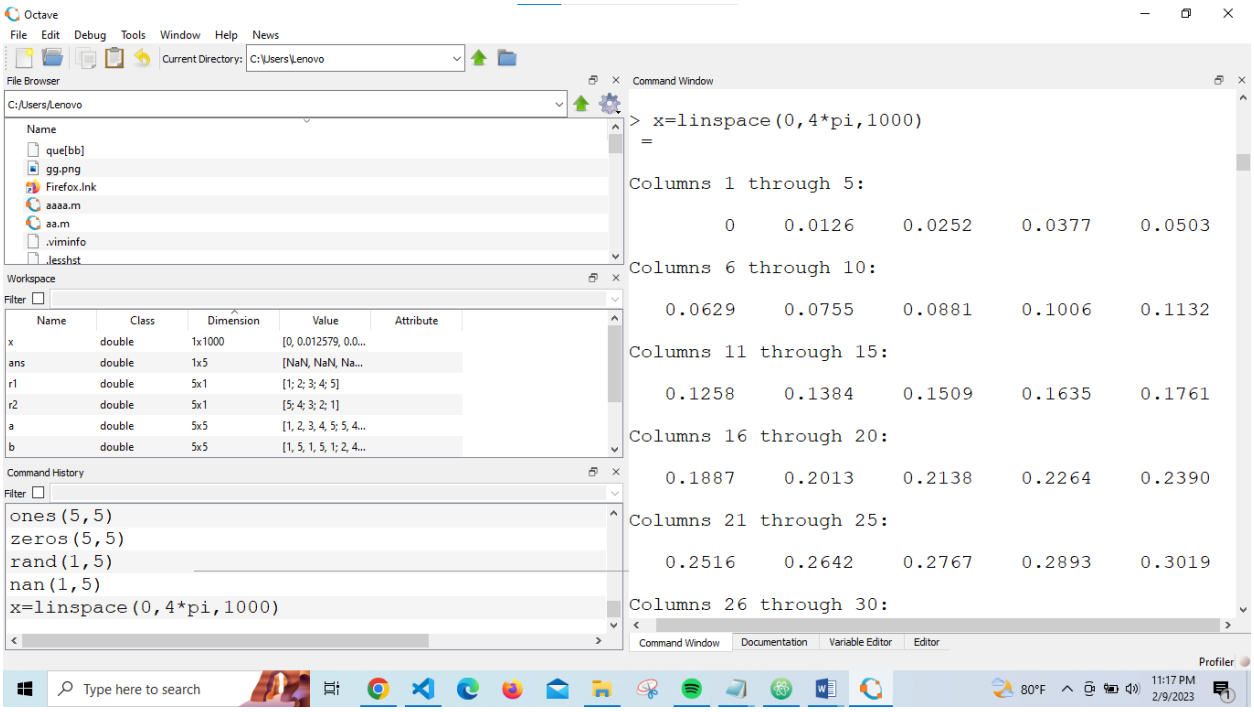
# 04.


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension Value Attribute
x double 1x1000 [0, 0.012579, 0.0...
ans double 1x5 [NaN, NaN, Na...
r1 double 5x1 [1; 2; 3; 4; 5]
r2 double 5x1 [5; 4; 3; 2; 1]
a double 5x5 [1, 2, 3, 4, 5; 5, 4...
b double 5x5 [1, 5, 1, 5, 1; 2, 4...
Command History
Filter
ones(5,5)
zeros(5,5)
rand(1,5)
nan(1,5)
x=linspace(0,4*pi,1000)
Command Window
> x=linspace(0,4*pi,1000)
=
Columns 1 through 5:
0 0.0126 0.0252 0.0377 0.0503
Columns 6 through 10:
0.0629 0.0755 0.0881 0.1006 0.1132
Columns 11 through 15:
0.1258 0.1384 0.1509 0.1635 0.1761
Columns 16 through 20:
0.1887 0.2013 0.2138 0.2264 0.2390
Columns 21 through 25:
0.2516 0.2642 0.2767 0.2893 0.3019
Columns 26 through 30:
Command Window Documentation Variable Editor Editor
Profiler
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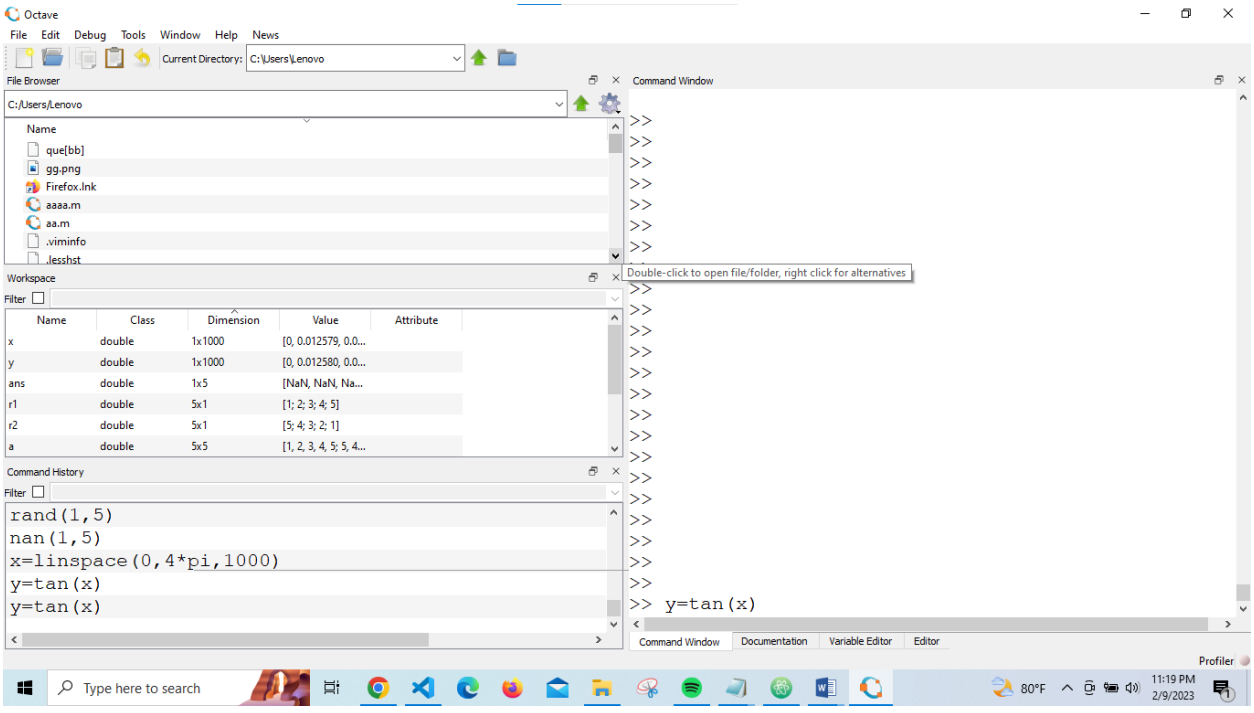
2/9/2023


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension Value Attribute
x double 1x1000 [0, 0.012579, 0.0...
y double 1x1000 [0, 0.012580, 0.0...
ans double 1x5 [NaN, NaN, Na...
r1 double 5x1 [1; 2; 3; 4; 5]
r2 double 5x1 [5; 4; 3; 2; 1]
a double 5x5 [1, 2, 3, 4, 5; 5, 4...
Command History
Filter
rand(1,5)
nan(1,5)
x=linspace(0,4*pi,1000)
y=tan(x)
y=tan(x)
Command Window
>>
Double-click to open file/folder, right click for alternatives
>> y=tan(x)
Command Window Documentation Variable Editor Editor
Profiler
Type here to search
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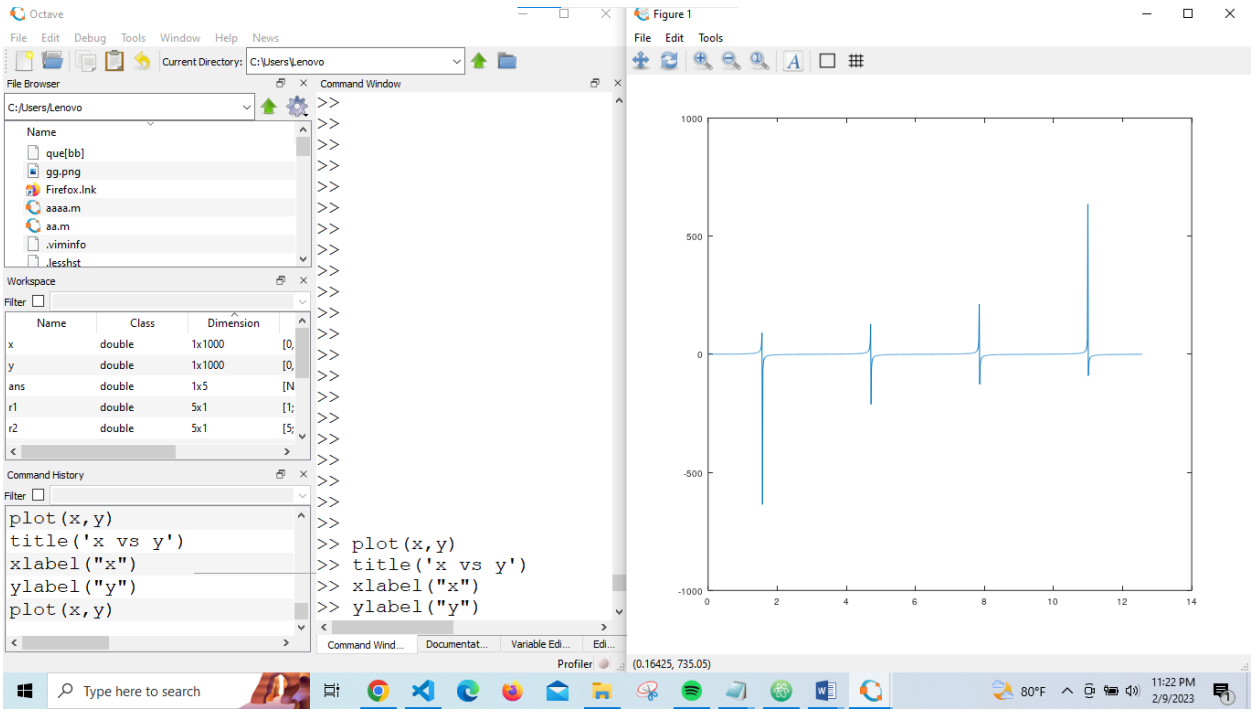
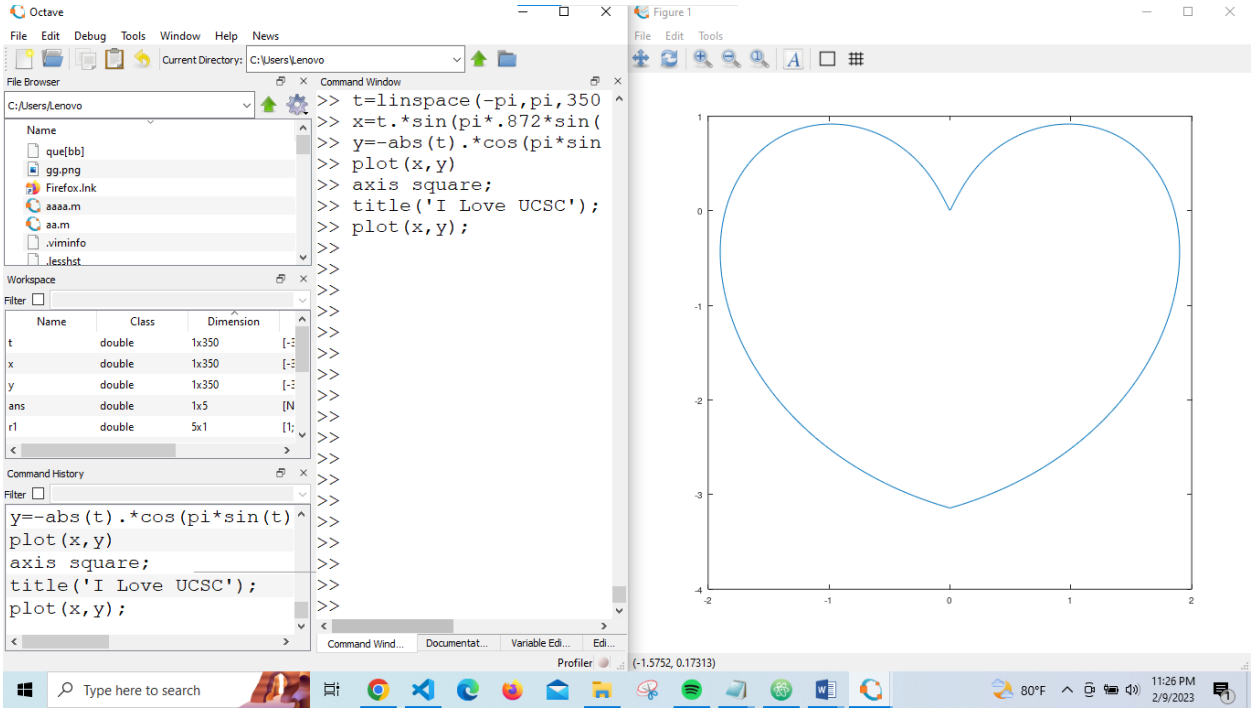
2/9/2023


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension
x double 1x1000
y double 1x1000
ans double 1x5
r1 double 5x1
r2 double 5x1
Command History
plot(x,y)
title('x vs y')
xlabel("x")
ylabel("y")
plot(x,y)
Command Window
>> plot(x,y)
>> title('x vs y')
>> xlabel("x")
>> ylabel("y")
Figure 1
File Edit Tools
1000
500
0
-500
-1000
0 2 4 6 8 10 12 14
(0.16425, 735.05)
Type here to search
80°F
11:22 PM
2/9/2023

# 05.


Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Lenovo
File Browser
C:/Users/Lenovo
Name
que[bb]
gg.png
Firefox.lnk
aaaa.m
aa.m
.viminfo
.lesshst
Workspace
Filter
Name Class Dimension
t double 1x350
x double 1x350
y double 1x350
ans double 1x5
r1 double 5x1
Command History
y=-abs(t).*cos(pi*sin(t)
plot(x,y)
axis square;
title('I Love UCSC');
plot(x,y);
Command Window
>> t=linspace(-pi,pi,350
>> x=t.*sin(pi*.872*sin(
>> y=-abs(t).*cos(pi*sin
>> plot(x,y)
>> axis square;
>> title('I Love UCSC');
>> plot(x,y);
Figure 1
File Edit Tools
1
0
-1
-2
-3
-4
-2 -1 0 1 2
(-1.5752, 0.17313)
Type here to search
80°F
11:26 PM
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