

FINBARRS-EZEMA BERNARD  
16/ENG03/027  
CIVIL ENGINEERING  
ENG 281 ASSIGNMENT 4

1. "clear"- clears the variables in the workspace  
"clc"- clears the variables in the command window

2. COMMANDS WRITTEN

commandwindow

clear

clc

A=[2,3,7,9,4; 3,7,9,12,5; 4,8,5,6,9; 5,9,2,4,5; 6,2,3,7,8]

D=det(A)

T=A'

format rat

I=inv(A)

format short

I=inv(A)

OUTPUT IN THE COMMAND WINDOW

A =

```
2  3  7  9  4
3  7  9 12  5
4  8  5  6  9
5  9  2  4  5
6  2  3  7  8
```

D =

-765.0000

T =

```
2  3  4  5  6
```

```

3  7  8  9  2
7  9  5  2  3
9 12  6  4  7
4  5  9  5  8

```

I =

```

1447/765  -1073/765  -239/765  40/51  -53/255
-67/153   50/153    8/153   -2/51  -1/51
656/255  -469/255  -22/255  13/17  -44/85
-1444/765 1121/765  8/765   -31/51 101/255
-28/45    17/45     11/45   -1/3    2/15

```

I =

```

1.8915 -1.4026 -0.3124  0.7843 -0.2078
-0.4379 0.3268 0.0523 -0.0392 -0.0196
2.5725 -1.8392 -0.0863  0.7647 -0.5176
-1.8876 1.4654 0.0105 -0.6078 0.3961
-0.6222 0.3778 0.2444 -0.3333 0.1333

```

### 3. COMMANDS WRITTEN

```

commandwindow
clear
clc
A=[0,10,4,-2; -3,-17,1,2; 1,1,1,0; 8,-34,16,-10]
B=[-4; 2; 6; 4]
I=inv(A)
X=I*B

```

### OUTPUT IN THE COMMAND WINDOW

A =

```

0  10  4  -2
-3 -17  1  2
1  1  1  0

```

8 -34 16 -10

B =

-4  
2  
6  
4

I =

-0.1786	-0.1020	0.5714	0.0153
0.0357	-0.0153	0.0357	-0.0102
0.1429	0.1173	0.3929	-0.0051
-0.0357	0.1582	0.9643	-0.0612

X =

4.0000  
-0.0000  
2.0000  
6.0000

Where,

'I' is Inverse

'T' is Transpose

'D' is Determinant