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**16/ENG06/018**

**MECHANICAL ENGINEERING**

**ENGINEERING MATHEMATICS**

**ENG 281**

**ASSIGNMENT 5**

1. Commandwindow

Clear

Clc

2. COMMANDS

```
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]
```

```
DETERMINANT=det(A)
```

```
TRANSPPOSE=transpose(A)
```

```
INVERSE=A^-1
```

```
format rat
```

OUTPUT

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				

DETERMINANT =

-765

TRANSPPOSE =

	2	3	4	5
6	3	7	8	9
2				

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

INVERSE =

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			

### 3. COMMANDS

```

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]
X=A^-1*B

```

#### OUTPUT

A =

0	10	4	-2
-3	-17	1	2
1	1	1	0
8	-34	16	-10

B =

-4
2
6
4

X =

4  
-1/10293942005418276  
2  
6