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16/ENG07/016
PETROLEUM ENGINEERING

1.
commandwindow
clear
clc

2.
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]
B=det (A)
C=transpose (A)
D=inv (A)
E=rats(D)

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

B =

-765.0000

C =

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

D =

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

E =

5×70 char array

```
'      401/212      -108/77      -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   '
'     -319/169      148/101      3/287      -31/51
101/255  '
'     -28/45      17/45      11/45      -1/3
2/15     '

```

>>

3.

```
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=inv (A)*B

```

A =

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

```

B =

-4

2

6

4

X =

4.0000

-0.0000

2.0000

6.0000

>>