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**16/ENG05/017**

**MECHATRONICS ENGINEERING**

**ENGINEERING MATHEMATICS**

**ENG 281**

**ASSIGNMENT 4**

1. Commandwindow

Clear

Clc

1. 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)

TRANSPOSE=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

TRANSPOSE =

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

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

1. 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