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Matric no:16/ENG05/020

1. 1. **Clear** - to clear variables in workspace.
   2. **clc –** to clear variables in command window.
2. **CODES:**
3. commandwindow
4. clear
5. clc
6. 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]
7. determinant=det(A)
8. tran=transpose(A)
9. inverse=inv(A)
10. sym(inverse)

**OUTPUTS:**

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 =

-765.0000

tran =

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 =

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

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. **CODES:**
2. commandwindow
3. clear
4. clc
5. A=[0 10 4 -2;-3 -17 1 2;1 1 1 0;8 -34 16 -10]
6. B=[-4;2;6;4]
7. invar= inv(A)
8. Answer=invar\*B
9. w=Answer(1,1)
10. x=Answer(2,1)
11. y=Answer(3,1)
12. z=Answer(4,1)

**OUTPUTS:**

**A =**

**0 10 4 -2**

**-3 -17 1 2**

**1 1 1 0**

**8 -34 16 -10**

**B =**

**-4**

**2**

**6**

**4**

**invar =**

**-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**

**Answer =**

**4.0000**

**-0.0000**

**2.0000**

**6.0000**

**w =**

**4**

**x =**

**-9.7145e-17**

**y =**

**2.0000**

**z =**

**6.0000**