

Math 4133 - Linear Algebra

Quiz #2 - 2014.01.22

Solutions

Consider the following matrices:

$$A = \begin{bmatrix} 1 & 2 & -3 \\ 8 & 9 & 0 \\ -4 & 1 & 3 \end{bmatrix}, \quad B = \begin{bmatrix} 1 & 0 & -1 \\ 2 & -2 & 1 \\ 0 & 1 & 3 \end{bmatrix}, \quad C = \begin{bmatrix} 2 & -1 & 4 \\ 0 & 5 & -1 \end{bmatrix}, \quad D = \begin{bmatrix} 2 & -1 \\ 0 & 5 \end{bmatrix}$$

Which of the following operations are performable?

1. $A + B$ is performable
2. AB is performable
3. AC is not performable
4. $C - D$ is not performable
5. DC is performable
6. $A + C$ is not performable
7. CBD is not performable
8. DCB is performable
9. $DCAB$ is performable
10. $BCAD$ is not performable