

Instructions: You must show all work to receive full credit for the problems below. You may check your work with a calculator, but answers without work will receive minimal credit. Use exact answers unless the problem starts with decimals or you are specifically asked to round.

1. For the matrices $A = \begin{bmatrix} 1 & 1 \\ -3 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 5 & -3 \\ 0 & 4 \end{bmatrix}$, $C = \begin{bmatrix} 2 & 1 & 1 \\ -1 & 3 & 7 \end{bmatrix}$, $D = \begin{bmatrix} -2 \\ 5 \\ 1 \end{bmatrix}$ perform the indicated operations or state why the operation is not possible. Do these operations by hand.
- a. AB

b. $A + B$

c. A^{-1}

d. CD

e. C^T