

# Quiz 6

For the following questions, use the matrices defined below.

$$A = \begin{bmatrix} -3 & 0 & 5 \\ -1 & 2 & 4 \end{bmatrix}, B = \begin{bmatrix} 6 & 1 \\ 3 & 0 \\ 7 & 2 \end{bmatrix}, C = \begin{bmatrix} 4 & 2 \\ 5 & 3 \end{bmatrix}, D = \begin{bmatrix} 3 & 4 & 7 \\ 5 & 2 & -3 \\ -2 & 0 & 1 \end{bmatrix}, \text{ and } E = \begin{bmatrix} 1 & -2 & 5 \\ 0 & 3 & -1 \end{bmatrix}$$

1. (2 points) What is the value of  $e_{23}$ ?
2. (2 points) Compute  $3A - 2E$
3. (2 points) Compute  $A \cdot B + C$
4. (2 points) Find the transpose of matrix D.
5. (2 points) Find the inverse of matrix C.