

Quiz 3
October 3, 2022

1. Consider the following matrices:

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

Compute each of the following, if possible

(a) $A + B$

(b) $A + C$

(c) $2B + D$

(d) AB

(e) BA

(f) CD

(g) BC

(h) AD

(i) BCD

2. Consider the matrix $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$. Determine 2×2 matrix I such that $AI = A$.