

Quiz 3

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1. Define the two matrices:

$$A_1 = \begin{bmatrix} 3 & 4 & 1 \\ 2 & -1 & -1 \\ 1 & 0 & 1 \end{bmatrix} \quad A_2 = \begin{bmatrix} 2 & 0 & -1 \\ 0 & 1 & 1 \end{bmatrix}$$

(a) is $A_1 \cdot A_2$ well defined? If so, compute it. If not, why?

(b) is $A_2 \cdot A_1$ well defined? If so, compute it. If not, why?

2. Find the inverse of the following matrix:

$$A_1 = \begin{bmatrix} 1 & 0 & -1 \\ 0 & 1 & 1 \\ 3 & 0 & -4 \end{bmatrix}$$