Quiz 10

Let $A = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix} \in M_2(\mathbb{R})$ and $B = \begin{pmatrix} -1 & 2 & -3 \\ 4 & -5 & 6 \end{pmatrix} \in M_{2,3}(\mathbb{R})$.

1. Compute AB.

2. Compute $B^T A$.

3. Compute A^{-1}.

4. Is B^{-1} possible as a function? Key words to think about here are 'one-to-one,' 'onto,' 'null space' and 'range.'