
Show all work. 5 points each.

1. Find the inverse of $\begin{bmatrix} 8 & 6 \\ 5 & 4 \end{bmatrix}$ and use it to solve the system $\begin{cases} 8x_1 + 6x_2 = 2 \\ 5x_1 + 4x_2 = -1 \end{cases}$

2. If A, B and C are $n \times n$ invertible matrices, solve $C^{-1}(A + X)B^{-1} = I_n$ for X .