

MEEG 4703 Quiz #3

1. (10 pts) Using method of successive transformations of *rows*, determine \mathbf{A}^{-1} for

$$\mathbf{A} = \begin{bmatrix} -4 & -1 & -14 \\ 5 & 2 & 20 \\ 1 & 0 & 3 \end{bmatrix}$$

2. (10 pts) Using method of successive transformations of *columns*, determine \mathbf{B}^{-1} for

$$\mathbf{B} = \begin{bmatrix} 2 & 0 & 7 \\ -5 & 2 & -20 \\ -1 & 0 & -3 \end{bmatrix}$$

Answers:

$$\mathbf{A}^{-1} = \begin{bmatrix} -6 & -3 & -8 \\ -5 & -2 & -10 \\ 2 & 1 & 3 \end{bmatrix}, \quad \mathbf{B}^{-1} = \begin{bmatrix} -3 & 0 & -7 \\ 2.5 & 0.5 & 2.5 \\ 1 & 0 & 2 \end{bmatrix}$$