

Math 3280 Worksheet 9: Linear and Matrix Algebra

Group members (2 to 4): _____

(1) Using row reduction, find all the solutions to the equations

$$3x + 2y + z = 2$$

$$x - y + 2z = 2$$

$$3x + 7y - 4z = -2$$

(2) If $B = (1 \ 2 \ 3)$ and $C = \begin{pmatrix} -2 \\ -2 \\ 2 \end{pmatrix}$, compute both BC and CB .

(3) Describe all of the 2 by 2 matrices $A = \begin{pmatrix} a & b \\ c & d \end{pmatrix}$ such that $AA = I$.