

Attendance Quiz for Lecture 21

NAME: (print!) _____ **Section:** _____

E-MAIL ADDRESS: (print!) _____

1. (a) Apply the Gram-Schmidt process to replace the given linearly independent set \mathcal{S} by an orthogonal set of non-zero vectors with the same span.

$$\mathcal{S} = \left\{ \begin{bmatrix} 1 \\ -2 \\ 1 \end{bmatrix}, \begin{bmatrix} 1 \\ -1 \\ 0 \end{bmatrix} \right\}$$

- (b) Obtain an orthonormal set with the same span as \mathcal{S} .