STA 721: Quiz 1

September 18, 2013

The following matrices will be used throughout this quiz.

$$A = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix} \qquad B = \begin{bmatrix} 1 & 0 & 0 \\ 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} \qquad D = \begin{bmatrix} 1 & 0 \\ 1 & 0 \\ 2 & 5 \\ 0 & 0 \end{bmatrix} \qquad E = \begin{bmatrix} 1 & 2 \\ 1 & 2 \\ 2 & 7 \\ 0 & 0 \end{bmatrix}$$

$$F = \begin{bmatrix} 1 & 5 & 6 \\ 1 & 5 & 6 \\ 0 & 7 & 2 \\ 0 & 0 & 9 \end{bmatrix} \qquad G = \begin{bmatrix} 1 & 0 & 5 & 2 \\ 1 & 0 & 5 & 2 \\ 2 & 5 & 7 & 9 \\ 0 & 0 & 0 & 3 \end{bmatrix} \qquad H = \begin{bmatrix} 1 & 0 & 2 & 2 & 6 \\ 1 & 0 & 2 & 2 & 6 \\ 7 & 9 & 3 & 9 & -1 \\ 0 & 0 & 0 & 3 & -7 \end{bmatrix} \qquad K = \begin{bmatrix} 1 & 0 & 0 \\ 1 & 0 & 0 \\ 1 & 1 & 0 \\ 1 & 0 & 1 \end{bmatrix}$$

$$L = \begin{bmatrix} 2 & 0 & 0 \\ 2 & 0 & 0 \\ 1 & 1 & 0 \\ 1 & 0 & 1 \end{bmatrix} \qquad N = \begin{bmatrix} 1 \\ 2 \\ 3 \\ 4 \end{bmatrix}$$