Math 220 Assignment

October 8, 2001

Due Wednesday, October 10

1. Which sets of column indices correspond to maximal linearly independent sets of columns in the following matrices?

$$\text{(a)} \begin{pmatrix} 18 & -42 \\ -15 & 35 \end{pmatrix} \quad \text{(b)} \begin{pmatrix} 3 & -2 & 4 \\ -1 & 5 & 2 \\ 5 & -12 & 0 \end{pmatrix} \quad \text{(c)} \begin{pmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{pmatrix}$$

2. Which sets of row indices correspond to maximal linearly independent sets of rows in the following matrices?

(a)
$$\begin{pmatrix} 1 & 2 & -4 & 7 \\ -2 & -1 & -1 & -8 \\ -1 & -4 & -14 & 5 \\ 5 & 7 & -11 & 29 \end{pmatrix}$$

(b)
$$\begin{pmatrix} 1 & 2 & -4 & 7 \\ -2 & -1 & -1 & -8 \\ -3 & -6 & 12 & -21 \\ 5 & 7 & -11 & 29 \end{pmatrix}$$

Document network location for HTML:

http://math.albany.edu:8000/math/pers/hammond/course/mat220/assgt/la011008.html