

Math 220 Assignment

October 10, 2001

Due Friday, October 12

1. For each of the following 4×4 matrices find non-redundant sets of linear equations that characterize the set of all linear combinations of the columns of the given matrix as a subset of \mathbf{R}^4 .

(a)

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

(b)

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

(c)

$$\begin{pmatrix} 1 & 2 & -4 & 7 \\ -2 & -1 & -1 & -8 \\ 5 & 7 & -11 & 29 \\ -1 & -4 & -14 & 0 \end{pmatrix}$$

Document network location for HTML:

<http://math.albany.edu:8000/math/pers/hammond/course/mat220/assgt/la011010.html>