

Linear Algebra
Exam 2
12-5-2004
Dr. Sabah Ahmad
Dr. Amin Witno

1. For each set find out if it is linearly dependent/independent, span or do not span \mathbb{R}^n , a basis or not a basis of \mathbb{R}^n .

- a. $\{(2,3,0), (1,4,0), (0,0,2)\}$
- b. $\{(1,2,3), (1,0,1), (2,4,6)\}$
- c. $\{(1,2,3), (1,0,1), (2,4,6), (3,2,5)\}$

2. Find a basis for the nullspace, row space, and column space of A.

$$\begin{array}{ccccc} 1 & 1 & 7 & 2 & 2 \\ 1 & -12 & -11 & -16 & 5 \\ 1 & -2 & 1 & -4 & 1 \end{array}$$