Dr. A. Betten Spring 2006

M502 Combinatorics II

exercise sheet # 4

Exercise # 1 (1 points)
Compute the rank of $A = \{2, 3, 5, 7\}$ as a subset of $\{0, \ldots, 7\}$.

Exercise # 2 (1 points)
Compute $\mathrm{rk}_X^{-1}(99)$ where $X = \{0, \ldots, 7\}$.

Exercise # 3 (1 points)
Compute the rank of $A = \{2, 3, 5, 7\}$ as a 4-subset of $\{0, \ldots, 7\}$.

Exercise # 4 (1 points)
Compute $\mathrm{rk}_{X,4}^{-1}(66)$ where $X = \{0, \ldots, 7\}$.

Exercise # 5 (6 points)
If $X = \{apple, orange, pear, potato, banana, mango, lemon\}_<$, compute

a) $\mathrm{rk}_X(\{orange, potato, mango\})$,

b) $\mathrm{rk}_{X,3}(\{orange, potato, mango\})$,

c) $\mathrm{rk}_X^{-1}(79)$,

d) $\mathrm{rk}_{X,3}^{-1}(27)$,

e) $\mathrm{rk}_X^{-1}(44)$ and

f) $\mathrm{rk}_{X,3}^{-1}(19)$.

due to Monday, 3/20/06.