MATH 566 – Homework for Section 2.2

due 25 October 2005

1) Do Exercises 11 and 21, and 23.

2) Prove:
\[ \kappa_\infty (A) = \kappa_1 (A^T) . \]

3) Is it also true that
\[ \kappa_1 (A) = \kappa_\infty (A^T) ? \]
Is yes, prove it. If no, provide a counterexample.