

## **MAT8010 Homework #7**

**Due Date: June 14, 2018**

1. (4 points) Problem 19H, page 226 (Van Lint/Wilson).
2. (4 points) Let  $\Gamma$  be an  $\text{srg}(v, k, \lambda, \mu)$  and let  $-s$  be its smallest eigenvalue. If  $C$  is a coclique (independent set) of  $\Gamma$ , then  $|C| \leq sv/(k + s)$ , equality holds if and only if every vertex  $x$  of  $\Gamma$  not in  $C$  has exactly  $s$  neighbors in  $C$ .
3. (4 points) Problem 21Q, page 279 (Van Lint/Wilson)