

Problem Set 1
CPSC 640 Quantum Algorithms
Andreas Klappenecker

The assignment is due next Monday, before class.

Solve the following exercises in the lecture notes:

- 2.3
- 2.4
- 2.6 using the definition of a unitary given in the lecture notes.
- 2.8
- 2.11
- 2.12
- 2.14
- 2.16

Almost all of them are trivial and can be solved within a very short time. You should refresh your knowledge about hermitian products, norms, and unitary matrices. If you have time, then read pages 60–74 in Nielsen and Chuang.