

# Quantum Information B    Fall 2020    Problem Set 2

Solutions are due in 4 pm on Tuesday Nov 10.

All problems are taken from Nielsen-Chuang, look them up from the book.

1. Exercise 8.3 from the book.
2. Exercise 8.4 from the book.
3. Exercise 8.9 from the book.
4. Exercise 8.17 from the book.
5. Exercise 8.21 from the book. Note that eqn. (8.110) may be missing a phase factor, but it is irrelevant (why?) for the definition of the quantum operation. (This exercise may be slightly more challenging than the others.)