**Definition 1.** This is the first definition of the first homework.

**Exercise 1.** This is the first exercise of the first homework.

**Proof.** This is the first proof of the first exercise of the first homework. We can easily reference labels from main.tex, e.g. theorem 1.1.

**Exercise 2.** This is the second exercise of the first homework.

**Proof.** This is the first proof of the second exercise of the first homework.



**Exercise 3.** This is the third exercise of the first homework.