

## Homework 2

- (a) Prove that the function  $f : (1, \infty) \rightarrow (2, \infty)$ ,  $f(x) = x^2 + x$  is one-to-one and onto.
- (b) Prove that the function  $f : \mathbb{R} \rightarrow \mathbb{R}$ ,  $f(x) = x^2 + x$  is not one-to-one. Prove that this function is also not onto.