

Assignment 2, Math 4820\5820  
Due Friday, September 9

1. Let  $f : A \rightarrow B$  to be a function. (See Definition 2.1.) Define
  - (a)  $f$  is injective (one-to-one).
  - (b)  $f$  is surjective.
  - (c)  $f$  is bijective.
2. Find a bijection  $f : \mathbb{N} \rightarrow \mathbb{Z}$ . See Example 2.5.
3. Find a bijection  $f : (0, 1) \rightarrow (0, \infty)$ .