In your own words, define a function. What are the two things that can make a function not well defined? What does it mean for a function to be injective? Surjective? Bijective?

Give an example of a function that is injective but not surjective. Give an example of a function that is surjective but not injective. Give an example of a function that is neither injective nor surjective. Give an example of a function that is both injective and surjective.

If you are daring, look up Schröder-Bernstein in Wikipedia and try to understand the proof.