Read Sections 7.2 (from page 312) and 7.3 in the textbook and answer the following questions. Hand in this worksheet at the next class.

1. What is the meaning of a bijection from a set $X$ to a set $Y$ ?
2. What is an inverse function? How is it denoted?
3. What is the meaning of the composition of two functions? How is function composition denoted?
4. If two one-to-one functions are composed, is the resulting function necessarily one-to-one? Why or why not?
5. Why is the proof in Example 7.3.5 incorrect?
