

Homework 5

Math 302 (section 501), Fall 2016

This homework is due on Thursday, September 29.

0. (*This problem is not to be turned in.*)
 - (a) Read Sections 1.1 and 1.3.
 - (b) (Practice Problems) Section 1.1 # 2, 4, 6, 10, 12, 21, 22, 30, 36
 - (c) (Practice Problems) Section 1.3 # 10, 15, 16, 22
 - (d) How many elements does \emptyset have? What about $\{\emptyset\}$?
1. Correct the following definition: *for functions f and g , from \mathbb{R} to \mathbb{R} , $f(x)$ is said to be $O(g(x))$ if there exist constants c and k such that $f(x) \leq c \cdot g(x)$ for all $x \in \mathbb{R}$.*
2. Rewrite the following sentences in the form “if p , then q ”:
 - (a) No person except a natural born Citizen, or a Citizen of the United States, at the time of the Adoption of this Constitution, shall be eligible to the Office of President; neither shall any person be eligible to that Office who shall not have attained to the Age of thirty five Years, and been fourteen Years a Resident within the United States.
 - (b) An undergraduate student with an overall grade point ratio of 3.00 or better may register for a course load in excess of 19 hours in a fall or spring semester or six hours (seven if part is laboratory) in a summer term with the approval of his or her advisor.
3. Section 1.1 # 3, 8, 15, 31, 44
4. Section 1.3 # 20, 40, 62