Summer term 2015 Problem Set 13 Due: Tuesday, July 28st, 2015

Recursion Theory

Your solutions will be returned during the lecture on July, 30th.

Problem 1: Turing Jump

4 Points

Show $\emptyset' \equiv_T K$.

Problem 2: Arithmetic Hierarchy

2 Points

Place the following sets in the arithmetic hierarchy.

a)
$$A = \{x \in \mathbb{N} \mid W_x = \{3, 7, 2013\}\}.$$

b)
$$B = \{x \in \mathbb{N} \mid W_x \equiv_T K\}.$$