Homework assignment for 30th March

March 30, 2017

For a commentary on what can be used in the following exercises and all the definitions, see the course notes.

Exercise 1. Prove that for all x, $x < 2^x$.

Exercise 2. Prove that for all x, y, $2^{x+y} = 2^x 2^y$.

Exercise 3. Prove that for all x, y, if $y \subseteq x$, then $y \leq x$.

Exercise 4. Prove that for all x, there exists $\mathscr{P}(x)$.