

Real Analysis I

Fall 2019

Homework 1, hints

Exercise session: Wed 11 September, 10:15 - 12:00, Exactum CK111; Emil Airta, emil.airta@helsinki.fi.

1. To find a function g for which the supremum is achieved: construct it explicitly using the given f . You need to consider the cases $\|f\|_p < \infty$ and $\|f\|_p = \infty$ separately.
2. Hölder's inequality and induction.
4. For " \leq ": Exercise 3.
5. Fatou's lemma