Tutorial Sheet 6

Problem 1. Prove that formula (2.20) implies formula (2.18) on p. 38 in [LP].

Problem 2. Solve Exercise 2.15 on p. 43 in [LP].

Problem 3. (i) Verify that the solution presented for Exercise 2.6 (i) p. 39 in [LP] (Exercise Sheet 5, Exercise 3) actually proves the statement in (*) in Lemma 2.A (i) (*The Lebesgue Differentiation Theorem*, p. '51 BIS' in the Lecture). .

(ii) Prove statement (ii) in Lemma 2.A in the Lecture. (This replaces (the statement of) Exercise 2.6 (ii) p. 39 in [LP]; see also Exercise Sheet 5, Exercise 3.)

Problem 4. Verify Examples 3.1–3.4 on pp. 45–46.

This tutorial sheet is to be solved during the tutorial class on 05.06.2019.