## D-MATH HS 2018 Prof. Emmanuel Kowalski Exponential sums over Finite Fields. Exercise Sheet 2

January 11, 2019

**Exercise 1.** See Section 2.2.3, 2.2.4, 2.2.6 and Proposition 2.7.43 in Kowalski's lecture notes in Representation Theory

Exercise 2. See Proposition 2.7.15 in Kowalski's lecture notes in Representation Theory

Exercise 3. See Theorem 4.1.1 in Kowalski's lecture notes in Representation Theory

Exercise 4. See Proposition 2.7.12 in Kowalski's lecture notes in Representation Theory

Exercise 5. See Proposition 4.3.1 in Kowalski's lecture notes in Representation Theory

**Exercise 6.** See Section 4.3.2, Proposition 4.3.11 and Corollary 4.3.14 in Kowalski's lecture notes in Representation Theory

**Exercise 7.** See Example 4.3.16 and Proposition 4.3.17 in Kowalski's lecture notes in Representation Theory