MATH 251 PROBLEMS - FIELDS

(1) Lang p. 253 ex 2,3,5,6,9,10,11
(2) Determine the minimal polynomial of \(\sqrt{2} + \sqrt{3}\)
(3) Determine the Galois group of \(x^p - 2\) when \(p\) is a prime.
(4) Let \(\zeta_7\) be a primitive 7-th root of 1. What is \(\mathbb{Q}(\zeta_7) \cap \mathbb{R}\)?