Eine Woche, ein Beispiel
11.3 normalization of a plane curve

In this document, we try to solve the exercise in [Ar85, I. Ex A-6]. After the discussion with Vincent, I want to record the proof here.

[Ar85]: Arbarello, E., M. Cornalba, P. A. Griffiths and J. Harris. Geometry of Algebraic Curves Volume I. Grundlehren Math. Wiss. Springer, Cham, 1985.