Due Date: 3 Nov

Commutative Algebra: Fall 2023

Exercise sheet 6

Problem 1. Gathmann exercise 7.3.

Problem 2. Show that if R is a Noetherian ring, then an R-module M is Noetherian if and only if it is finite over R.

Problem 3. Let R be a ring, M a Noetherian R-module, and N a finite R module. Show that $M \otimes_R N$ is Noetherian R-module.