Homework 11 Due: Friday, April 20

This homework set is an algebraic complement to what we've been doing in class.

- 1. Please make sure you can do #2 from the previous homework set.
- 2. Algebraic background:
 - (a) Read the basic definition of the length of a module [Liu, p. 258.]
 - (b) Read the basic definition of the exterior product of vector spaces in your favorite algebra book.

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- 3. [Liu, 7.1.6]
- 4. [Liu, 7.1.8] You may assume A and B noetherian, and Spec $B \rightarrow \text{Spec } A$ quasifinite.
- 5. [Liu, 7.2.2]