

MIDTERM INFO – MATH 6310
FALL 2025

The midterm will be on Friday, October 24th, in class. We will spend part of next week doing review, and there will be a review sheet given out by Monday with questions similar to those that I will ask you.

- (1) The first page will be short answer questions. I could ask for a definition, theorem statement (or fill in the blank), or an example or counter-example, I might also include short computations. There will be a focus on things related to PIDs, UFDs, Euclidean Domains, unique factorization.
- (2) A page where at least part of the problem will require you to identify the prime/maximal ideals of some ring.
- (3) A page where at least part of the problem will require to decompose a module over a PID (or most commonly a Euclidean Domain) into a direct sum of cyclic modules.
- (4) A problem where you will be asked to prove something related to exact sequences and/or split exact sequences.