Fall 2019, Math 620: Preliminary Problem Set 11 Due: Tuesday, November 19th, 2019 Introduction to Modules

Preliminary problems. These problems should be completed before discussion on Thursday.

(P1) Fix a ring R. Write down the axioms for a *right* R-module M.

(P2) Let $R = \mathbb{Q}[x, y]$. Write down 3 distinct bases for $R^3 = R \oplus R \oplus R$.