## Math 5200/6200 <br> Short Project 01

Scan (or photograph) your work; email it to me before class on Wednesday Feb. 2; send your work to me as a pdf file whose name begins with your last name (e.g. smith_project_1). You may omit one of the following problems.

Problem 1. Find the limit point of the following set and prove that it is a limit point of the set:

$$
M=\left\{\left.\frac{n^{2}-1}{3 n^{2}+2} \right\rvert\, n \in \mathbb{N}\right\}
$$

Problems 2-6. Prove theorems 1.8 through 1.12.

