UPDATED GENERAL INFORMATION — FEBRUARY 27, 2009

Here is the the seventh homework assignment, which is due in class on **Friday, March 6, 2009.** As usual, all references (including section numbers) are to the file `math133exercises3.pdf`.

- **Section III.5:** 4–6, 8, 9

This is the last assignment which will be turned in for grading. There will be one more assignment covering material from Unit V, but since there is no time for grading before the last day of class the solutions will be posted.

Notes on sections not covered

There will not enough time to cover Sections III.6 or III.7 well enough to include them on the last examination, and the coverage of the many sections in Unit V will also be too brief to justify testing on them. Here are some remarks on the omitted sections from Unit III.

Section III.6. This deals with issues involving circles and the theory of constructions. In order to carry out classical straightedge and compass constructions one needs to know that under favorable conditions a figures in the plane — either a line and a circle or a pair of circles — will have one or more points in common. Statements of this sort are stated and proved in Section III.6 of the notes. In a related vein, there are many situations in which one needs information about betweenness and separation when studying circles. One fundamental result of this type appears as Theorem III.3.8 in the notes.

Section III.7. This section states the axioms for developing the theory of area and volume in elementary Euclidean geometry. One should also note that Theorem III.7.2 is stated in proved as Theorem 24.5.1 on pages 391 of Moïse.