Math 133
Winter 2009

UPDATED GENERAL INFORMATION — JANUARY 23, 2009

IMPORTANT: The first examination is postponed until **Wednesday, February 4.**

Here is the third homework assignment, which is due in class on **Friday, January 30, 2009.** All references are to the file `math133exercises2.pdf` in the course directory.

- **Section II.1:** 2 – 4
- **Section II.2:** 1 – 3, 6, 8, 11

Additional problems on barycentric coordinates

Here are some more computational exercises involving barycentric coordinates. These are not to be turned in, and they are included as additional practice in working such problems (which are fundamental to the course).

A1. Let $A = (-1, 1)$, $B = (1, 1)$ and $C = (1, -1)$. Find the barycentric coordinates of D with respect to A, B, C if (1) $D = (a, a)$ where a is some scalar, (2) $D = (\frac{2}{3}, \frac{3}{4})$.

A2. Let $A = (1, 0)$, $B = (-1, -1)$ and $C = (0, 1)$. Find the barycentric coordinates of D with respect to A, B, C if $D = (n, 10 - n)$ where n is an integer and $0 \leq n \leq 5$.

A3. Let $A = (0, 2)$, $B = (1, 0)$ and $C = (3, 0)$. Find the barycentric coordinates of D with respect to A, B, C if $D = (1, x)$ where x is equal to $\frac{1}{2}$, 1, 2 and 4.

Solutions will be posted before the first examination.