Math 1116, Quiz #14, Spring 2013 Name KEY

**Instructions**: Show all work. Use exact answers unless specified otherwise.

1. Explain how Jefferson's method differs from Hamilton's Method in the process of calculation.

The process is the same through the standard quota and rounding down to find the lower quota. However, where Hamilton would just assign the extra seats, Jefferson will adjust the divisor until the modified lower quota distributes the required seats. Jefferson's method is capable of violating the quota rule, however.

2. How does the Huntington-Hill method differ from the other methods? (You should give at least three things, but you may give more.) Compare how it differs with respect to the quota rule and any paradoxes. Why do you think it is the preferred method used by the US government today?

Hunting-Hill differs from the other methods in that it uses the geometric mean rather than the arithmetic mean to determine whether a state is awarded its upper or lower quota. Like Webster's method, it will employ very slightly modified divisors in the calculation if the first pass is unsuccessful, but unlike Webster's it only modifies the divisor in one direction. It is quota rule and paradox resistent (although no method is perfect). It's this last feature and it's very limited skewing toward populous states that seems to be as good as it gets.