Actuarial Mathematics II

Name: _

Preview Chapter 6: Premium Calculation

Directions: Print out and complete, based on your reading of the text. If there are multiple sheets, staple together the top left corners (in the correct order). Turn in at the start of class on the date due. Do not submit answers on notebook paper or via email. No credit for late or incomplete preview assignments. Assignments may be turned in, in advance, to my mailbox in 233 MSB.

§6.5: The equivalence principle

- 1. Under the equivalence principle, $E[L_0^n] =$ _____.
- 2. State the equivalence principle in words (Equation 6.1)
- 3. The following all refer to Example 6.2.
 - (a) Explain what the expression $\min(K_{[x]}+1, n)$ means and why it appears in two places in the solution to part (a).

(b) Rewrite the solution to part (c), filling in the missing steps.

(c) Rewrite the solution to part (d), filling in the missing steps.

4. Redo Example 6.3 assuming both premiums and benefits are payable quarterly instead of monthly.