Please return this page with your signature. Please write your name and student number at the spaces provided:

Name: _____   Student ID: _____

I certify that this is my own work, and that I have not copied the work of another student.

Signature: _____   Date: _____

A fully-discrete whole life insurance policy was issued to a person age 20 for a benefit amount of $1,000. It was discovered that, during the 11-th policy year, the person is subject to an extra mortality not covered by the original terms of the policy. This extra risk can be expressed as an addition of 0.01 to the standard mortality rate applicable for that year.

To reflect this extra risk, the company decides to amend the policy by reducing the benefit amount. You are given:

- standard mortality rate at age 30 is $q_{30} = 0.0085$; and

- the 11-th year terminal reserve is $_{11}V = 81.50$;

Calculate the reduced benefit amount.