

Math 0400 Discrete Mathematical Structures — Quiz 5

Due: Wednesday, June 27, 2007

Name: _____

In place of Quiz 5, please complete this project at home. The purpose of it is to help you understand the mathematics behind the annuity formula. We explained this in detail in class, so you may wish to consult your notes, as well as the book.

You may not use the annuity formula to answer this problem. No credit will be assigned if the annuity formula is used.

Problem. Anne opens a savings account that pays interest at the annual interest rate of 6%. For the first 5 years, she deposits \$50 at the end of each month. After that, for the next 3 years, she deposits \$100 at the end of each month. How much money will Anne have in the account at the end of 8 years? (Assume that the interest is compounded monthly.)

Directions. Attach this sheet as a cover sheet to your solution. Please include detailed explanations, so that a peer reading your solution would understand your approach. Think of it as a writing project, as well as a math problem. Your solution will be graded both based on correctness and clarity of exposition.