

MATH 1332 – COLLEGE MATHEMATICS

Study Guide for Test 3

To do well on this test, you should be able to work the following types of problems. The relevant section and the group of exercises in the book that apply to each topic are listed at the end. (Note: I am not suggesting that you need to work all of these problems, I am merely giving you a reference point.)

- Vocabulary – all sections
- Calculate the monthly interest on a credit card or other debt. (4A: 21-24)
- Find a person's monthly net cash flow given income and expense information. (4A: 31-34)
- Calculate the balance in an account earning
 - a) simple interest (4B: 43-46)
 - b) compound interest (4B: 49-62, 4C: 23-30)
 - c) continuous compound interest (4B: 67-72)
- Calculate the lump sum amount that must be deposited today in an interest bearing account to have a specified balance in the future. (4B: 73-80)
- Calculate the regular (monthly, weekly, etc.) deposits in an interest bearing account needed to reach a specified balance in the future. (4C: 31-34)
- Find the annual percentage yield for a given account. (4B: 63-66)
- Compute the total return and annual return on a given investment. (4C: 37-44)
- Find the worth today of an investment given the historical annual average return. (4C: 45-46)
- Find the current yield of a bond. (4C: 55-58)
- Find the annual interest of a bond. (4C: 59-62)
- Calculate the following for a credit card debt or installment loan: (4C: 15-24)
 - a) monthly payment
 - b) total amount paid over the life of the loan
 - c) *total amount of interest paid for the loan. **This is different from the book exercises.*
- Find the gross income, adjustable gross income, taxable income, and find the amount of tax owed for a given situation (4E: 19-22, 29-36)
- Know the difference between the standard deduction and itemized deductions and decide which one a person should take. (It should *always* be the higher one!) (4E: 23-24)
- Know the difference between a tax credit and a tax deduction and how they affect the amount of tax owed. (4E: 37-42)

You will be given a list of the applicable formulas, such as the compound interest formula, so you don't need to memorize those. You will, however, need to know which formula to use and how to use it. I would strongly encourage you to study your class notes, take-home quizzes, and review your homework problems. As always, you can email me, come by my office, or visit the learning lab to check answers to even numbered questions or answers to quiz problems.