

Homework #9

Name: \_\_\_\_\_

**Due: 3:00pm on April 1, 2009**

Math 166 Section: \_\_\_\_\_

Row: \_\_\_\_\_

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**This assignment is due by 3:00pm on April 1, 2009** You can turn it in to me in class or drop it by the office, **Blocker 640D**. Be sure that you follow the homework rules, they can be found on your syllabus. Please work the problems in the order that they are listed.

**Round your answers to 4 decimal digits unless the answer is money then round to two decimal digits.**

1. (1 point) You deposit \$500 into an account and then make quarterly payments of \$150 for the next 5 years. How much will be in the account at the end of the 5 years if you earn interest at a rate of 6% per year compounded quarterly?
  
2. (3 points) A boat costs \$24,000. You amortize the loan with equal monthly payments over an 8 year period. The interest on the unpaid balance is 6.6% per year compounded monthly.
  - (a) What monthly payment is needed to pay off the loan in 8 years?
  
  - (b) How much interest will you pay on this loan?
  
  - (c) What equity will you have after 3 years of making payments?
  
3. (2 points) For problem 2 make an amortization table for the first three periods of the loan.
  
4. (3 points) Your grandparents have decided to help you out with your college expenses. They have set up a fund that will pay you \$450 every month to help pay for your apartment rent. The account earns interest at 4% per year compounded monthly and the account will be empty at the end of 6 years.
  - (a) If your grandparents started the account when you started college, how much money is needed to support you during college?
  
  - (b) Assume that your grandparents started this account when you were born and you start college at age 18 years. What payments did they have to make so that they could help support you during college? They stop making payments when you start college.
  
  - (c) For part b, how much interest did the account earn during the ENTIRE lifetime of the account both before and during college.
  
5. (2 points) You have bought a new TV for \$1000 down and will pay monthly payments of \$150 for three years. The interest rate is 8% per year compounded monthly.
  - (a) Find the cost (purchase price) of the TV. In other words, what was the price tag of the TV in the store.
  
  - (b) How much interest did you pay on the purchase of this TV?