Some ground rules for homeworks and exams:

Write your homework answers on the sheets supplied. If necessary, you can get new sheets on the class web site.

All homework and examination items are answered with a limitation on space. Limitations on the homework items are typical of those on examination items. Ordinarily, one-half page is allowed. Sometimes a word limit is also set. Write the best answer that you can in the space available. Writing that is illegible or unreasonably tiny is penalized.

In most items, you will know more than you can fit in the space. You must decide which parts are important enough to write down. It helps to outline the answer before writing it. It also helps to key the text to the diagrams, tables, and equations, and you should practice this technique in the homeworks and in your preparation for examinations.

In preparing homeworks or examination answers, it is best not to leave blank space. You may think that you have answered sufficiently without using all of the space, and you may be eager to go on to the next problem. Instead, reflect on the problem and explain the answer a bit more deeply.
1. (Like 4.12 in the text) You have the opportunity to invest in a machine that will cost $285,000. It will generate cash flows of $87,000 at the end of each year and require maintenance costs of $11,000 at the beginning of each year. The life of the machine is five years and the discount rate for such investments is (constantly) ten percent. Should you buy the machine? Should you buy it if the discount rate is nine percent? (Hint: start your answer with a time-line of the cash flows and forget about taxes.)

2. (Like 4.37 in the text). On September 1, 2003, Suzana Ciao bought a Harley for $20,000. She paid $4,000 down and financed the balance with a five-year loan at an interest rate of 6 percent, compounded monthly (this means .5 percent per month). The first monthly payment was made exactly one month after the purchase. In October 2005 her options vested and she decided to pay off the loan on November 1. The bank charges her a prepayment penalty amounting to 1% of the principal balance. How much does she pay the bank on November 1. (Hint: As usual, start with a time-line showing the timing of cash flows. This is a good problem to put in a spreadsheet. You may attach a single page giving the solution.)
3. (Like 5.5 in the text) A bond with a semi-annual (twice a year) coupon payment is sold for $1091.96, which is above its par value of $1000. The bond is 15 years to maturity and the yield required by the market for such bonds is seven percent. Show how to solve for the coupon rate for the bond. Show that it is eight percent. (Hint: As usual, you may assume that the next coupon payment is due in exactly six months.)

4. (Answer in 200 words or less, preferably laser printed.) You are starting a small business and are looking for money. Define "angel" and "venture capitalist." What questions is a bank likely to ask you if you try to borrow money for your business?