Some ground rules for homeworks and exams:

Write or print 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 and equations, and you should practice the technique in the homeworks and in your preparation for examinations. It is usually best not to leave large amounts of blank space. Instead, explain the answer a bit more deeply, state the definitions involved, and so on.
1. A U.S. government bond that matures in 9 years trades at a price of $950. The stripped coupons of the same bond trade for $300 and the zero-coupon version of the same bond trades at $625. Something is wrong with these prices. Explain how a large bond trading firm can make a riskless arbitrage yielding an immediate profit.

Suppose that the strip trades for $350 and the zero trades for $625. Use pie theory to explain why the market value of the bond should be $975.

2. Explain fairly carefully why, in the Monty Hall game, the contestant should always switch doors after the host has opened one of them.