## Chapter Five Exercises

1. The Encyclopedia of Investments states that, "The effective rate of return [on a Treasury bond] . . . is normally referred to as the security's yield to maturity." Explain why an investor's realized rate of return is not necessarily equal to the bond's yield to maturity, even if the bond is held until maturity.
2. Explain this quotation from The Wall Street Journal:

Suppose you buy a 10-year Treasury note today at a yield to maturity of $6 \%$ and interest rates shoot up to $8 \%$. What happens to your investment?
A. You lose money.
B. You make money.
C. Nothing happens.
D. All of the above.

How is that possible? The trick is how long you hold the investment.
3. A June 1, 1995 Wall Street Journal article argued that people buying 30-year Treasury bonds with 6.7 percent yields were imprudent speculators. Among the reasons given: "room for further slippage is limited. Interest rates have never been less than zero yet," and while bond prices might decline "a bit more," "the premium for making this bet is all of four-fifths of a percentage point, since one can get $5.84 \%$ without the risk on a two-year note." Explain why investors in 30-year Treasuries will make much more than four-fifths of a percentage point if interest rates decline.
4. In 1992 New York City issued "mini-munis"-municipal bonds in unusually small denominations that were intended to appeal to people with modest amounts to invest. Here are the prices of zero-coupon New York mini-munis with $\$ 5,000$ maturation values:

Maturity, years Price, dollars
$5 \quad 3,649$
$10 \quad 2,542$
$20 \quad 1,233$
a. Calculate the yields to maturity on each of these three zeros.
b. Why do you suppose these three zeros were priced to have different yields?
c. The taxable equivalent yield is the value of the yield on a fully taxable bond that gives the same after-tax return as a tax-exempt muni. Calculate the taxable equivalent yields on these three securities for a New York investor in a 31 percent federal tax bracket and 12.3 percent New York tax bracket. (Remember that New York taxes can be deducted from federal taxable income.)
5. John Kenneth Galbraith wrote that "anyone who buys a junk bond known as a junk bond deserves on the whole to lose." Why would any rational investor buy a junk bond when it is clearly labeled a junk bond?

