Stocks and Bonds Problems

Danny has one share of stock and one bond. The total value of the two securities is $1,200. The stock has an expected return of 12.60 percent per year and pays annual dividends that are expected to grow forever by 1.90 percent per year. The next dividend is expected to be $15.76 and paid in one year. The bond has a coupon rate of 9.80 percent and a face value of $1,000; pays annual coupons with the next coupon expected in one year; and matures in 12 years. What is the yield-to-maturity of the bond?

Answer: 9.06%

Sandy has one share of stock and one bond. The total value of the two securities is $1,000. The bond has a YTM of 8.40 percent, a coupon rate of 7.90 percent, and a face value of $1,000. The bond matures in 12 years and pays annual coupons with the next one expected in 1 year. The stock is expected to pay an annual dividend every year forever, the next dividend is expected to be $2.17 in 1 year, all subsequent dividends are expected to grow at the same annual growth rate, and the expected return for the stock is 10.83 percent. What is the annual growth rate of the stock's dividend expected to be?

Answer: 4.95%

Bonds issued by Bianca Time have a par value of $1000, were priced at $962 six months ago, and are priced at $865 today. The bonds pay semi-annual coupons and just made a coupon payment. If the bonds had a percentage return over the past 6 months (from 6 months ago to today) of -5.70%, then what is the current yield of the bonds today?

Answer: 9.75%

Bonds issued by Glorious Vending Corporation have a coupon rate of 11.20 percent and a face value of $1,000, pay semi-annual coupons with one just paid and the next coupon due in 6 months, and mature in 9 years from today. Six months ago, the bonds were priced at $835.17. Today, the bond's yield-to-maturity (YTM) is 15.60 percent. What was the rate of return for the bonds over the past 6 months (from 6 months ago until today)?

Answer: 1.41%

A stock has an expected annual return of 8.2% and is expected to pay annual dividends forever. The first annual dividend is expected in 1 year and all subsequent annual dividends are expected to grow at a constant rate of 2.9% per year. The dividend expected in 1 year from today is expected to be $68.50. What is the present value (as of today) of the dividend that is expected to be paid in 5 years from today?

Answer: $51.79