## Problems

36.

The Darkroom Windowshade Company has 100,000 shares of stock outstanding. The investors in the firm own the following numbers of shares: investor 1 has 20,000 shares; investor 2 has 18,000 shares; investor 3 has 15,000 shares; investor 4 has 10,000 shares; investor 5 has 7,000 shares; and investors 6 through 11 have 5,000 shares each. What is the minimum number of investors it would take to vote to change the company's top management? If investors 1 and 2 agree to vote together, can they be certain of always getting their way in how the company will be run?

37.

Imagine that a local water company issued $10,000 ten-year bond at an interest rate of 6%. You are thinking about buying this bond one year before the end of the ten years, but interest rates are now 9%.

1. Given the change in interest rates, would you expect to pay more or less than $10,000 for the bond?
2. Calculate what you would actually be willing to pay for this bond.

38.

Suppose Ford Motor Company issues a five year bond with a face value of $5,000 that pays an annual coupon payment of $150.

1. What is the interest rate Ford is paying on the borrowed funds?
2. Suppose the market interest rate rises from 3% to 4% a year after Ford issues the bonds. Will the value of the bond increase or decrease?

39.

How much money do you have to put into a bank account that pays 10% interest compounded annually to have $10,000 in ten years?

40.

Many retirement funds charge an administrative fee each year equal to 0.25% on managed assets. Suppose that Alexx and Spenser each invest $5,000 in the same stock this year. Alexx invests directly and earns 5% a year. Spenser uses a retirement fund and earns 4.75%. After 30 years, how much more will Alexx have than Spenser?