## Chapter Twenty Exercises

1. An advertisement by the Investment Company Institute boasted that $\$ 10,000$ invested in mutual funds in 1950 would, neglecting load charges and assuming the reinvestment of all dividends, have grown to $\$ 113,500$ in 1972, twenty-three years later. A finance professor calculated that, over this same time period, an investment in the NYSE composite index, including the reinvestment of dividends, would have grown by 12.54 percent per year. Did the mutual funds do better or worse than the NYSE composite?
2. Ginnie Mae mutual funds buy a pool of residential mortgages that are guaranteed by the Government National Mortgage Association. Investors in these funds receive the monthly mortgage payments, interest and principal, made by homeowners. While investors are protected against default, they can be hurt both by a rise in market interest rates and by a decline. Explain how this is possible.
3. Some criticize dual-purpose funds because the fund's managers cannot possibly satisfy both classes of shareholders. For example, the purchase of high-dividend, slow-growth stocks benefits the income shareholders at the expense of the capital shareholders. Explain why this claim is refuted by the argument that dividing the fund's shares into two classes cannot make shareholders worse off.
4. An author recommends this Superhedge strategy: buying dual-purpose capital shares selling at a discount from net asset value and writing call options on stocks similar to those held by the fund. In what sense is this a hedge?
5. Explain what is misleading about this analysis of dual-purpose funds:

Say that Widow A, who has $\$ 1,000$ and wants all the income she can get from it, and Executive B, who also has $\$ 1,000$ and wants all the growth he can get, join forces. The result is $\$ 2,000$, which is duly invested and, in a year's time, has produced a notunreasonable five percent in dividends and ten percent in capital gains. Five percent of $\$ 2,000$ is $\$ 100$, and that would go to the widow, who finds that she has received a ten percent return on her $\$ 1,000$ investment. The ten percent in capital gains amounts to $\$ 200$, and that goes to the executive, who discovers he's blessed with a $20 \%$ return. Almost miraculously, both are making twice as much as they would if the fund hadn't brought them together.

