1. Stocks A and B have the following historical returns:

Year	Stock A's Returns, k_A	Stock B's Returns, K_B
1993	(10.00%)	(3.00%)
1994	18.50	21.29
1995	38.67	44.25
1996	14.33	3.67
1997	33.00	28.30

(a). Calculate the average rate of return for each stock during the period 1993 through 1997. Assume that someone held a portfolio consisting of 50 percent of Stock A and 50 percent of Stock B. What would have been the realized rate of return on the portfolio in each year from 1993 through 1997? What would have been the average return on the portfolio during this period?

(b). Now calculate the standard deviation of returns on the two stocks and for the portfolio.

(c). Looking at the annual returns data on the two stocks, would you guess that the correlation coefficient between returns on the two stocks is closer to 0.9 or to -0.9?

(d) If you add more stocks at random to the portfolio, which of the following is the most accurate statement of what would happen to σ_P?

(1). σ_P would remain constant

(2). σ_P would decline to somewhere in the vicinity of 21 percent.

(3) σ_P would decline to zero if enough stocks were included. (20%)

2. TOR most recently sold 100,000 units at $7 5 each; its variable operating costs are $3.00 per unit, and its fixed operating costs are $250,000. Annual interest charges total $80,000, and the firm has 8,000 shares of $5 (annual dividend) preferred stock outstanding. It currently has 20,000 shares of common stock outstanding. Assuming that the firm has a 40 percent tax rate.

(a). At what levels of sales (in units) would the firm break even on operations (i.e., EBIT=$0)?

(b). Calculate the firm's earning per share (EPS) in tabular at (1) the current level of sales and (2) a 120,000-unit sales level.

(c). Using the current $750,000 level of sales as a base, calculate the firm's degree of operating leverage (DOL).

(d). Using the EBIT associated with the $750,000 level of sales as a base, calculate the firm's degree of financial leverage (DFL).

(e). Use the total leverage (DTL) concept to determine the effect (in percentage terms) of a 50 percent increase in TOR's sales from the $750,000 base level on its earnings per share. (20%)

3. Consider the following two mutually exclusive projects:

Year	Cash Flows A	Cash Flows B
0	-$260,000	-$40,000
1	5,000	45,000
2	15,000	5,000
3	15,000	500
4	425,000	500

注意：背面有試題

Whichever project you choose, if any, you require a 15 percent return on your investment.

(a). If you apply the payback criterion, which investment will you choose? Why?

(b). If you apply the discounted payback criterion, which investment will you choose? Why?

(c). If you apply the NPV criterion, which investment will you choose? Why?

(d). If you apply the IRR criterion, which investment will you choose? Why?

(e). If you apply the profitability index criterion, which investment will you choose? Why?

(f). Based on your answer in (a) through (e), which project will you finally choose? Why? (25%)

4. (a) You own 1,625 shares of stock in Wordsoft Corporation. You will receive a 65-cent per share dividend in one year. In two years, Wordsoft will pay a liquidating dividend of $25 per share. The required return on Wordsoft stock is 16%. What is the current share price of your stock (ignoring taxes)? If you would rather have equal dividends in each of the next years, show how you can accomplish this by creating homemade dividends. (Hint: Dividends will be in the form of annuity)

   (b) In the previous problem, suppose you want only $50 total in dividends the first year. What will your homemade dividend in two years? (15%)

5. Aggressive Incorporated wishes to make a tender offer for the passive Company. Passive has 100,000 shares of common stock outstanding and earns $5.50 per share. If it were combined with Aggressive, total economies of $1.5 million could be realized. Presently the market price per share of Passive is $55. Aggressive makes a two-tier tender offer: (1) $65 per share for the first 50,001 shares tendered and (2) $50 per share for the remaining shares.

(a). If successful, what will Aggressive end up paying for Passive? How much incrementally will stockholders of Passive receive for economies?

(b). Acting independently, what will each stockholder do to maximize his or her wealth? What might they do if they could respond collectively as a cartel?

(c). How can a company increase the probability of individual stockholders resisting too low a tender offer?

(d). What might happen if Aggressive offered $65 in the first tier and only $40 in the second tier? (20%)