**Question 1:** Future value of annuity problem.

You deposit $8,000 into a retirement account at the end of the next 12 years earning 10% interest, what is the future value of your retirement after 12 years?

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**Question 2:**

Part 1)

Using a 4.4% discount rate, calculate the Net Present Value, Payback, Profitability Index and IRR for each of the investment projects below (note, the inflows are for each year). Based on your calculations rank the projects and support you answer.

Project 1:

Initial Invest= $505,000, Cash inflows of $105,000 for years 1-5 and $50,000 for years 6-10

Project 2:

Initial Invest= $1,100,000, Cash inflows of $420,000 for years 1-3, $0 for years 4-7 and $250,000 for years 8-10.

Project 3:

Initial Invest= $840,000, Cash inflows of $300,000 for years 1-5, $0 for years 6-9 and $100,000 for year 10.

(Part 2)

Assuming a budget of $1,200,000 what are your recommendations for the three projects in the above problem. Explain.

Assuming a budget of $2,000,000 what are your recommendations for the above problem? Explain.

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**Question 3**: Risk & Return and the CAPM.

Based on the following information, calculate the required return based on the CAPM:

Risk Free Rate = 3.75%

Market Return =10%

Beta = 1.32

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**Question 4:** Present value of annuity problem.

You will receive $2,000 at the end of the next 12 years, assuming a 6% discount rate, what is the present value of the cash flows?