ECONOMICS 136
FIRST MIDTERM

I. Show your work and briefly explain your answers. If you cannot calculate the answer, explain how you think the problem should be solved [40 points, 40 minutes total].

1. Suppose your wealth is to be divided between the following two assets whose returns are *uncorrelated* (there are only two assets available and neither is risk free):

	Expected Return	Standard Deviation
Asset A	10%	20%
Asset B	10%	30%

(a) Give the expressions for the expected return and risk (standard deviation) of portfolios comprised of varying combinations of assets A and B.

(b) Calculate the share of asset B in the portfolio that has minimum risk. Interpret.

2. The assumptions of the capital asset pricing model (CAPM) hold:

	Expected Return	Standard Deviation
Risk-free asset	4%	0%
Market portfolio	12%	20%

(a) Explain how you would form a portfolio with an expected return of 16%. What is the risk (standard deviation) of the portfolio? Interpret.

(b) Suppose a friend suggests you buy a hot internet stock, 136.learn, that has an expected return of 32%. Do you have enough information to determine the stock's β? If so, what is it? If not, what additional information is needed. Why is β important? Should you consider purchasing the stock?

II. Briefly explain why you agree or disagree [40 points, 40 minutes total].

1. Given labor and technology, the interest rate is high in a low-saving economy and the interest rate is low in a high-saving economy.

2. Theory predicts unambiguously that an increase in the interest rate raises current saving.

3. Risk-averse agents have increasing marginal utility of income.

4. The expectations approach (hypothesis) for the term structure of interest rates asserts that when the Federal Reserve raises the current short-term interest rate, current yields on long-term bonds must also rise.

5. A risk-averse agent picks a portfolio on the Capital Market Line (CML), but a risk-neutral agent picks the single asset with the highest expected return.