Finance 5360 Quiz B: 7/22/15 Name ________________________________

Assume you are considering investing $100,000 in a mix of T-bills which earn a 5% return, Popsi which has an expected return of 6% and a standard deviation of returns of 9%, and Time Analytics Inc. which has an expected return of 10% and a standard deviation of returns of 20%. Assume that the correlation between Popsi and Time Analytics is – 0.2.

a. Sketch a graph of the possible combinations of expected return and standard deviation that you could achieve if you limit yourself to positions (long or short) in Popsi and Time Analytics.
b. On the same graph you used to answer "a", identify the best portfolio that would give you a standard deviation of returns of 18%. What is the approximate mix of assets in this portfolio?
c. On the same graph you used to answer "a" and "b", identify the best portfolio that would allow you to gives you a standard deviation of returns of 18% if you also allow some sort of position in T-bills.
d. Assume that the risk-free rate falls to 1%, but that nothing else changes. Identify your new best portfolio and show how much better or worse off you are in "d" than "c".