Quiz: Assume you are planning to invest in \$100,000 in some combination of Boeing and Sprint and \$400,000 in risk-free Treasury bills. The expected return on Boeing is 12% and on Sprint is 22%. The standard deviation (volatility) of returns is expected to be 11% on Boeing and 18% on Sprint. The correlation between the returns on Boeing and Sprint equals +0.3. The risk-free rate equals 1%. The Sharpe Ratios for various combinations of Boeing and Sprint equal:

% Boeing	<u>Sharpe</u>	% Boeing	Sharpe	% Boeing	Sharpe
135	0.53	75	1.28	15	1.23
115	0.78	55	1.35	-5	1.15
95	1.07	35	1.31	-25	1.08

- a. Set up the calculations needed to determine the expected return and standard deviation of the optimal portfolio of Boeing and Sprint. Note: you have split \$100,000 between these two stocks.
- b. Set up the calculations needed to determine the expected return and standard deviation of your overall portfolio. Note: this is your overall portfolio in which you have invested a total of \$500,000.
- c. Sketch Boeing, Sprint, and both of your portfolios (a and b) on a risk-return graph.

Note: Bonus WSJ Questions on back of page