$\qquad$
Note: Answer parts a, c, and e on the same graph. Be sure to clearly label which parts of your graph answer each part of the question.

Assume you have $\$ 100,000$ and are considering buying and/or short-selling shares of Hormel Foods (HRL) and Carnival (CCC). According to your calculations, the expected return on Hormel equals $4 \%$ and on Carnival equals $10 \%$. And according to your calculations, the standard deviation of returns (volatility) is expected to equal $12 \%$ for Hormel and $33 \%$ for Carnival. The correlation between Hormel and Carnival equals 0.2.
a. Sketch a graph of the portfolios it would be possible for you to construct and label your best portfolio if you want a standard deviation of returns of $40 \%$.
b. What is the approximate dollar investment in each asset?
c. Assume the standard deviation of returns on both stocks rise by $5 \%$ (Hormel rises to $17 \%$ and Carnival rises to $38 \%$ ). On the same graph you used to answer part a, show your new set of possible portfolios and your best portfolio (if you still want a standard deviation of returns of $40 \%$ ).
d. What types of changes will you need to make to your investments?
e. Are you better or worse off in c) than in a)? On the same graphs you used to answer parts a) and c), demonstrate how the change in c) has made you better or worse off.

## Wall Street Journal Questions are on the back of this page.

