$\qquad$
Recount Inc. has a current price of $\$ 60$ per share. For each of the next two years, Recount's stock price will either rise $\$ 12$ per share or fall $\$ 8$ per share. Thus, Recount's stock price will equal either $\$ 72$ or $\$ 52$ per share one year from today, and Recount's stock price will equal either $\$ 84$ or $\$ 64$ or $\$ 44$ per share two years from today. Assume that the risk-free interest rate equals $6 \%$ and that replicating portfolios for a particular call on Recount would need to consist of the following:

Today: $\Delta=+0.8743, \mathrm{~B}=-35.9644$
One year from today:
If Recount's stock price climbs to $\$ 72$ : $\Delta=+1.0, \mathrm{~B}=-47.1698$
If Recount's stock price falls to $\$ 52: \Delta=+0.7, B=-29.0566$
a. What transactions would be required today and one year from today to build the replicating portfolios?
b. Assume Recount's stock price climbs to $\$ 72$ next year. Calculate the possible payoffs two years from today on the portfolio you built one year from today ( $\Delta=+1.0, \mathrm{~B}=-47.1698$ )?
c. Assume Recount's stock price falls to $\$ 52$ next year. Calculate the possible payoffs two years from today on the portfolio you build one year from today ( $\Delta=+0.7, \mathrm{~B}=-29.0566$ ) ?

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

