Laboratory 5: Put/Call Parity, Greeks, Other Payouts

Needed Bloomberg Skills

- Find the Greeks for an option.
  OVME
- Construct portfolios to price spreads, strangles, and butterflies.
  OVME..Products..Option Strategies

“Financially” just means from the viewpoint of the buyer or seller, as appropriate.

Assignment

1. Look up put and call pricing for Amazon. Check the implied volatility values to see if they match.
2. Look up a series of put and call options for Amazon with the same exercise date. Use our simplistic model of put-call parity to predict the value of the put given the call and vice versa (see template). Compare the traded prices of the options to the predicted prices, and discuss any differences in light of the implied volatilities.
3. For your company, find a call option (for some expiration) with the strike $K_s$ closest to the spot price. Then price the call options with the same expiration and strikes just above and below $K_s$ (one in the money, one out of the money). Compare the Greeks for these three call options. Discuss your results financially.
4. On the option pricing screen, we wish to examine European bullish spreads. For each of the following subcases, price two options with differing spread widths:
   (a) $S < K_b$
   (b) $K_b < S < K_s$
   (c) $K_s < S$

   Discuss how $V$ and $\Delta$ change, both among the cases and as the width varies. Explain your results financially.