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Nicole Stawasz* (nicolestawasz@kings.edu), King's College, 133 N. River St., Wilkes-Barre, PA 18711. *Mathematical Models for Call Options on Stocks.*

A call option gives you the option to buy the stock for a fixed price at a given future date. We want to find a mathematical model so that we can calculate the value of the call option at any time step from now to the maturity. A CDF gives us more information about the call option, so we find a sequence of CDF's based on the time steps and use characteristics equations and Levy's Continuity Theorem to find that these CDF's converge to a CDF after some rescaling. Finally, we use this to derive an equation for the price of the call option today as the number of time steps converges to infinity. (Received September 12, 2008)