Financial Mathematics

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[1] Based on Robert L. McDonald's *Derivatives Markets*, 3rd Ed, Pearson, 2013.

Chapter 10. Binomial Option Pricing: Basic Concepts

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§ 10.1 A one-period Binomial tree

§ 10.2 Constructing a Binomial tree

§ 10.3 Two or more binomial periods

§ 10.4 Put options

§ 10.5 American options

§ 10.6 Options on other assets

§ 10.7 Problems

Chapter 10. Binomial Option Pricing: Basic Concepts

We compute put option prices using the same stock price tree and in almost the same way as call option prices

The only difference with a European put option occurs at expiration
Instead of computing the price as

$$\max(0, S - K)$$

we use

$$\max(0, K - S)$$

FIGURE 10.6

Binomial tree for pricing a European put option; assumes $S = \$41.00$, $K = \$40.00$, $\sigma = 0.30$, $r = 0.08$, $T = 1.00$ years, $\delta = 0.00$, and $h = 0.333$. At each node the stock price, option price, Δ, and B are given. Option prices in ***bold italic*** signify that exercise is optimal at that node.