Principles of Financial Computing HW#1

Write a program to price the American put with the spot rate curve: 0.08 - 0.05 * exp(-0.18 * t) continuously compounded.

Output the <u>put price</u> with its <u>delta</u> based on the <u>CRR binomial tree</u>.

Inputs:

- (1) S (spot price)
- (2) K (strike price)
- (3) s (volatility)
- (4) T (years)
- (5) n (number of periods)

Output: (1) put price and (2) delta.

For example, assume $\underline{S = 100, K = 100, s = 0.3, T = 1, and n = 300.}$ Then the <u>put price is 10.3488</u> and the <u>delta is -0.4147</u>.