

(1) CRR Binomial Tree: Option_Lookback_CRR.py

```
def calibratedPrice(stockPrice, St, layers):...
class Tree_Node:...
def lookback_CRR(StMax, St, T, r, q, sigma, layers, type):...

# main
St = 50
T = 0.25
r = 0.1
q = 0
sigma = 0.4
```

直接調整 **#main** 下面的變數，呼叫函式存入變數，再印出即可 (所有參數以及函式都已預先輸入好，直接執行即可以看到精美的結果)。

輸出看起來會是這樣：

```
=====
Lookback Option
[ Smax,t = 50 ]
-----
n = 100
(CRR Binomial Tree) Price of European Lookback Put : 7.2369
(CRR Binomial Tree) Price of American Lookback Put : 7.4396
-----
n = 300
...
```

(2) Monte-Carlo: Option_Lookback_MonteCarlo.py

```
def lookback_MC(StMax, St, T, r, q, sigma, n, sims, reps):...

# main
StMax = 70
St = 50
T = 0.25
r = 0.1
q = 0
sigma = 0.4
...
```

直接調整 **#main** 下面的變數，呼叫函式存入變數，再印出即可 (所有參數以及函式都已預先輸入好，直接執行即可以看到精美的結果)。

輸出看起來會是這樣：

```
=====
Lookback Option : European Put
```

```
[ Smax,t = 50 ]
-----
平均 : 7.111868
標準誤 : 0.054249
九十五%信賴區間 : [7.003369, 7.220366]
...
```

(2) Bonus2: Option_Lookback_Cheuk&Vorst.py

```
def lookback_CRR_CheukAndVorst(St, T, r, q, sigma, layers, type):...

# main
St = 50
T = 0.25
r = 0.1
q = 0
sigma = 0.4
```

直接調整 `#main` 下面的變數，呼叫函式存入變數，再印出即可（所有參數以及函式都已預先輸入好，直接執行即可以看到精美的結果）。

輸出看起來會是這樣：

```
=====
European Lookback Option
[ Smax,t = 50 ]
-----
n = 1000
(CRR Binomial Tree) Price of European Lookback Put : 7.61 (Cheuk & Vorst)

=====
American Lookback Option
[ Smax,t = 50 ]
-----
n = 1000
(CRR Binomial Tree) Price of American Lookback Put : 7.8086 (Cheuk & Vorst)
```