

CISC 5352 Financial Data Analytics Quiz (1)¹

¹Please turn in your workable codes and corresponding running results.

1. Determine T/F about the following statements. (10 points)

1. Python is a language like C and it is not an OOP language (✗)
2. Black–Scholes model assumes stock returns are normally distributed (✓)
3. Volatility can be viewed as the ‘standard deviation’ of a stock, which is an index of stock risk (✓)
4. We can compute stock volatility not using the stock’s historical data (✗)
5. Expression is meaningful, i.e., it will have a return value, in python but not in C++ (✓)
6. sys.maxint in python is the MAX_INT in C++ (✓)
7. We can have while... else statement in python (✓)
8. Recursion generally uses more memory units than its corresponding iteration (✗)

2 Programming assignments (30 points)

- Download PyCharm and finish the following coding assignments
 1. Write a python program to calculate the the circumference of a circle such that
 - (a) 1. input the radius
 - (b) 2. output the circumference
 2. Write a program called demoPythonMaxInteger.py to print the largest integer in your computer
 3. Write a small financial calculator such that, principal, interest rate and number of years are entered from keyboard. (You need to use a monthly compound model)
 4. Do lab assignment 3
 5. Write a python program to calculate the following values
 - (a) $\sum_{n=1}^{\infty} \frac{(-1)^{n+1}}{n} \left(\frac{2}{3}\right)^n$
 - (b) $\lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^{2n}$