# Assignment1

### Question 1

1. Answer shows in the code
2. 4906
3. Round to the 4-th decimal point is 0.8492(0.8491846718304211)
4. 3928.8645

### Question 2

1. Method “a”: 3860.0276797498113 Method “b”: 4626.631381867934
2. Method “a”
3. 15928.0
4. 1080.6451612903227
5. 3613.25

### Question 3

1. Highest value diamond, color: D clarity: IF depth: 63.3 table: 59
2. Lowest value diamond, color: J clarity: SI2 depth: 63.3 table: 58

### Question 4

I didn’t use the website the professor gave us during the course, because the 102-carat diamond will be auction on Oct. 5. So I can’t know the price per carat right now. Then I find another website: https://www.cnn.com/style/article/diamond-auction-hong-kong/index.html In this website, it says “Of these, the most expensive was a rectangular 163.41-carat diamond, which sold for $33.7 million at Christie's in Geneva”. So, the price per carat is $206229.7289. Because this one is the most expensive one, its price has a very big different with my price. And the most important reason is the other parameters of the diamond except the carat. And I use the method “b” to calculate the price, it is $471916.40095052926. Even if compare to the estimate price for the diamond will be auction on Oct. 5(10-30million), my price is much lower than that. And for a commodity like diamond, we can’t think that its price increases linearly. The price of a 100 carats diamond is not equal to the sum of the prices of 100 1 carat diamonds. The larger the diamond, the rarer and more expensive. And the better the quality of the diamond will increase its price. So most of our samples here are one-carat diamonds. The calculated diamond price will of course be far from the 100-carat diamonds auctioned.

### Preliminary Assignment

##### Task 1

Stock ticket: HSBC

The answer of this assignment will be shown by code in the ZIP file.