Please answer all questions. All graphs must be completely labeled. All work must be shown.

1. The exchange rates below represent the international values of currencies in the spot market on a given day. Use triangular arbitrage to see whether an arbitrage opportunity exists. Further, prove your answer utilizing a $1 million investment:

   \[
   \begin{align*}
   \text{Yen/S} &= 110 \\
   \text{Euro/S} &= .82 \\
   \text{Euro/Yen} &= .007813
   \end{align*}
   \]

2. Suppose you are offered the opportunity to lock in an options contract on the British Pound at $1.88. You are bullish on the British Pound, so you put in a Call (six month) on the pound at the above value. During the strike period, the Pound is valued at $2.02.

   a. If you must pay 4% of the total contract as a premium, and you have $20,000 to invest, what is the dollar value of your total option contract? What is that in British pounds?
   
   b. What is your profit (or loss) on the contract?
   
   c. If the Pound went to $1.84, demonstrate that you are worse off exercising the contract.
3. Suppose the numbers below represent Denmark’s international transactions in 2016. Use them to construct:

a. A current account
b. A capital account

Real Estate Acquisitions by Denmark overseas = $20 B
Imports of Goods = $49 B
Foreign Purchases of Danish Companies/establishment of companies = $8 B
Danish purchases of foreign financial assets = $51 B
Foreign Purchases of Danish financial assets = $49 B
Danish Purchases of Foreign Companies/establishment of companies = $9 B
Export of Goods = $52 B
Unilateral transfers abroad = $2 B
Import of services = $9 B
Foreign purchases of Danish Real Estate = $21 B
Unilateral transfers to the Denmark = $1 B
Export of Services = $ 7 B

Part II – Demonstrate the off-setting nature of the capital and current accounts.
Part III – What component of the capital account is equal to DFI (both in and out)?