1. Suppose Nation 1 is capital abundant and Nation 2 is labor abundant according to price definition. Commodity X is capital intensive compared to commodity Y. The other assumptions of the "Heckscher-Ohlin" model are applicable. Consider the following scenarios.
    Scenario1: Previously, the nations were engaged in Free trade.
    Scenario2: Due to an imminent war, the nations impose a complete trade ban on each other.

    As the economies move from Scenario1 to Scenario2, analyze the impact on the real income of
    a) scarce and b) abundant factors of production in <u>Nation1 (ONLY)</u>.
    Use an appropriate diagram to support your analysis.   [8]

2. The production function for Machines (M) is $Q_M = \sqrt{K.L_M}$ and Fruits (F) is $Q_F = \sqrt{T.L_F}$
    K and T is specific factor used in the production of M and F respectively. L_i denote the mobile factor used in the production of $i = M, F$. Available supply of L=K=T=100 units.
    A. Under autarky, suppose price per unit of machine = price per unit of fruit =1. Calculate the nominal wage rate prevailing in this economy under autarky.   [3]
    B. Under free trade, suppose price per unit of machine increases to 2, ceteris paribus. Calculate the nominal wage rate prevailing in this economy under free trade.   [3]
    C. If the economy moves from autarky to free trade, will the mobile factor be better or worse off? Explain using graph and economic analysis.   [3]
    D. If the economy moves from autarky to free trade, will the specific factor used in M production be better or worse off? Explain using graph and economic analysis.   [2]
    E. If the economy moves from autarky to free trade, will the specific factor used in F production be better or worse off? Explain using graph and economic analysis.   [2]

3. Hours required to produce 1 unit of cheese and wine in Foreign and Home country are summarized below.

	Foreign	Home
Cheese	6	5
Wine	6	2

    A. Draw the Consumption Possibility line(s) of Home and Foreign under Autarky.   [2]
    B. Draw the Consumption Possibility line(s) of Home and Foreign under Free Trade. [2]
    C. Suppose the Total demand for cheese relative to wine is given by the function:
    $$\frac{Demand_{cheese}}{Demand_{wine}} = 6 - 5\frac{P_{cheese}}{P_{wine}}$$
    Based on this information, calculate the ratio $\frac{Nominal\ Wage\ rate\ in\ Home}{Nominal\ Wage\ rate\ in\ Foreign}$ under Free trade regime.   [10]