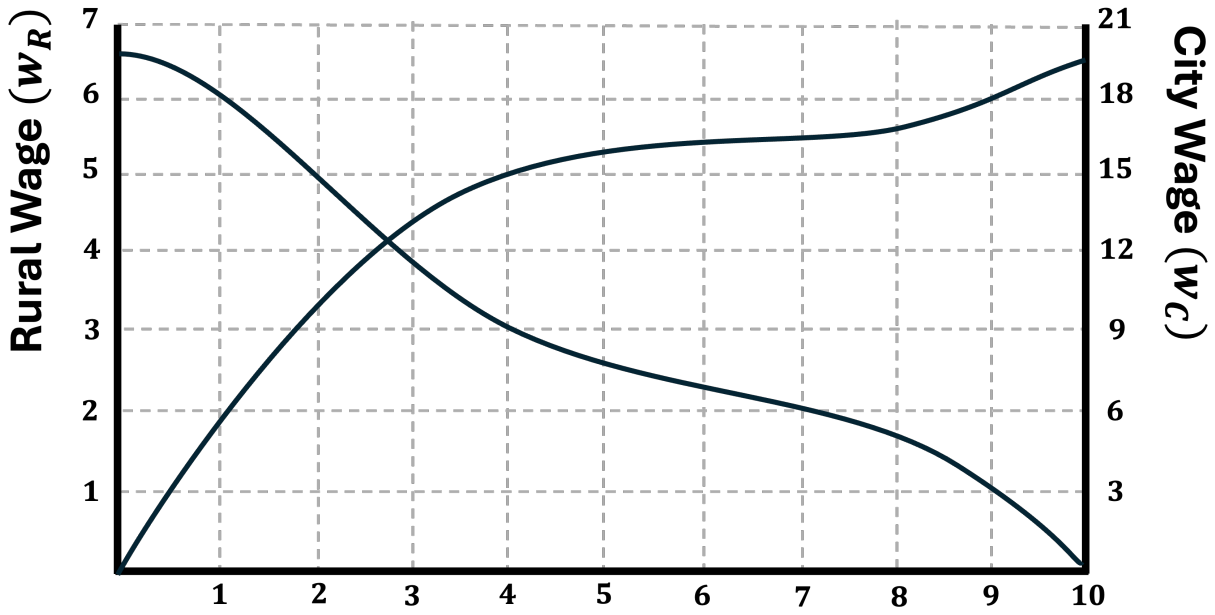
EC 390 Problem Set 04

Instructions: Answers must be submitted online through the designated Canvas assignment in a **PDF file**. Any other file type is not allowed. This Problem Set is due on **November 27 at 11:59pm**. Please write as legible and clearly as possible. You will not be given full credit if your answers cannot be easily understood.

Questions

1. Use the graph below to answer the following questions:



(a) [3 points] Suppose $w^C = 18$. How many people work in the city?

(b) [10 points] Suppose $w^C = 18$. Solve for the equilibrium and show it graphically. Show **ALL** your work to get the equilibrium

2. Using the demand and supply functions below, answer the following questions:

$$\textbf{Demand: } P = 120 - \frac{4}{7}Q_d \quad ; \quad \textbf{Supply: } P = \frac{1}{4}Q_s$$

Suppose a **Developing Nation** opens up to **free-trade** and now faces a world price, $P_w = 25$.

(a) [5 points] Sketch the market with the **new price line** and corresponding equilibria points for **quantity demanded and supplied**

(b) [10 points] Calculate the **equilibrium values for quantity demanded, quantity supplied, imports, and surplus values**.

(c) [2 points] Should we expect social welfare to be larger or smaller, relative to **no trade**?

(d) [5 points] Now suppose **the government intervenes, setting a tariff rate of** $t = 4$. Sketch the updated demand and supply curves. Label it properly and **highlight which regions are the deadweight loss areas**.

(e) [15 points] Calculate the equilibria:
(1) Quantity Supplied (2) Quantity Demanded (3) Quantity Imported (4) Consumer,Producer Surplus, and Government Revenues