Question 1. Assume ω = (ω₁, ω₂, ω₃, ω₄, ω₅) = (150, 80, 75, 25, 10). For each of the following, calculate the set of equilibrium money prices, $P^m$:

a) τ = (50, 25, 15, −15, −30)
b) τ = (50, 10, 0, −20, −40)
c) τ = (30, 20, −5, −10, −35)
d) τ = (3, 0, 0, −1, −2)
e) τ = (2, 2, 1, 1, −1)

Question 2. There are two monies, Red(R), and Blue(B). The units are $R\$ and $B\$. Calculate the exchange rate between $R\$ and $B\$ for each of the following tax and transfer systems (giving units in your answers):

a) $\tau^R = (2, 1, 0)$, $\tau^B = (5, 3, −12)$
b) $\tau^R = (5, 4, −2)$, $\tau^B = (1, 0, 0)$
c) $\tau^R = (8, −2, −6)$, $\tau^B = (4, 1, −5)$
d) $\tau^R = (7, 2, −12)$, $\tau^B = (6, 5, −2)$
e) In (a) - (d), are your answers independent of endowments? Why?

Question 3. Let there be two consumers, Mr. 1 and Mr. 2.

a) In $(\tau_1, \tau_2)$ space, graph the set of balanced taxes $F_{bal}$.
b) Graph the set of bonafide taxes, $F_{bon}$. 
c) Let $\omega = (3, 7)$. Graph the set of normalized bonafide taxes, $F^n_{\text{bon}}$, i.e. the set of taxes consistent with $P^m = 2$.

d) Let $\omega = (3, 7)$. Use the diagram in (c) to calculate the set of equilibrium money prices.
   Hint: Use absence of money illusion.