QUIZ 3

How to solve for change in factor prices in SFM?

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Points: \_\_\_\_\_\_\_\_\_\_\_\_/10

Suppose the payments to labor and capital in manufacturing and agriculture are given by the following:

**Manufacturing:**

Sales revenue =PM \* QM = $150

Payments to labor = W \* LM =$100

Payments to capital = RK \* K = $50

**Agriculture:**

Sales revenue = PA \* QA = $150

Payments to labor = W \* LA = $50

Payments to land = RZ \*Z = $100

Assumption: The relative price of manufactures, PM / PA, decreases because of a rise in PA, holding PM constant.

Suppose the following price changes:

Manufacturing: Percentage increase in price = ΔPM / PM = 0%

Agriculture: Percentage increase in price = ΔPA / PA = 10%

Percentage increase in the (nominal) wage = ΔW / W = 5%

**Q1. Calculate the Percentage change in Rental on capital**

Step 1. Rental on capital =

Step 2. Change in Rental on capital =

Step 3. Percentage change in Rental on capital =

Step 4. Substituting the information above gives:

So, (ΔRK / RK) is \_\_\_\_\_\_\_\_\_\_\_(greater/less) than (ΔPM / PM ) \_\_\_\_\_\_\_\_\_ (greater/less) than (ΔW/W)

**Q2. Calculate the Percentage change in Rental on land**

Step 1. Rental on land =

Step 2. Change in Rental on land =

Step 3. Percentage change in Rental on land =

Step 4. Substituting the information above gives:

So, (ΔRZ/ RZ) \_\_\_\_\_\_ (greater/less) than (ΔPA / PA ) \_\_\_\_\_\_\_\_\_ (greater/less) than (ΔW/W)

**Q3. Write down the general equation for the change in factor prices.**