$A_1 = 5 \quad A_2 = 6$

$B_1 = 7 \quad B_2 = 4$

2-Sector model

$$L(x_1) = 5 - \frac{5}{2}x_1 \qquad L(x_2) = 10 - 3x_2$$

$$F(x_1) = 5x_1 \qquad F(x_2) = \frac{7}{2}x_2$$

$$\pi_1 = P_1 \cdot Q_1 - \left[\left(5 - \frac{5}{2}x_1\right) + 5x_1 + P(x_1)\right]$$

$$\pi_2 = P_2 Q_2 - \left[(10 - 3x_2) + \frac{7}{2}x_2 + P(x_2)\right]$$

Bid-Rent:

$$P(x_1) = P_1 Q_1 - 5 - \frac{5}{2}x_1$$

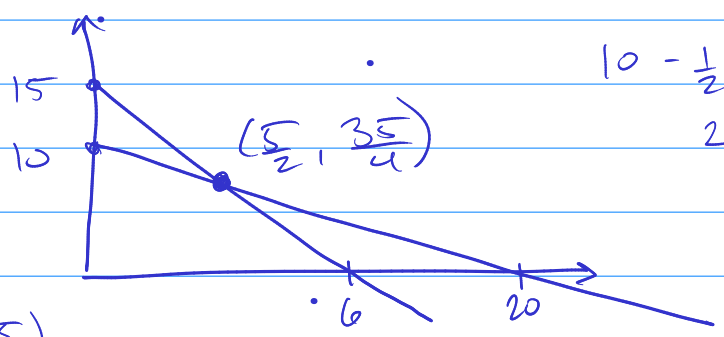
$$P(x_2) = P_2 Q_2 - 10 - \frac{1}{2}x_2$$

Assume $TR = P_1 Q_1 = P_2 Q_2 = 20$

Draw Bid-rent curves:

$$P(x_1) = 20 - 5 - \frac{5}{2}x_1 = 15 - \frac{5}{2}x_1$$

$$P(x_2) = 20 - 10 - \frac{1}{2}x_2 = 10 - \frac{1}{2}x_2$$



$$10 - \frac{1}{2}x = 15 - \frac{5}{2}x$$

$$2x = 5$$

$$x^* = \frac{5}{2}$$

$$P(x^*) = 10 - \left(\frac{1}{2}\right)\left(\frac{5}{2}\right) = \frac{35}{4}$$

Sector 1 $\in [0, \frac{5}{2})$

Sector 2 $\in (\frac{5}{2}, 20]$