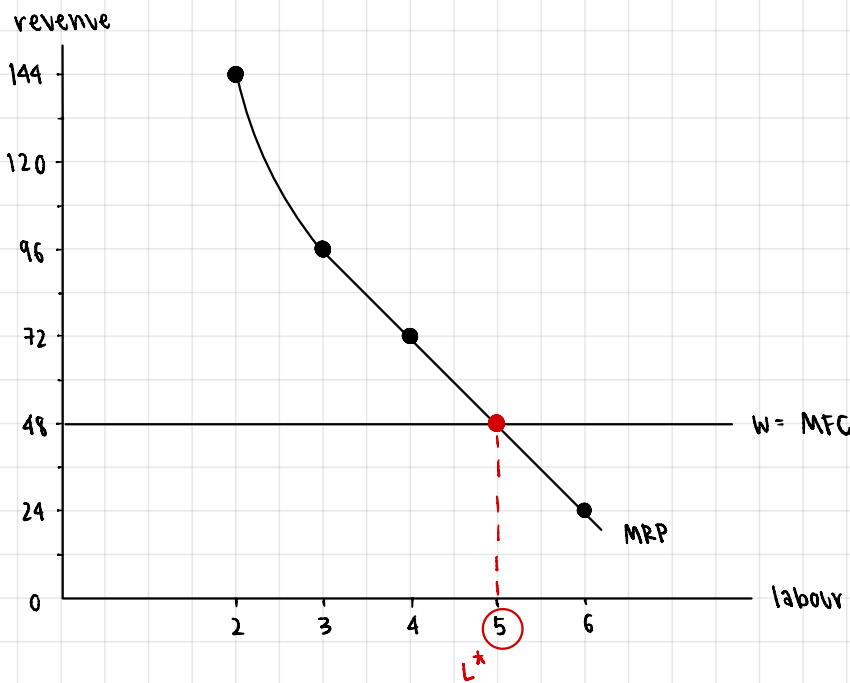


Assignment 3

1. a)



Since product market is perfectly competitive ($P = MR$), $MRP = MP \times MR = MP \times P$.

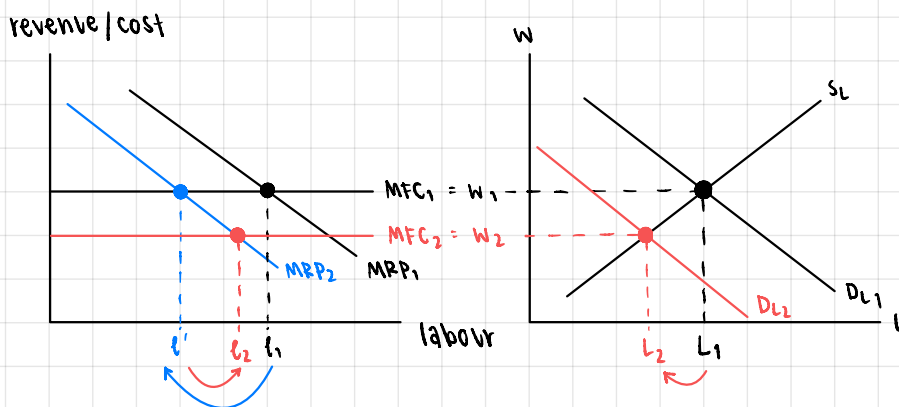
MRP : marginal revenue product

MFC = wage : marginal factor cost

optimal units of labour to maximise profit is when $MRP = MFC$, marginal benefit = marginal cost.

$\rightarrow L^* = 5 \#$

b) Lower consumer's purchasing power shifts MRP curve downwards as demand and price drop in the product market. Firm demands less labour so D_L shifts left and wage drops.



This results in less units of labour hired by this firm ($l_1 \rightarrow l_2$).

2. a) $L_A = \frac{P - MC}{P} = \frac{1 - 0.2}{1} = 0.8 \#$

b) $H = \sum_{i=1}^3 S_i^2 = 0.5^2 + 0.2^2 + 0.3^2 = 0.38 \#$

c) $H = 0.5^2 + 0.5^2 = 0.5 \#$

3. a) market power, seems like consumers are not enjoying as much consumer surplus as they expected
- b) moral hazard, Morpheus receives less benefit due landlord's inability to monitor the neighbour's behaviour changes
- c) adverse selection, the firm selectively provides the employee benefit
- d) public goods, no firm would provide earthquake alarming system as it is non-profitable
- e) not a market failure, the two firms just seem to target different types of customers