

FACTOR MARKETS

Problem #1

Verify whether the following statements are correct and justify your answer:

- a) The demand function for factor x in a purely competitive market is given by the formula $p_x = MFC$, where p_x is the factor price.
- b) Pure economic rent constitutes remuneration of a factor, whenever demand for the latter is perfectly inelastic.
- c) If capital and labor are the only factors of production, increasing the amount of capital used in production results in an increase of the marginal product of labor, provided that capital and labor are substitutes.

Problem #2

Verify whether the following statements are correct and justify your answer:

- a) If $MP_L/p_L < MP_K/p_K$ (conventional notation), then an enterprise operating under pure competition conditions will substitute factor L for factor K .
- b) A monopsony, competitive in the output market, maximizes its profits by setting the employment of a certain factor at a level ensuring the equality of the marginal return and marginal cost of this factor.
- c) When the output market is purely competitive and a non-discriminating monopsony operates in the labor market, the employment level is determined by the point, where the wage is equal to the revenue (value) of the marginal product.
- d) When a monopoly is present in the output market and a non-discriminating monopsony operates in the labor market, the employment level is determined by the point, where the marginal cost of labor is equal to the value of its marginal product.
- e) When the output market is monopolized and a non-discriminating monopsony operates in the labor market, then $MRP < MVP$.

Problem #6

A monopsony faces the following factor supply curve x : $P_x = 5 + x/20$ and the value of the marginal product is $MVP_x = 100 - x/15$. How many units of x will the monopsony employ? Find this factor's price. Assume there is pure competition in the product market.

Problem #7

If the market supply curve of a given factor is horizontal, what will the marginal expenditure curve look like? Explain.

Problem #11

Do firms where costs of training and employing new workers are relatively high have relatively constant employment in the event of short-run fluctuations of demand for their products? Explain.

Problem #12

Explain why:

- a) Citizens of the former Soviet Union work unofficially in Poland while in Poland there is unemployment.
- b) Music and sport stars earn tens of thousands dollars for taking part in TV advertisements lasting 30 seconds.
- c) A jumbo jet that can take 400 passengers on board is more expensive than a similar plane that can take 250 passengers although the production costs of both models are the same.