Exercise walk-through

Changes in Factor Demand and Factor Supply ▪ 5.2

eXercise

You must be able to

- identify the determinants that shift **factor demand 要素需求**, including the output price and worker **productivity**
- explain how the price of a related input shifts factor demand
- identify the determinants of **factor supply 要素供给**
- predict the effect of a shift on the equilibrium **wage** and quantity

Method — Factor demand shifters

Since demand for a factor is derived from its MRP, it rises when the **output price** rises or workers become more **productive**. A change in the price of a related input can also shift it.

Method — Factor supply shifters

The **number of available workers**, and their willingness to work at each wage.

Method — Equilibrium effects

More labour **demand** $\rightarrow$ higher wage and quantity. More labour **supply** $\rightarrow$ lower wage, higher quantity.

Practice 2.1 ▪ 1 mark

State one determinant that shifts factor demand.

Solution 2.1

Method: Factor demand shifters

Worked steps

any one of: the output price, worker productivity, the price of a related input **B1**.

Practice 2.2 ▪ 1 mark

State how an increase in worker productivity affects factor demand.

Solution 2.2

Method: Factor demand shifters

Worked steps

it increases factor demand (higher MRP) **B1**.

Practice 2.3 ▪ 2 marks

State the effect of an increase in the number of available workers on the equilibrium wage.

Solution 2.3

Method: Factor supply shifters

Worked steps

the wage falls and the quantity of labour rises **B1** **B1**.

Exam-style 3.1 ▪ 1 mark

Factor demand rises when the price of the good it helps make

A falls

B rises

C is zero

D is fixed by law

Solution 3.1

Method: Factor demand shifters

A falls

B rises ✓

C is zero

D is fixed by law

Worked steps

B.

Exam-style 3.2 ▪ 1 mark

An increase in labour supply, other things equal,

A raises the wage

B lowers the wage

C raises MRP

D has no effect

Solution 3.2

Method: Equilibrium effects

A raises the wage

B lowers the wage ✓

C raises MRP

D has no effect

Worked steps

B.

Exam-style 3.3 ▪ 1 mark

The demand for a product rises sharply.
(a) State the effect on the MRP of the labour making it.
(b) State the effect on the demand for that labour.
(c) State the effect on the equilibrium wage.

Solution 3.3

Method: Equilibrium effects

Worked steps

(a) it rises **B1**. (b) labour demand rises **B1**. (c) the equilibrium wage rises **B1**.