

Exercise walk-through

Perfect Competition ■ 3.7

eXercise

You must be able to

- list the characteristics of a **perfectly competitive market** 完全竞争市场
- explain why a competitive firm is a **price taker** 价格接受者 with $P = MR$
- explain how entry and exit drive long-run equilibrium to $P = MC = \min ATC$
- explain why perfect competition achieves **productive** and **allocative efficiency**

Method — Characteristics

Many firms, identical products, free entry and exit, and perfect information.

Method — Price taker

Each firm is too small to affect the price, so it faces a **perfectly elastic (horizontal)** demand curve at the market price, with $P = MR$.

Method — Long-run equilibrium

Entry and exit push the market to $P = MC = \text{minimum } ATC$, where firms earn **normal profit** — both **productively** (min ATC) and **allocatively** ($P = MC$) efficient.

Practice 2.1 ■ 2 marks

List two characteristics of a perfectly competitive market.

Solution 2.1

Method: Price taker

Worked steps

any two of: many firms, identical products, free entry and exit, perfect information
B1 **B1**.

Practice 2.2 ■ 1 mark

State why a competitive firm is a price taker.

Solution 2.2

Method: Price taker

Worked steps

it is too small to affect the market price, so it takes the price as given **B1**.

Practice 2.3 ■ 1 mark

State the long-run profit level in perfect competition.

Solution 2.3

Method: Long-run equilibrium

Worked steps

normal profit (zero economic profit) **B1**.

Exam-style 3.1 ■ 1 mark

A perfectly competitive firm's demand curve is

- A** downward-sloping
- B** perfectly elastic (horizontal)
- C** vertical
- D** upward-sloping

Solution 3.1

Method: Price taker

- A downward-sloping
- B perfectly elastic (horizontal)** 
- C vertical
- D upward-sloping

Worked steps

B.

Exam-style 3.2 ■ 1 mark

In long-run equilibrium, a competitive firm produces where P equals

- A** $MC = \text{minimum } ATC$
- B** a value above ATC
- C** a value below AVC
- D** a point where $MR > MC$

Solution 3.2

Method: Long-run equilibrium

- A** $MC = \text{minimum } ATC$ 
- B** a value above ATC
- C** a value below AVC
- D** a point where $MR > MC$

Worked steps

A.

Exam-style 3.3 ■ 1 mark

A competitive firm sells at the market price of \$10.

- (a) State its marginal revenue.
- (b) State whether it can raise its price above \$10, and why.
- (c) State its long-run economic profit.

Solution 3.3

Worked steps

(a) \$10 (equal to the price) **B1**. (b) no — products are identical, so buyers would switch to rivals **B1**. (c) zero economic profit (normal profit) **B1**.