

## 2.6 Market Equilibrium and Consumer and Producer Surplus

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Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

Total: 8 marks

### Objective

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Build the skills to answer exam questions on **market equilibrium and consumer and producer surplus**.

You must be able to:

- determine the **equilibrium price** and **quantity** where demand meets supply
- calculate **consumer surplus** 消费者剩余 and **producer surplus** 生产者剩余
- define **total surplus** 总剩余 and explain **allocative efficiency** 配置效率

### 1 Worked examples

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Study these first. Each one shows the method for a question type used later.

#### ■ Surplus areas

- **Consumer surplus** = area **below** the demand curve and **above** the price (what buyers gain).
- **Producer surplus** = area **above** the supply curve and **below** the price (what sellers gain).

#### ■ Allocative efficiency

**Total surplus** (CS + PS) is greatest at the competitive equilibrium, where **marginal benefit** equals **marginal cost** —the allocatively efficient quantity.

### 2 Practice

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2.1 Define consumer surplus. [1]

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2.2 Define producer surplus. [1]

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2.3 A good sells at \$10; a buyer was willing to pay \$16. Find the consumer surplus on

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that unit. [1]

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### 3 Exam-style questions

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3.1 Consumer surplus is the area [1]

- **A** above the demand curve
  - **B** below demand and above the price
  - **C** below the supply curve
  - **D** above the price and below supply
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3.2 A competitive market is allocatively efficient where [1]

- **A**  $MB > MC$
  - **B**  $MB = MC$
  - **C**  $MB < MC$
  - **D** the price is zero
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3.3 In a market, the equilibrium price is \$8. On one trade, the seller would accept \$5 and the buyer would pay \$12.

(a) Find the producer surplus on that trade. [1]

(b) Find the consumer surplus. [1]

(c) Find the total surplus. [1]

### 4 Go further

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- work through the **2.6 Market Equilibrium and Consumer and Producer Surplus** lesson on the **Learn** page;
- read the **Supply and Demand** section of the AP Microeconomics handout on the **Know** page.

## Solutions

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**2.1** the difference between what buyers are willing to pay and what they actually pay.

**2.2** the difference between the price sellers receive and the lowest they would accept.

**2.3**  $16 - 10 = \$6$ .

**3.1 B.**

**3.2 B.**

**3.3** (a)  $8 - 5 = \$3$ . (b)  $12 - 8 = \$4$ . (c)  $3 + 4 = \$7$ .