

Exercise walk-through

Inventory management ■ 4.2

eXercise

You must be able to

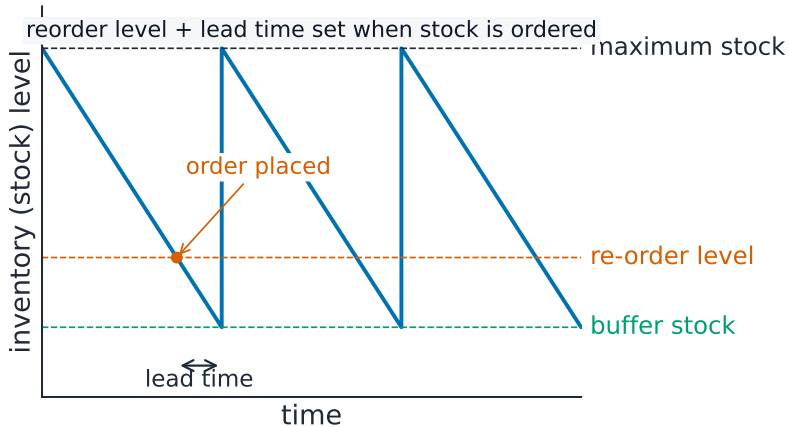
- explain the costs and benefits of holding inventory
- read an inventory control chart (re-order level, lead time, buffer, maximum)
- analyse and evaluate JIT versus JIC stock control

Method — Reading an inventory control chart

- **Re-order level:** the stock level that triggers a new order. **Lead time:** order → delivery.
- **Buffer inventory:** minimum safety stock for delays/extra demand. **Maximum inventory:** the most held.
- **JIT:** stock arrives as needed → almost none held → low holding cost, but a late delivery stops production. **JIC:** extra stock held → safer, but costs more to store.

Answer shapes: AO1 + AO2 + AO3 (reasoning chain) + AO4 (a supported judgement *in context*).

Method — Reading an inventory control chart

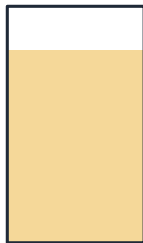


Stock is used up, then replenished when an order arrives after the lead time

Method — Reading an inventory control chart



just-in-time
(almost no stock)



just-in-case
(extra buffer stock)

Practice 2.1 ■ 2 marks

Define the term *buffer inventory*.

Solution 2.1

Method: Reading an inventory control chart

Worked steps

a minimum level of “safety” stock kept in case of delays in delivery or extra demand (2 for a clear definition; 1 for a partial idea).

Practice 2.2 ■ 2 marks

State what is meant by *lead time*.

Solution 2.2

Method: Reading an inventory control chart

Worked steps

the time between placing an order and receiving the goods (2 for a clear idea; 1 for a partial idea).

Practice 2.3 ■ 2 marks

State two costs to a business of holding inventory.

Solution 2.3

Method: Reading an inventory control chart

Worked steps

any two of: storage cost; insurance; money tied up in stock; risk of goods going out of date or being damaged ($1 + 1$).

Exam-style 3.1 ■ 3 marks

Explain one reason why a business holds buffer inventory.

Solution 3.1

Method: Reading an inventory control chart

Worked steps

[3] **AO1** 1 — name a reason (to avoid running out; to cover late deliveries or demand spikes). **AO2** up to 2 — develop it, e.g. buffer stock lets the firm keep selling if a delivery is late → no lost sales → customers stay satisfied (2 developed / 1 limited).

Exam-style 3.2 ■ 8 marks

Analyse two benefits to a business of using a **just-in-time** (JIT) system.

Solution 3.2

Method: Reading an inventory control chart

Worked steps

[8] For **each** of two benefits: **AO1** 1 + **AO2** 1 + **AO3** up to 2. Example chains — *lower holding cost*: almost no stock held → less storage and insurance → lower costs and more cash free. *Less waste*: stock does not sit and expire → fewer write-offs → lower costs. Maximum 4 per benefit, 8 total.

Exam-style 3.3 ■ 12 marks

A manufacturer is deciding whether to switch from just-in-case to **just-in-time** stock control. Evaluate this decision.

Solution 3.3

Method: Reading an inventory control chart

Worked steps

[12] **AO1** 2 / **AO2** 2 / **AO3** 2 / **AO4** up to 6. **For JIT:** lower holding costs, less waste, more cash and space. **Against:** a late delivery can halt production, it needs reliable suppliers and good IT, and there is no buffer for demand spikes. **Judgement:** JIT suits a firm with dependable local suppliers and steady demand, but a firm with unreliable supply or volatile demand may keep some buffer — it depends on supplier reliability and demand stability.