Accounting Units 3 & 4

Chapter 9 Valuing and managing inventory

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Theory

The **cost of inventory** is more than the price on the supplier's invoice. Under the accounting definition of an asset, inventory is recorded at the full sacrifice made to bring it into a **condition and location ready for sale**. This means the cost of a unit of inventory includes the **purchase price** *plus* every additional cost incurred to get that unit onto the shelf ready to be sold. Costs that meet this test are called **product costs**; costs that do not are called **period costs**, and the two are treated very differently in the records.

Product costs. A **product cost** is a cost incurred to get inventory into a **condition or location ready for sale**. It is **added to the cost of the inventory** — and therefore to the **inventory card** — raising the per-unit cost of the units it relates to. Common product costs are:

- **Cartage inwards** (also called **freight inwards** or **delivery inwards**) — the cost of transporting purchased inventory from the supplier to the business.
- **Customs duty** (**import duty**) — a charge paid to bring imported inventory into the country.
- **Modification** or assembly costs incurred to bring the inventory to a **saleable condition**.
- **Insurance of inventory in transit** — insuring the goods while they are being delivered.

Because a product cost is part of the sacrifice made to acquire the inventory asset, it is **capitalised** into the value of that inventory rather than expensed. The benefit of the cost is tied up in the asset and is only consumed — reported as an expense through **Cost of Sales** — when the inventory is sold. Adding the product cost gives a **faithful representation** of what the inventory actually cost the business, and it ensures the cost is **matched** against the sales revenue it helps to earn in the period the inventory is sold.

Period costs. A **period cost** is a cost that is **not** part of getting inventory into a condition or location ready for sale. It is **not added to inventory**; instead it is **expensed in the period in which it is incurred**, because its benefit relates to that period rather than to a particular unit of inventory. Common period costs are:

- **Advertising** — promoting the business or its products.
- **Delivery to customers** (**cartage outwards** / **freight outwards**) — delivering *sold* goods *to* customers. This happens *after* the inventory is already ready for sale, so it is not a product cost.
- **Storage of finished goods** — warehousing inventory that is already saleable.
- **Wages of sales staff** and other selling and administrative costs.

The classification test. For any cost connected with inventory, ask a single question: *was the cost incurred to get this inventory into a condition or location ready for sale?* If **yes**, it is a **product cost** — add it to the inventory card. If **no**, it is a **period cost** — expense it. The direction of freight is a useful signal: freight **inwards** (bringing purchases in) is a product cost, while freight **outwards** (sending sales out) is a period cost.

Recording a product cost in the inventory card. A product cost adds cost to a batch of inventory **without adding any units**. In the inventory card it is entered on its own line: the amount of the product cost is written in the **IN Total** column only (the IN Qty and IN Cost cells are left blank), and the affected batch is then **re-valued** in the BALANCE column at a higher per-unit cost. The new per-unit cost is:

$$\text{adjusted unit cost} = \text{original unit cost} + \frac{\text{product cost}}{\text{units in the batch}}$$

Only the batch to which the cost relates is re-valued; other cost-price layers already on hand are unchanged. Where a product cost carries GST, only the cost itself (the GST-exclusive amount) is added to the card — the GST is recorded separately in the **GST Clearing** account and never forms part of the inventory cost.

Effect on the reports. Because a product cost is carried inside the **Inventory** asset until the goods are sold, it increases the value of closing inventory reported in the Balance Sheet and does **not** reduce profit in the period of purchase. It is only reported as an expense (as part of Cost of Sales) when the inventory is sold. A period cost, by contrast, is expensed immediately and reduces profit in the period incurred. Misclassifying a product cost as a period cost therefore **understates the Inventory asset** and **understates profit** in the period the inventory is bought (if the

goods are still on hand); then, because the units carry a per-unit cost that is too low, it **understates Cost of Sales** and **overstates profit** in the later period when those goods are sold.

Worked model. Kingsley Timber sells the *Redwood* board and uses FIFO. On 1 April its card showed 10 boards at $28. On 3 April it purchased 20 boards at $40 (Inv. 330) and paid $60 cartage inwards to have that delivery brought to its yard (EFT 2140).

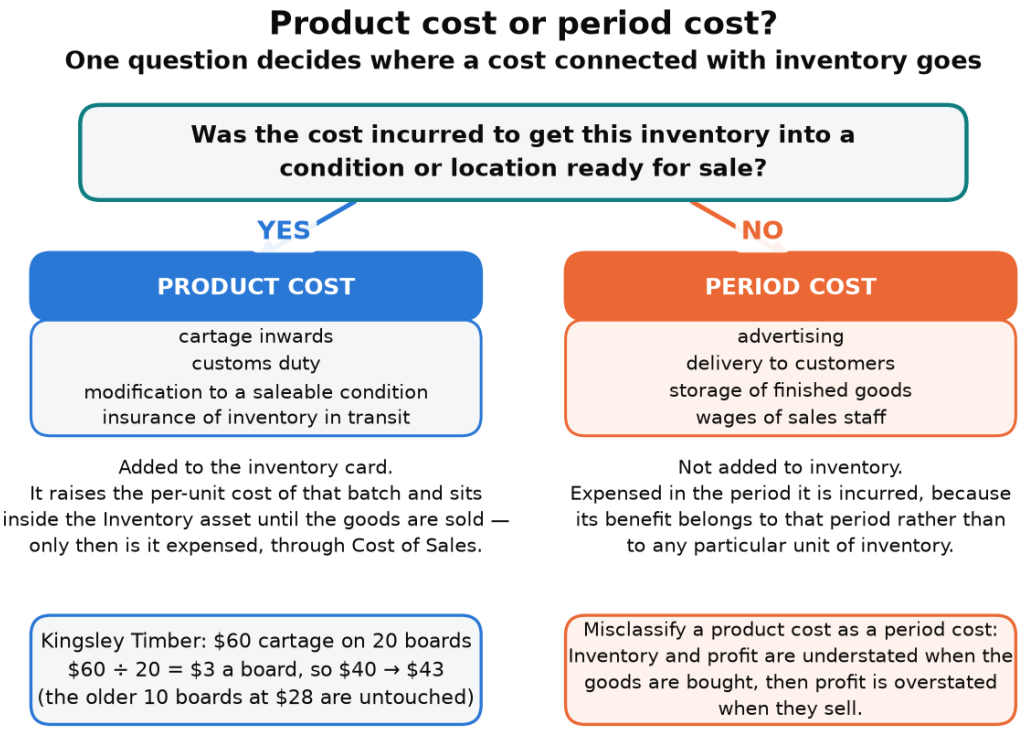
The cartage is a **product cost** relating to the 20 boards just purchased, so its $60 is added to that batch: $60 ÷ 20 = $3 per board, lifting the cost from $40 to $43. The opening 10 boards at $28 are unaffected.

Inventory Card — Redwood board (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Apr	Balance							10	28	280
3 Apr	Inv. 330	20	40	800				10	28	280
								20	40	800
3 Apr	EFT 2140 (cartage inwards)			60				10	28	280
								20	43	860

Closing inventory is 10 boards at $28 plus 20 boards at the adjusted cost of $43 = $280 + $860 = **$1 140**. The $60 cartage sits inside the Inventory asset and will only be expensed, through Cost of Sales, as these boards are sold.

The whole of this section reduces to one question, asked of every cost connected with inventory:



Freight inwards is a product cost; freight outwards is a period cost. GST never forms part of the inventory cost — it goes to GST Clearing.

The classification test for a cost connected with inventory, and what each answer does to the reports

The branch a cost takes decides which report it reaches and when. A **product cost** is capitalised into the inventory and only becomes an expense, through Cost of Sales, when the goods are sold; a **period cost** is expensed straight away.

The consequences of taking the wrong branch are set out on the right of the figure, and they run across **two** reporting periods, not one.

Worked examples (scaffolded)

Example 1 — a purchase plus cartage inwards

Brightwater Cycles uses FIFO for the *Cruiser* bicycle. On 1 May the card showed 6 Cruisers at $200. On 2 May it purchased 10 Cruisers at $250 (Inv. 415) and paid $50 cartage inwards on their delivery (EFT 3060).

Working	Comment
Opening balance: 6 Cruisers @ $200 = $1 200.	These units are not affected by the new cartage — it relates only to the 10 units delivered on 2 May.
Purchase (2 May): 10 @ $250 = $2 500 in the IN column (Inv. 415).	The invoice price is the starting cost; the cartage is added on top.
Cartage inwards $50 (EFT 3060) is a **product cost** — it gets the 10 Cruisers into a location ready for sale, so it is added to their cost.	Product costs are added to the inventory card, not expensed.
Spread over 10 units: $50 ÷ 10 = **$5 per unit**, so the batch rises from $250 to **$255**.	The cartage line shows the $50 in the IN Total column only — no extra units — then the balance is re-valued.
Closing balance = 6 @ $200 + 10 @ $255 = $1 200 + $2 550 = **$3 750**.	The Inventory asset now carries the full cost of getting the goods ready for sale.

Inventory Card — Cruiser bicycle (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 May	Balance							6	200	1200
2 May	Inv. 415	10	250	2500				6	200	1200
								10	250	2500
2 May	EFT 3060 (cartage inwards)			50				6	200	1200
								10	255	2550

Example 2 — customs duty on imported inventory, then a sale

Aurora Imports uses FIFO for the *Lumen* lamp. On 1 June the card showed 4 lamps at $18. On 4 June it imported 30 lamps at $22 (Inv. 522) and paid $90 customs duty on the shipment (Chq 214). On 15 June it sold 20 lamps (Inv. S61).

Working	Comment
Purchase (4 June): 30 lamps @ $22 = $660 (Inv. 522).	The invoice price excludes the duty payable to clear the imported goods.
Customs duty $90 (Chq 214) is a **product cost** — a cost of getting the imported lamps ready for sale.	Import/customs duty is always added to the cost of the inventory it relates to.
$90 ÷ 30 = **$3 per unit**, so the 30 lamps rise from $22 to **$25**; the opening 4 @ $18 are unchanged.	Only the imported batch bears the duty.
Sale (15 June): 20 lamps under FIFO — 4 @ $18 + 16 @ $25 = $72 + $400 = **$472** cost of sales.	The oldest cost ($18) is assigned first; the sale then crosses into the $25 units.
Closing balance = 14 @ $25 = **$350**.	The units left are all from the imported, duty-inclusive batch.

Inventory Card — Lumen lamp (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jun	Balance							4	18	72
4 Jun	Inv. 522	30	22	660				4	18	72
								30	22	660
4 Jun	Chq 214 (customs duty)			90				4	18	72
								30	25	750
15 Jun	Inv. S61				4	18	72	14	25	350
					16	25	400			

Worked examples (unscaffolded)

Example 3 — a modification cost added to inventory

Northpeak Furniture uses FIFO for the *Summit* desk. On 1 July the card showed 5 desks at $110. On 5 July it purchased 15 desks at $130 (Inv. 640) and paid a contractor $150 to modify those desks to a saleable condition (EFT 4120). Complete the inventory card.

The modification is a **product cost** — it brings the 15 purchased desks into a condition ready for sale — so its $150 is added to that batch: $150 ÷ 15 = $10 per desk, lifting the cost from $130 to $140. The opening 5 desks at $110 are unaffected.

Inventory Card — Summit desk (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jul	Balance							5	110	550
5 Jul	Inv. 640	15	130	1950				5	110	550
								15	130	1950
5 Jul	EFT 4120 (modification)			150				5	110	550
								15	140	2100

∴ closing inventory is 5 *Summit* desks at $110 plus 15 at $140 = $550 + $2 100 = **$2 650**.

Example 4 — two product costs, and classifying period costs

Coastline Traders uses FIFO for the *Vista* mirror. On 1 August it purchased 40 mirrors at $60 (Inv. 705) and paid $120 freight inwards on their delivery (EFT 5010). On 3 August it paid $80 customs duty on the shipment (Chq 330). During August it also paid $200 for advertising and $90 to deliver mirrors to customers. Complete the inventory card and classify the four costs.

Freight inwards and customs duty are **product costs** — both are incurred to get the mirrors into a condition and location ready for sale — so they are added to the card: freight $120 ÷ 40 = $3 (cost $60 → $63), then duty $80 ÷ 40 =

$2 (cost $63 → $65). Advertising ($200) and delivery to customers ($90) are **period costs** — they are not part of getting the mirrors ready for sale — so they are expensed in August and never touch the card.

Inventory Card — Vista mirror (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Aug	Inv. 705	40	60	2400				40	60	2400
1 Aug	EFT 5010 (freight inwards)			120				40	63	2520
3 Aug	Chq 330 (customs duty)			80				40	65	2600

∴ closing inventory is 40 *Vista* mirrors at $65 = **$2 600**. Total product cost added to inventory = $120 + $80 = $200; total period cost expensed in August = $200 + $90 = $290.

Practice questions — scaffolded

Question 1

Delta Sports uses FIFO for the *Ace* racquet. On 1 March the card showed 8 racquets at $30. On 4 March it purchased 12 racquets at $45 (Inv. 118) and paid $36 cartage inwards on the delivery (EFT 2201).

a. Complete the inventory card for March.

b. Calculate the adjusted per-unit cost of the 12 racquets purchased on 4 March.

c. State the value of closing inventory at 4 March.

Question 2

Harbourview Electrical uses FIFO for the *Volt* heater. On 1 April the card showed 5 heaters at $80. On 6 April it purchased 15 heaters at $100 (Inv. 233) and paid $75 cartage inwards on the delivery (EFT 2260).

a. Complete the inventory card for April.

b. Calculate the adjusted per-unit cost of the 15 heaters purchased on 6 April.

c. Explain in one sentence why the cartage inwards is added to the cost of the inventory rather than recorded as an expense.

Question 3

Riverbend Tools uses FIFO for the *Forge* hammer. On 1 May the card showed 10 hammers at $12. On 3 May it purchased 20 hammers at $15 (Inv. 340) and paid $20 cartage inwards (EFT 2288). On 18 May it sold 18 hammers (Inv. S51).

a. Complete the inventory card for May.

b. State the cost of sales for the sale on 18 May.

c. State the value of closing inventory at 18 May.

Question 4

Summit Cellars uses FIFO for the *Reserve* wine. On 1 June the card showed 6 cases at $50. On 5 June it purchased 24 cases at $70 (Inv. 451) and paid $48 cartage inwards on the delivery (EFT 2312).

a. Complete the inventory card for June.

b. Calculate the adjusted per-unit cost of the 24 cases purchased on 5 June.

c. State the effect of adding the cartage on the value of the Inventory asset.

Question 5

Coral Bay Marine uses FIFO for the *Nautic* anchor. On 1 July the card showed 4 anchors at $90. On 4 July it purchased 20 anchors at $120 (Inv. 560) and paid $40 freight inwards (EFT 2340). On 7 July it paid $60 customs duty on the same shipment (Chq 415).

a. Complete the inventory card for July.

b. Calculate the adjusted per-unit cost of the 20 anchors after both product costs.

c. State the value of closing inventory at 7 July.

Question 6

Ironbark Hardware uses FIFO for the *Titan* drill. On 1 August the card showed 7 drills at $60. On 5 August it purchased 18 drills at $85 (Inv. 612) and paid $54 to modify those drills to a saleable condition (EFT 2377).

a. Complete the inventory card for August.

b. Calculate the adjusted per-unit cost of the 18 drills purchased on 5 August.

c. Explain the effect on profit of treating the $54 modification as a product cost rather than a period cost, assuming none of the drills has yet been sold.

Practice questions — unscaffolded

Question 7

Classify each of the following costs as a **product cost** or a **period cost**: cartage inwards; customs (import) duty; wages of sales staff; advertising; modification to a saleable condition; delivery to customers (cartage outwards); insurance of inventory in transit; storage of finished goods.

Question 8

Westfield Auto uses FIFO for the *Grip* tyre. On 1 March the card showed 6 tyres at $40. On 5 March it purchased 24 tyres at $55 (Inv. 150) and paid $72 cartage inwards (EFT 2405). Prepare the inventory card and state the adjusted per-unit cost and the value of closing inventory.

Question 9

Pinnacle Sports uses FIFO for the *Alpine* boot. On 1 April the card showed 5 pairs at $60. On 4 April it imported 15 pairs at $80 (Inv. 262) and paid $60 customs duty (Chq 502). On 20 April it sold 12 pairs (Inv. S70). Prepare the inventory card and state the cost of sales and the value of closing inventory.

Question 10

Verde Landscaping uses FIFO for the *Terra* planter. On 1 May the card showed 10 planters at $15. On 6 May it purchased 40 planters at $25 (Inv. 375) and paid $80 freight inwards (EFT 2440). On 9 May it paid $120 customs duty on the same shipment (Chq 540). Prepare the inventory card and state the adjusted per-unit cost and the value of closing inventory.

Question 11

Rowan & Co purchased 50 *Cedar* stools at $44 each (Inv. 480). In the same period it paid $150 freight inwards and $100 to assemble the stools to a saleable condition; it also paid $220 for advertising and $130 to deliver sold stools to customers. All 50 stools remain on hand at the end of the period. State the total product cost and the total period cost, calculate the adjusted per-unit cost of the stools, and state the value of closing inventory.

Question 12

Larkspur Imports purchased 30 *Bloom* vases at $50 each (Inv. 590) and paid $90 customs duty on the import (Chq 610). The bookkeeper recorded the duty as an expense (a period cost) instead of adding it to the cost of inventory. All 30 vases are unsold at the end of the period. Calculate the correct value of closing inventory and the value recorded under the bookkeeper's treatment, and state the effect of the error on the Inventory asset and on profit.

Question 13

Northbridge and Southbridge each purchased 20 *Orbit* speakers at $70 each and each paid $60 cartage inwards on the delivery. Northbridge added the cartage to the cost of the inventory; Southbridge recorded it as an expense. Neither business has sold any of the speakers. Calculate the value of closing inventory for each business and state which reports the higher profit, and by how much.

Question 14

Kestrel Trading uses FIFO for the *Falcon* jacket. Its inventory card shows a single batch of 25 jackets, valued in total at $2 125 after cartage inwards had been added. The supplier's invoice priced the jackets at $80 each. Using account reconstruction, calculate the cartage inwards paid and the adjusted per-unit cost of the jackets. (You are not required to prepare the card.)

Question 15

Highland Outfitters uses FIFO for the *Ridge* jacket. On 1 September the card showed 8 jackets at $50. On 4 September it purchased 22 jackets at $70 (Inv. 710) and paid $44 cartage inwards (EFT 2560). On 17 September it sold 15 jackets (Inv. S82). Prepare the inventory card and state the cost of sales and the value of closing inventory.

Question 16

The owner of Cedarvale Traders argues that because cartage inwards and delivery to customers are "both just freight", the two should be treated the same way in the records. Distinguish between a product cost and a period cost, explain why the accountant treats cartage inwards as a product cost but delivery to customers as a period cost, and discuss the effect on the firm's reports of wrongly treating cartage inwards as a period cost.

Question 17

With reference to a relevant qualitative characteristic and the definition of an asset, justify why the customs duty paid by Larkspur Imports in Question 12 should be added to the cost of inventory rather than reported as an expense in the period it is paid.

Question 18

Brookfield Trading uses FIFO for the *Cove* kayak. On 1 October the card showed 3 kayaks at $300. On 3 October it imported 20 kayaks at $400 (Inv. 820) and paid $100 freight inwards on the shipment (EFT 2600). On 5 October it paid $200 customs duty on the same shipment (Chq 705). On 21 October it sold 14 kayaks (Inv. S90). During October it also paid $250 for advertising. Prepare the inventory card and state the cost of sales, the value of closing inventory, and the treatment of the advertising.

Answers

1.
    b. $48 c. $816
2.
    b. $105 c. See solutions
3.
    b. Cost of sales $248 c. $192
4.
    b. $72 c. The Inventory asset increases by $48 (closing inventory $2 028)
5.
    b. $125 c. $2 860
6.
    b. $88 c. See solutions
7. Product: cartage inwards; customs (import) duty; modification to a saleable condition; insurance of inventory in transit. Period: wages of sales staff; advertising; delivery to customers (cartage outwards); storage of finished goods.
8. Adjusted cost $58; closing inventory $1 632
9. Adjusted cost $84; cost of sales $888; closing inventory $672
10. Adjusted cost $30; closing inventory $1 350
11. Product cost $250; period cost $350; adjusted cost $49; closing inventory $2 450
12. Correct $1 590; bookkeeper's treatment $1 500; Inventory and profit each understated by $90
13. Northbridge $1 460; Southbridge $1 400; Northbridge reports the higher profit, by $60
14. Cartage inwards $125; adjusted per-unit cost $85
15. Adjusted cost $72; cost of sales $904; closing inventory $1 080
16. See solutions
17. See solutions
18. Cost of sales $5 465; closing inventory $3 735; advertising $250 is a period cost (expensed)

Fully-worked solutions

Question 1

Inventory Card — Ace racquet (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Mar	Balance							8	30	240
4 Mar	Inv. 118	12	45	540				8	30	240
								12	45	540
4 Mar	EFT 2201 (cartage inwards)			36				8	30	240
								12	48	576

b. $36 ÷ 12 = $3 per racquet, so the batch rises from $45 to **$48**. c. Closing inventory = 8 @ $30 + 12 @ $48 = $240 + $576 = **$816**.

Question 2

Inventory Card — Volt heater (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Apr	Balance							5	80	400
6 Apr	Inv. 233	15	100	1500				5	80	400
								15	100	1500
6 Apr	EFT 2260 (cartage inwards)			75				5	80	400
								15	105	1575

b. $75 ÷ 15 = $5 per heater, so the batch rises from $100 to **$105** (closing inventory = $400 + $1 575 = $1 975).

c. The cartage inwards is a cost of getting the 15 heaters into a location ready for sale, so it is part of the cost of the inventory asset and is added to the card rather than expensed.

Question 3

Inventory Card — Forge hammer (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 May	Balance							10	12	120
3 May	Inv. 340	20	15	300				10	12	120
								20	15	300
3 May	EFT 2288 (cartage inwards)			20				10	12	120
								20	16	320
18 May	Inv. S51				10	12	120	12	16	192
					8	16	128			

b. Cost of sales = 10 @ $12 + 8 @ $16 = $120 + $128 = **$248** (the $20 cartage raised the new batch from $15 to $16). c. Closing inventory = 12 @ $16 = **$192**.

Question 4

Inventory Card — Reserve wine (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jun	Balance							6	50	300
5 Jun	Inv. 451	24	70	1680				6	50	300
								24	70	1680
5 Jun	EFT 2312 (cartage inwards)			48				6	50	300

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
								24	72	1728

b. $48 ÷ 24 = $2 per case, so the batch rises from $70 to **$72**. c. Adding the cartage increases the Inventory asset by **$48** (closing inventory = $300 + $1 728 = **$2 028**).

Question 5

Inventory Card — Nautic anchor (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jul	Balance							4	90	360
4 Jul	Inv. 560	20	120	2400				4	90	360
								20	120	2400
4 Jul	EFT 2340 (freight inwards)			40				4	90	360
								20	122	2440
7 Jul	Chq 415 (customs duty)			60				4	90	360
								20	125	2500

b. Freight $40 ÷ 20 = $2 (cost $120 → $122), then duty $60 ÷ 20 = $3 (cost $122 → **$125**).

c. Closing inventory = 4 @ $90 + 20 @ $125 = $360 + $2 500 = **$2 860**.

Question 6

Inventory Card — Titan drill (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Aug	Balance							7	60	420
5 Aug	Inv. 612	18	85	1530				7	60	420
								18	85	1530
5 Aug	EFT 2377 (modification)			54				7	60	420
								18	88	1584

b. $54 ÷ 18 = $3 per drill, so the batch rises from $85 to **$88** (closing inventory = $420 + $1 584 = $2 004).

c. As a product cost the $54 is carried inside the Inventory asset and is not expensed until the drills are sold, so profit is **unaffected** this period. If it had been treated as a period cost it would have been expensed now, reducing profit by $54 even though the drills are still on hand.

Question 7

Product costs (added to the cost of inventory): cartage inwards; customs (import) duty; modification to a saleable condition; insurance of inventory in transit — each is incurred to get the inventory into a condition or location ready for sale.

Period costs (expensed in the period incurred): wages of sales staff; advertising; delivery to customers (cartage outwards); storage of finished goods — none is part of getting the inventory ready for sale.

Question 8

Inventory Card — Grip tyre (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Mar	Balance							6	40	240
5 Mar	Inv. 150	24	55	1320				6	40	240
								24	55	1320
5 Mar	EFT 2405 (cartage inwards)			72				6	40	240
								24	58	1392

$72 ÷ 24 = $3 per tyre, so the adjusted cost is **$58**; closing inventory = 6 @ $40 + 24 @ $58 = $240 + $1 392 = **$1 632**.

Question 9

Inventory Card — Alpine boot (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Apr	Balance							5	60	300
4 Apr	Inv. 262	15	80	1200				5	60	300
								15	80	1200
4 Apr	Chq 502 (customs duty)			60				5	60	300
								15	84	1260
20 Apr	Inv. S70				5	60	300	8	84	672
					7	84	588			

Duty $60 ÷ 15 = $4, so the adjusted cost is **$84**. Cost of sales = 5 @ $60 + 7 @ $84 = $300 + $588 = **$888**; closing inventory = 8 @ $84 = **$672**.

Question 10

Inventory Card — Terra planter (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 May	Balance							10	15	150
6 May	Inv. 375	40	25	1000				10	15	150
								40	25	1000
6 May	EFT 2440 (freight inwards)			80				10	15	150
								40	27	1080
9 May	Chq 540 (customs duty)			120				10	15	150
								40	30	1200

Freight \$80 ÷ 40 = \$2 (cost \$25 → \$27), then duty \$120 ÷ 40 = \$3 (cost \$27 → **\$30**); closing inventory = 10 @ \$15 + 40 @ \$30 = \$150 + \$1 200 = **\$1 350**.

Question 11

Inventory Card — Cedar stool (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
2 Jun	Inv. 480	50	44	2200				50	44	2200
2 Jun	EFT 2470 (freight inwards)			150				50	47	2350
4 Jun	EFT 2488 (assembly)			100				50	49	2450

Product costs (added to inventory) = freight inwards \$150 + assembly \$100 = **\$250**. **Period costs** (expensed) = advertising \$220 + delivery to customers \$130 = **\$350**. Adjusted per-unit cost = (\$2 200 + \$250) ÷ 50 = \$2 450 ÷ 50 = **\$49**; closing inventory = 50 @ \$49 = **\$2 450**.

Question 12

Inventory Card — Bloom vase (correct treatment) (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jul	Inv. 590	30	50	1500				30	50	1500
1 Jul	Chq 610 (customs duty)			90				30	53	1590

Correct closing inventory = 30 @ \$53 = **\$1 590** (\$90 ÷ 30 = \$3 added). Under the bookkeeper's treatment the duty is expensed and the card stays at 30 @ \$50 = **\$1 500**. Because all 30 vases are unsold, the \$90 that should have been

carried inside the Inventory asset has instead been expensed, so the **Inventory asset is understated by $90** and **profit is understated by $90** for the period.

Question 13

Inventory Card — Orbit speaker (Northbridge) (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Aug	Inv. 640	20	70	1400				20	70	1400
1 Aug	EFT 2510 (cartage inwards)			60				20	73	1460

Northbridge adds the cartage ($60 ÷ 20 = $3), so its closing inventory = 20 @ $73 = **$1 460**. Southbridge expenses the cartage, so its closing inventory = 20 @ $70 = **$1 400**. Because neither business has sold any speakers, Southbridge's $60 expense reduces its profit now, whereas Northbridge's $60 stays in the asset; **Northbridge reports the higher profit, by $60**, and also carries $60 more Inventory.

Question 14

Invoice cost of the batch = 25 @ $80 = $2 000. The card total after cartage = $2 125, so cartage inwards = $2 125 − $2 000 = **$125**. Per-unit product cost = $125 ÷ 25 = $5, so the adjusted per-unit cost = $80 + $5 = **$85**.

Question 15

Inventory Card — Ridge jacket (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Sep	Balance							8	50	400
4 Sep	Inv. 710	22	70	1540				8	50	400
								22	70	1540
4 Sep	EFT 2560 (cartage inwards)			44				8	50	400
								22	72	1584
17 Sep	Inv. S82				8	50	400	15	72	1080
					7	72	504			

Cartage $44 ÷ 22 = $2, so the adjusted cost is **$72**. Cost of sales = 8 @ $50 + 7 @ $72 = $400 + $504 = **$904**; closing inventory = 15 @ $72 = **$1 080**.

Question 16

A **product cost** is a cost incurred to get inventory into a condition or location ready for sale; it is added to the cost of the inventory and reported as an expense only when the goods are sold. A **period cost** is a cost that is not part of getting inventory ready for sale; it is expensed in the period incurred. **Cartage inwards** is a product cost because it is incurred to bring *purchased* inventory to the business so it can be sold — it is part of the sacrifice made to acquire the asset. **Delivery to customers** occurs *after* the inventory is already saleable and relates to a sale that has been made, so it is a period cost and is expensed. Treating the two the same ignores this difference. If cartage inwards were wrongly treated as a period cost, the cost would be expensed immediately instead of being carried in inventory: closing

Inventory would be understated in the Balance Sheet, and (while the goods remain unsold) **profit would be understated** in the Income Statement because an expense has been recognised too early. When those goods are later sold, Cost of Sales would be understated and profit overstated, distorting the comparison of results between the two periods.

Question 17

An **asset** is a **present economic resource** controlled by the business as a result of a **past event** — a right with the **potential to produce future economic benefits**. The vases meet this definition: Larkspur Imports **controls** them as a result of the **past event** of purchasing and importing them, and they carry the **potential to produce future economic benefits** when they are sold. The customs duty is part of the sacrifice made to obtain that resource — without paying it the imported vases could not be cleared and made ready for sale — so it forms part of the cost of the resource the business controls and should be recorded as part of the asset. Adding the duty to the cost of inventory also gives a **faithful representation** of what the inventory actually cost the business: the reported value is complete and free from bias, and the cost is matched against the revenue the vases will earn when they are sold. Expensing the duty in the period it is paid would recognise the cost before the related revenue is earned, understating both the Inventory asset and the profit of the current period.

Question 18

Inventory Card — Cove kayak (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Oct	Balance							3	300	900
3 Oct	Inv. 820	20	400	8000				3	300	900
								20	400	8000
3 Oct	EFT 2600 (freight inwards)			100				3	300	900
								20	405	8100
5 Oct	Chq 705 (customs duty)			200				3	300	900
								20	415	8300
21 Oct	Inv. S90				3	300	900	9	415	3735
					11	415	4565			

Freight \$100 ÷ 20 = \$5 (cost \$400 → \$405), then duty \$200 ÷ 20 = \$10 (cost \$405 → \$415). Cost of sales = 3 @ \$300 + 11 @ \$415 = \$900 + \$4 565 = **\$5 465**; closing inventory = 9 @ \$415 = **\$3 735**. The **\$250 advertising** is a **period cost** — it is not part of getting the kayaks ready for sale, so it is expensed in October and is not added to the inventory card.

Chapter 9 Valuing and managing inventory — 9B Reporting product and period costs

Theory

Every cost a trading business incurs is either a **product cost** or a **period cost**, and where each is reported in the **Income Statement** determines the two profit figures the report produces — **Gross Profit** and **Net Profit** — and therefore the picture a user forms of how the business is performing.

The classification test — a recap. A cost is a **product cost** only if it satisfies *two* tests: it must be incurred to get inventory into a **condition and location ready for sale**, *and* it must be capable of being **allocated to individual units on a logical basis**. A cost that passes both tests is added to the **inventory card**, raising the cost of the units it relates to, and is expensed through **Cost of Sales** only as those units are **sold**. The purchase price of the inventory itself, and costs such as **cartage inwards** on a single line of goods, **customs (import) duty** on a shipment of one product, **modification to a saleable condition** and **insurance of inventory in transit** are product costs whenever they can be traced to the units in this way.

A cost that was incurred to get inventory ready for sale but **cannot** be allocated to individual units on a logical basis is a **period cost**. Typical examples are a single freight charge covering a delivery of several *different* lines of inventory, customs duty on a mixed shipment, and insurance of inventory while it is stored. Such a cost is recorded in its **own account** and **expensed in full in the period it is incurred**, because there is no logical way to say how much of it belongs to any particular unit.

Costs that are not incurred to get inventory ready for sale at all are **also period costs**: **advertising**, **cartage outwards** (delivery *to* customers), storage of finished goods, sales staff wages, office wages, **rent**, **interest** and discount expense.

So "period cost" covers two different kinds of cost — those that relate to inventory and those that do not — and the Income Statement reports the two in **different places**.

Where each appears in the Income Statement. A classified Income Statement is built in two stages:

- **Above the Gross Profit line** sits **Cost of Goods Sold**. It begins with **Cost of Sales** — the cost of the units sold, taken from the perpetual inventory records, which already contains every product cost added to the card — and *adds* every **inventory-related period cost** recorded in a separate account, such as **Cartage Inwards** or **Customs Duty**. The business starts with **Net Sales** (Sales less Sales Returns) and deducts Cost of Goods Sold to arrive at **Gross Profit** — the profit made from **buying and selling inventory**, before any of the costs of *operating* the business are considered.
- **Below the Gross Profit line** sit the period costs that have nothing to do with getting inventory ready for sale, grouped as **Other Expenses**. After any other revenue is added, the Other Expenses are deducted from Gross Profit to arrive at **Net Profit** — the profit remaining after **every** expense of the period.

Cost of Goods Sold. Throughout this section, a **Cartage Inwards**, **Freight Inwards** or **Customs Duty** amount listed *separately* from Cost of Sales is one of these separately-recorded inventory-related period costs — the delivery or shipment covered several lines of inventory, so the cost could not be allocated to individual units. It is expensed in full now, but because it relates to inventory it is reported **inside Cost of Goods Sold**, not in Other Expenses:

$$\text{Cost of Goods Sold} = \text{Cost of Sales} + \text{cartage inwards (and any other separately-recorded inventory cost)}$$

Because Cost of Goods Sold is deducted from Net Sales, everything inside it directly reduces **Gross Profit**:

$$\text{Gross Profit} = \text{Net Sales} - \text{Cost of Goods Sold}$$

Other Expenses. The remaining period costs are reported after Gross Profit as **Other Expenses**. In a **fully classified** Income Statement they are further grouped into **selling expenses** (advertising, cartage outwards, sales wages), **administrative expenses** (office wages, rent, insurance) and **finance expenses** (interest, discount expense) so a user can see *where* the business spends; a single flat list of expenses is equally acceptable unless a question asks for the grouping. Their total is deducted — after adding any other revenue such as **Discount Revenue** — to give **Net Profit**:

$$\text{Net Profit} = \text{Gross Profit} + \text{other revenue} - \text{Total Other Expenses}$$

The key consequences. Two different errors are easily confused, and they do *not* have the same effect.

- **Reporting an inventory cost in the wrong part of the report.** If a separately-recorded cartage inwards or customs duty is shown among the Other Expenses instead of inside Cost of Goods Sold, the same amount is still deducted, just later in the report. **Gross Profit is overstated** (and the gross profit margin with it), but **Net Profit is unchanged**. The reverse — putting advertising inside Cost of Goods Sold — understates Gross Profit and again leaves Net Profit unchanged.
- **Classifying an allocatable cost as a period cost instead of a product cost.** This changes *how much* is expensed this period. As a **product cost**, only the share attaching to the units actually **sold** is expensed, and the rest stays inside the **Inventory** asset. As a **period cost**, the **whole** amount is expensed now. So while any of that inventory is still on hand, Cost of Goods Sold is **higher**, **Gross Profit and Net Profit are both lower**, and **Inventory is understated** in the Balance Sheet. The two treatments give the same profit only in the special case where every unit has been sold by balance day.

Worked model. Redgum Traders reports the following for the year. Sales were $240 000 and Sales Returns $6 000. Cost of Sales was $128 000, and $8 000 of Cartage Inwards was paid on deliveries covering several different lines of inventory, so it could not be allocated to individual units and is recorded in its own account. Discount Revenue of $3 000 was earned. The operating period costs were Advertising $9 000, Cartage outwards $5 000, Sales wages $22 000, Office wages $18 000, Rent expense $14 000, Interest expense $4 000 and Discount expense $2 000.

Income Statement for the year ended 30 June 2025	$	$
Revenue		
Sales	240 000	
less Sales Returns	6 000	
Net Sales		**234 000**
less **Cost of Goods Sold**		
Cost of Sales	128 000	
add Cartage Inwards	8 000	
Cost of Goods Sold		**136 000**
Gross Profit		**98 000**
add Discount Revenue		3 000
		101 000
less **Other Expenses**		
Advertising	9 000	
Cartage outwards	5 000	
Sales wages	22 000	
Office wages	18 000	
Rent expense	14 000	
Interest expense	4 000	
Discount expense	2 000	
Total Other Expenses		**74 000**
Net Profit		**27 000**

Both inventory costs — Cost of Sales $128 000 and Cartage Inwards $8 000 — sit **above** the Gross Profit line inside Cost of Goods Sold, so both have reduced Gross Profit to $98 000, even though the cartage is a period cost. The seven operating period costs sit **below** the Gross Profit line and have reduced Net Profit to $27 000 without touching Gross Profit.

Worked examples (scaffolded)

Example 1 — placing inventory and operating costs, then computing Gross Profit and Net Profit

Silverton Retail reports Sales of $154 000 and Sales Returns of $4 000 for the year. Cost of Sales was $82 000 and separately-recorded Cartage Inwards was $5 000. Its operating period costs were Advertising $6 000, Wages $24 000 and Rent expense $10 000. Determine where each cost is reported, then calculate Gross Profit and Net Profit.

Working	Comment
Net Sales = Sales $154 000 − Sales Returns $4 000 = **$150 000**.	The report begins with Net Sales, the revenue left after returns.
Inventory costs → Cost of Goods Sold. Cost of Sales $82 000 + Cartage Inwards $5 000 = **$87 000**.	The cartage was incurred to bring the inventory in, so it belongs above the Gross Profit line — it is *added* to Cost of Sales.
Gross Profit = Net Sales $150 000 − Cost of Goods Sold $87 000 = **$63 000**.	Gross Profit measures the result of buying and selling inventory only.
Operating costs → Other Expenses. Advertising $6 000 + Wages $24 000 + Rent expense $10 000 = **$40 000**.	None was incurred to get inventory ready for sale, so all three are deducted below Gross Profit.
Net Profit = Gross Profit $63 000 − Total Other Expenses $40 000 = **$23 000**.	Net Profit is what remains after every expense of the period.

Income Statement for the year ended 30 June 2025	$	$
Revenue		
Sales	154 000	
less Sales Returns	4 000	
Net Sales		**150 000**
less **Cost of Goods Sold**		
Cost of Sales	82 000	
add Cartage Inwards	5 000	
Cost of Goods Sold		**87 000**
Gross Profit		**63 000**
less **Other Expenses**		
Advertising	6 000	
Wages	24 000	
Rent expense	10 000	
Total Other Expenses		**40 000**
Net Profit		**23 000**

Example 2 — a classified Income Statement with grouped Other Expenses and other revenue

Maribyrnong Supplies reports for the year: Sales $200 000; Sales Returns $5 000; Cost of Sales $96 000; Cartage Inwards $4 000; Customs Duty $6 000; Discount Revenue $2 000. Its operating period costs were Advertising $7 000, Cartage outwards $4 000, Sales wages $20 000, Office wages $15 000, Rent expense $12 000, Insurance $3 000 and Interest expense $5 000. Prepare a classified Income Statement, showing Other Expenses grouped as selling, administrative and finance expenses.

Working	Comment
Net Sales = $200 000 − $5 000 = **$195 000**.	Sales less Sales Returns.
Cost of Goods Sold = Cost of Sales $96 000 + Cartage Inwards $4 000 + Customs Duty $6 000 = **$106 000**.	*Both* the cartage and the duty were incurred to bring the inventory in, so both are added above the Gross Profit line.
Gross Profit = $195 000 − $106 000 = **$89 000**; add	Other revenue is added after Gross Profit, before Other

Working	Comment
Discount Revenue $2 000 → **$91 000**.	Expenses.
Other Expenses = 7 000 + 4 000 + 20 000 + 15 000 + 12 000 + 3 000 + 5 000 = **$66 000**.	Every operating period cost, grouped selling / administrative / finance.
Net Profit = $91 000 − $66 000 = **$25 000**.	Gross Profit plus other revenue, less all operating period costs.

Income Statement for the year ended 30 June 2026	$	$
Revenue		
Sales	200 000	
less Sales Returns	5 000	
Net Sales		**195 000**
less **Cost of Goods Sold**		
Cost of Sales	96 000	
add Cartage Inwards	4 000	
add Customs Duty	6 000	
Cost of Goods Sold		**106 000**
Gross Profit		**89 000**
add Discount Revenue		2 000
		91 000
less **Other Expenses**		
Selling expenses		
Advertising	7 000	
Cartage outwards	4 000	
Sales wages	20 000	
Administrative expenses		
Office wages	15 000	
Rent expense	12 000	
Insurance	3 000	
Finance expenses		
Interest expense	5 000	
Total Other Expenses		**66 000**
Net Profit		**25 000**

Worked examples (unscaffolded)

Example 3 — preparing a classified Income Statement

Woodvale Trading reports for the year: Sales $176 000; Sales Returns $6 000; Cost of Sales $90 000; Freight Inwards $4 000; Advertising $8 000; Cartage outwards $3 000; Wages $26 000; Rent expense $9 000; Interest expense $4 000. Prepare a classified Income Statement.

Net Sales are $176 000 − $6 000 = $170 000. The freight inwards was incurred to bring the inventory in, so it is reported inside Cost of Goods Sold: $90 000 + $4 000 = $94 000, giving a Gross Profit of $170 000 − $94 000 = $76 000. The five operating period costs total $8 000 + $3 000 + $26 000 + $9 000 + $4 000 = $50 000, so Net Profit is $76 000 − $50 000 = $26 000.

Income Statement for the year ended 30 June 2025	$	$
Revenue		
Sales	176 000	
less Sales Returns	6 000	
Net Sales		**170 000**
less **Cost of Goods Sold**		
Cost of Sales	90 000	
add Freight Inwards	4 000	
Cost of Goods Sold		**94 000**
Gross Profit		**76 000**
less **Other Expenses**		
Advertising	8 000	
Cartage outwards	3 000	
Wages	26 000	
Rent expense	9 000	
Interest expense	4 000	
Total Other Expenses		**50 000**
Net Profit		**26 000**

∴ Woodvale Trading reports a Gross Profit of $76 000 and a Net Profit of $26 000.

Example 4 — the effect of treating a product cost as a period cost

Clearwater Merchants bought a single line of inventory costing $60 000 and paid $5 000 cartage inwards on its delivery; because the delivery covered only that one line, the cartage **can** be allocated to the units on a logical basis. By 30 June the business had sold **80%** of that inventory. Net Sales for the year were $140 000 and its operating period costs were Advertising $7 000, Wages $18 000 and Rent expense $5 000. Determine the effect on Gross Profit, on Net Profit and on the Inventory asset of treating the $5 000 cartage as a period cost rather than as a product cost.

Treated **correctly** as a **product cost**, the $5 000 is added to the inventory card, so the batch costs $60 000 + $5 000 = $65 000. The 80% sold carries 80% of that cost into Cost of Sales: 0.80 × $65 000 = $52 000, so Cost of Goods Sold is $52 000 and Gross Profit is $140 000 − $52 000 = $88 000. Other Expenses are $30 000, so Net Profit is $58 000, and the unsold fifth remains inside the Inventory asset at 0.20 × $65 000 = $13 000.

Treated as a **period cost**, the cartage never enters the card, so Cost of Sales is only 0.80 × $60 000 = $48 000 — but the whole $5 000 is expensed now and reported separately inside Cost of Goods Sold: $48 000 + $5 000 = $53 000. Gross Profit falls to $140 000 − $53 000 = $87 000 and Net Profit to $87 000 − $30 000 = $57 000, while closing inventory is only 0.20 × $60 000 = $12 000.

∴ because one-fifth of the inventory is still on hand, the period-cost treatment expenses 0.20 × $5 000 = $1 000 too early: Cost of Goods Sold is **$1 000 higher**, **Gross Profit and Net Profit are each $1 000 lower**, and the **Inventory asset is understated by $1 000**. Only if every unit had been sold would the two treatments produce the same profit.

Practice questions — scaffolded

Question 1

Stoneleigh Wholesale lists the following costs for the year: Cost of Sales; cartage inwards of $1 200 paid on a delivery of a **single** line of inventory; customs duty of $4 000 paid on an imported shipment containing **five different** lines of inventory; Advertising; Cartage outwards; Sales wages; Rent expense; Interest expense.

a. Classify each cost as a **product cost** or a **period cost**.

b. State the part of the Income Statement in which each cost is reported — **Cost of Goods Sold** or **Other Expenses**.

c. Explain in one sentence why the customs duty still reduces Gross Profit even though it is a period cost.

Question 2

Fairhaven Imports reports Net Sales of $120 000 and Cost of Sales of $64 000 for the year. It also paid Cartage Inwards of $3 000 and Customs Duty of $5 000, each recorded in its own account because the delivery and the shipment each covered several lines of inventory.

a. Calculate the Cost of Goods Sold.

b. Calculate the Gross Profit.

c. Explain in one sentence why the cartage inwards is included in Cost of Goods Sold rather than in Other Expenses.

Question 3

Blackwood Trading reports a Gross Profit of $70 000 for the year. Its operating period costs were Advertising $6 000, Cartage outwards $4 000, Wages $28 000, Rent expense $8 000 and Interest expense $3 000.

a. Classify the five listed costs, and state the part of the Income Statement in which they are reported.

b. Calculate the Total Other Expenses.

c. Calculate the Net Profit.

Question 4

Glenferrie Stores reports for the year: Sales $160 000; Sales Returns $4 000; Cost of Sales $84 000; Cartage Inwards $6 000; Advertising $5 000; Cartage outwards $3 000; Wages $22 000; Rent expense $10 000; Interest expense $2 000.

a. Prepare a classified Income Statement for the year ended 30 June 2025.

b. State the Gross Profit.

c. State the Net Profit.

Question 5

Tanunda Cellars had Net Sales of $100 000, Cost of Sales of $55 000 and separately-recorded Cartage Inwards of $3 000, and operating period costs of Advertising $4 000, Wages $15 000 and Rent expense $6 000. Its bookkeeper mistakenly reported the $4 000 Advertising inside Cost of Goods Sold.

a. State the correct Gross Profit.

b. State the Gross Profit that results from the error, and state the size and direction of the effect on Gross Profit.

c. State the effect of the error on Net Profit.

Question 6

Mornington Outfitters reports Net Sales of $90 000, Cost of Sales of $48 000 and separately-recorded Cartage Inwards of $2 000, and operating period costs of Advertising $5 000, Wages $14 000 and Rent expense $6 000.

a. Explain why the Cartage Inwards reduces Gross Profit but the Advertising does not, even though both are period costs.

b. Calculate the Gross Profit.

c. Calculate the Net Profit.

Practice questions — unscaffolded

Question 7

Ballarat Bikes reports for the year: Sales $220 000; Sales Returns $8 000; Cost of Sales $116 000; Cartage Inwards $7 000; Advertising $9 000; Cartage outwards $5 000; Wages $30 000; Rent expense $12 000; Interest expense $5 000. Prepare a classified Income Statement for the year ended 30 June 2026 and state the Gross Profit and Net Profit.

Question 8

Echuca Hardware reports for the year: Sales $260 000; Sales Returns $10 000; Cost of Sales $132 000; Cartage Inwards $5 000; Customs Duty $8 000; Advertising $11 000; Cartage outwards $6 000; Sales wages $24 000; Office wages $20 000; Rent expense $15 000; Interest expense $7 000. Prepare a classified Income Statement for the year ended 30 June 2025, grouping Other Expenses as selling, administrative and finance expenses, and state the Gross Profit and Net Profit.

Question 9

Wodonga Timber reports for the year: Sales $180 000; Sales Returns $5 000; Cost of Sales $92 000; Freight Inwards $6 000; Discount Revenue $3 000; Advertising $7 000; Wages $25 000; Rent expense $10 000; Interest expense $4 000. Prepare a classified Income Statement for the year ended 30 June 2026 and state the Net Profit.

Question 10

Torbay Electrical had Net Sales of $130 000, Cost of Sales of $70 000 and separately-recorded Cartage Inwards of $6 000, and operating period costs of Advertising $8 000, Cartage outwards $4 000, Wages $16 000 and Rent expense $6 000.

a. Calculate the correct Gross Profit and Net Profit.
b. The Cartage Inwards is mistakenly reported among the Other Expenses instead of inside Cost of Goods Sold. Calculate the Gross Profit and Net Profit that would then be reported, and explain the effect of the error on each.

Question 11

Hillcrest Trading and Nortonville Supplies each report Net Sales of $120 000 and operating period costs of $30 000 for the year. Each bought a single line of inventory costing $80 000 and paid $8 000 cartage inwards on its delivery, and each had sold **three-quarters** of that inventory by the end of the year. Because each delivery covered only the one line of goods, the $8 000 can be allocated to the units on a logical basis. Hillcrest treats the $8 000 as a **product cost** and adds it to its inventory card; Nortonville treats the identical $8 000 as a **period cost** and reports it separately inside Cost of Goods Sold. Calculate each business's Gross Profit and Net Profit, state which business reports the higher of each, and explain why the two differ.

Question 12

Kanmantoo Traders reports Net Sales of $145 000 and a Gross Profit of $61 000 for the year. Its only inventory cost reported separately from Cost of Sales was Cartage Inwards of $4 000. Using this information, calculate the Cost of Goods Sold and the Cost of Sales.

Question 13

Sunraysia Fruit reports a Gross Profit of $68 000 and a Net Profit of $23 000 for the year. Its Other Expenses were Advertising $8 000, Cartage outwards $5 000, Wages $24 000, Interest expense $3 000 and one further expense — Rent — whose amount has been lost. Calculate the Total Other Expenses and the missing Rent expense.

Question 14

Brimbank Trading paid $9 000 cartage inwards on a delivery of a single line of inventory, so the cost can be allocated to the units on a logical basis. At 30 June **one-third** of that inventory is still on hand. The owner is deciding whether to classify the $9 000 as a product cost or a period cost, and a colleague argues that "because Net Profit is the same either way, the classification does not matter." Discuss whether the colleague is correct, with reference to Gross Profit, Net Profit, the Inventory asset and at least one user of the Income Statement.

Question 15

Whitfield Retail's records for the year include: Sales $210 000; Sales Returns $6 000; Cost of Sales $110 000; Cartage Inwards $5 000; Advertising $8 000; Cartage outwards $4 000; Wages $28 000; Rent expense $11 000; Interest expense $4 000; Drawings $15 000; Inventory $40 000. Prepare a classified Income Statement for the year ended 30 June 2026, and state which two of the listed items are **not** reported in the Income Statement and why.

Question 16

Corryong Imports had Net Sales of $160 000, Cost of Sales of $84 000 and separately-recorded Customs Duty of $7 000, and operating period costs of Advertising $9 000, Wages $22 000, Rent expense $6 000 and Interest expense $3 000.

a. Calculate the correct Gross Profit and Net Profit.

b. The $7 000 Customs Duty is accidentally left out of the Income Statement altogether. Calculate the Gross Profit and Net Profit that would then be reported, and state the effect on each. Explain why the effect differs from that of merely reporting the customs duty among the Other Expenses.

Question 17

Explain, with reference to the structure of the Income Statement and to a relevant qualitative characteristic, why advertising reduces Net Profit but leaves Gross Profit unchanged, whereas cartage inwards reduces both — whether it is classified as a product cost or as a period cost.

Question 18

Yandoit Stores' records for the year ended 30 June 2026 include: Sales $300 000; Sales Returns $12 000; Cost of Sales $150 000; Cartage Inwards $6 000; Customs Duty $9 000; Discount Revenue $4 000; Advertising $12 000; Cartage outwards $7 000; Sales wages $26 000; Office wages $22 000; Rent expense $16 000; Insurance $4 000; Interest expense $8 000; Discount expense $3 000; Drawings $20 000; Inventory $55 000. Prepare a fully classified Income Statement, grouping Other Expenses as selling, administrative and finance expenses, and state the Gross Profit and Net Profit.

Answers

1. a/b. Product cost: the cartage inwards $1 200 (added to the inventory card, so reported inside Cost of Sales). Period costs reported in **Cost of Goods Sold**: the customs duty $4 000. Period costs reported in **Other Expenses**: Advertising, Cartage outwards, Sales wages, Rent expense, Interest expense. (Cost of Sales is itself the product costs of the units sold, reported in Cost of Goods Sold.) c. See solutions.
2. a. Cost of Goods Sold $72 000 b. Gross Profit $48 000 c. See solutions.
3. b. Total Other Expenses $49 000 c. Net Profit $21 000
4. b. Gross Profit $66 000 c. Net Profit $24 000
5. a. $42 000 b. $38 000 — understated by $4 000 c. Net Profit unchanged at $17 000
6. b. Gross Profit $40 000 c. Net Profit $15 000
7. Gross Profit $89 000; Net Profit $28 000
8. Gross Profit $105 000; Net Profit $22 000
9. Gross Profit $77 000; Net Profit $34 000
10. a. Gross Profit $54 000; Net Profit $20 000 b. Gross Profit $60 000 (overstated $6 000); Net Profit $20 000 (unchanged)
11. Hillcrest Gross Profit $54 000, Net Profit $24 000; Nortonville Gross Profit $52 000, Net Profit $22 000. Hillcrest reports the higher Gross Profit *and* the higher Net Profit, each by $2 000.
12. Cost of Goods Sold $84 000; Cost of Sales $80 000
13. Total Other Expenses $45 000; missing Rent expense $5 000
14. See solutions.
15. Gross Profit $89 000; Net Profit $34 000. Drawings and Inventory are not reported (see solutions).
16. a. Gross Profit $69 000; Net Profit $29 000 b. Gross Profit $76 000; Net Profit $36 000 — both overstated by $7 000 (see solutions).
17. See solutions.
18. Gross Profit $123 000; Net Profit $29 000

Fully-worked solutions

Question 1

a and b.

Cost	Classification	Reported in
Cost of Sales	The product costs of the units sold	Cost of Goods Sold
Cartage inwards $1 200 (one line of inventory)	**Product cost** — incurred to get the inventory ready for sale *and* able to be allocated to the units on a logical basis	Added to the inventory card, so reported inside **Cost of Sales** within Cost of Goods Sold
Customs duty $4 000 (five lines of inventory)	**Period cost** — incurred to get the inventory ready for sale, but it cannot be allocated to individual units on a logical basis	Expensed in full and reported **separately within Cost of Goods Sold**
Advertising	Period cost	Other Expenses
Cartage outwards	Period cost	Other Expenses
Sales wages	Period cost	Other Expenses

Cost	Classification	Reported in
Rent expense	Period cost	Other Expenses
Interest expense	Period cost	Other Expenses

c. Being a period cost changes *when* the customs duty is expensed — in full, in the period incurred, rather than as the units sell — but not *where* it is reported: because the duty was still incurred to get the inventory into a condition and location ready for sale, it is reported inside **Cost of Goods Sold**, above the Gross Profit line, and so reduces Gross Profit.

Question 2

a. Cost of Goods Sold = Cost of Sales $64 000 + Cartage Inwards $3 000 + Customs Duty $5 000 = **$72 000**.

b. Gross Profit = Net Sales $120 000 − Cost of Goods Sold $72 000 = **$48 000**.

c. The cartage inwards was incurred to get the inventory into a **condition and location ready for sale**, so it forms part of the cost of the goods sold and is reported above the Gross Profit line — even though it could not be allocated to individual units and is therefore a period cost expensed in full this year. Other Expenses is reserved for the costs of *operating* the business, which have nothing to do with getting inventory ready for sale.

Question 3

a. Advertising, Cartage outwards, Wages, Rent expense and Interest expense are all **period costs**. None was incurred to get inventory into a condition or location ready for sale, so all five are reported in **Other Expenses**, below the Gross Profit line.

b. Total Other Expenses = $6 000 + $4 000 + $28 000 + $8 000 + $3 000 = **$49 000**.

c. Net Profit = Gross Profit $70 000 − Total Other Expenses $49 000 = **$21 000**.

Question 4

Income Statement for the year ended 30 June 2025	$	$
Revenue		
Sales	160 000	
less Sales Returns	4 000	
Net Sales		**156 000**
less **Cost of Goods Sold**		
Cost of Sales	84 000	
add Cartage Inwards	6 000	
Cost of Goods Sold		**90 000**
Gross Profit		**66 000**
less **Other Expenses**		
Advertising	5 000	
Cartage outwards	3 000	
Wages	22 000	
Rent expense	10 000	
Interest expense	2 000	
Total Other Expenses		**42 000**
Net Profit		**24 000**

b. Gross Profit = **$66 000**. c. Net Profit = **$24 000**.

Question 5

Correct treatment: Cost of Goods Sold = $55 000 + $3 000 = $58 000, so Gross Profit = $100 000 − $58 000 = $42 000; Other Expenses = $4 000 + $15 000 + $6 000 = $25 000, so Net Profit = $42 000 − $25 000 = $17 000.

a. The correct Gross Profit is **$42 000**.

b. If the $4 000 Advertising is wrongly added to Cost of Goods Sold, Cost of Goods Sold becomes $62 000 and Gross Profit becomes $100 000 − $62 000 = **$38 000** — Gross Profit is **understated by $4 000**.

c. Net Profit is **unchanged at $17 000**: the advertising is a period cost expensed in full this year under either presentation, so the same $4 000 is deducted before Net Profit whether it sits in Cost of Goods Sold or in Other Expenses (Other Expenses simply fall by $4 000 to $21 000, exactly offsetting the lower Gross Profit). The error misplaces the expense in the report; it does not change the amount expensed.

Question 6

a. Both are period costs, but only one relates to inventory. The **Cartage Inwards** was incurred to bring the purchased inventory to the business — a cost of getting it into a location ready for sale — so it is reported inside **Cost of Goods Sold**, which is deducted from Net Sales to calculate Gross Profit; it therefore reduces Gross Profit (and, in turn, Net Profit). The **Advertising** was not incurred to get inventory ready for sale at all; it is a cost of operating the business, reported as an Other Expense *below* the Gross Profit line, so it is deducted only in arriving at Net Profit and leaves Gross Profit unchanged.

b. Cost of Goods Sold = $48 000 + $2 000 = $50 000; Gross Profit = Net Sales $90 000 − $50 000 = **$40 000**.

c. Total Other Expenses = $5 000 + $14 000 + $6 000 = $25 000; Net Profit = $40 000 − $25 000 = **$15 000**.

Question 7

Income Statement for the year ended 30 June 2026	$	$
Revenue		
Sales	220 000	
less Sales Returns	8 000	
Net Sales		**212 000**
less **Cost of Goods Sold**		
Cost of Sales	116 000	
add Cartage Inwards	7 000	
Cost of Goods Sold		**123 000**
Gross Profit		**89 000**
less **Other Expenses**		
Advertising	9 000	
Cartage outwards	5 000	
Wages	30 000	
Rent expense	12 000	
Interest expense	5 000	
Total Other Expenses		**61 000**
Net Profit		**28 000**

Gross Profit = **$89 000**; Net Profit = **$28 000**.

Question 8

Income Statement for the year ended 30 June 2025	$	$
Revenue		

Income Statement for the year ended 30 June 2025	$	$
Sales	260 000	
less Sales Returns	10 000	
Net Sales		**250 000**
less **Cost of Goods Sold**		
Cost of Sales	132 000	
add Cartage Inwards	5 000	
add Customs Duty	8 000	
Cost of Goods Sold		**145 000**
Gross Profit		**105 000**
less **Other Expenses**		
Selling expenses		
Advertising	11 000	
Cartage outwards	6 000	
Sales wages	24 000	
Administrative expenses		
Office wages	20 000	
Rent expense	15 000	
Finance expenses		
Interest expense	7 000	
Total Other Expenses		**83 000**
Net Profit		**22 000**

Gross Profit = **$105 000**; Net Profit = **$22 000**.

Question 9

Income Statement for the year ended 30 June 2026	$	$
Revenue		
Sales	180 000	
less Sales Returns	5 000	
Net Sales		**175 000**
less **Cost of Goods Sold**		
Cost of Sales	92 000	
add Freight Inwards	6 000	
Cost of Goods Sold		**98 000**
Gross Profit		**77 000**
add Discount Revenue		3 000
		80 000
less **Other Expenses**		
Advertising	7 000	
Wages	25 000	
Rent expense	10 000	
Interest expense	4 000	

Income Statement for the year ended 30 June 2026	$	$
Total Other Expenses		**46 000**
Net Profit		**34 000**

Net Profit = **$34 000**.

Question 10

a. Correct treatment: Cost of Goods Sold = $70 000 + $6 000 = $76 000, so Gross Profit = $130 000 − $76 000 = **$54 000**. Other Expenses = $8 000 + $4 000 + $16 000 + $6 000 = $34 000, so Net Profit = $54 000 − $34 000 = **$20 000**.

b. If the Cartage Inwards is shown among the Other Expenses, Cost of Goods Sold falls to $70 000, so Gross Profit becomes $130 000 − $70 000 = **$60 000** (overstated by $6 000); Other Expenses rise to $40 000, so Net Profit becomes $60 000 − $40 000 = **$20 000** (unchanged). The error **overstates Gross Profit by $6 000** — and overstates the gross profit margin with it — but has **no effect on Net Profit**, because the cartage is a period cost expensed in full this year under either presentation: the same $6 000 is deducted before Net Profit, and only the point at which it is deducted (above or below the Gross Profit line) has changed. Note that this is *not* the same as classifying an allocatable cartage cost as a period cost instead of a product cost: that error would change the *amount* expensed this period and so would reduce both profit figures.

Question 11

Hillcrest Trading (cartage a **product cost**): the $8 000 is added to the inventory card, so the batch costs $80 000 + $8 000 = $88 000. Three-quarters of it was sold, so Cost of Sales = ¾ × $88 000 = $66 000, which is also Cost of Goods Sold. Gross Profit = $120 000 − $66 000 = **$54 000**; Other Expenses = $30 000; Net Profit = $54 000 − $30 000 = **$24 000**. The unsold quarter is carried in Inventory at ¼ × $88 000 = $22 000.

Nortonville Supplies (cartage a **period cost**): the $8 000 never enters the card, so Cost of Sales = ¾ × $80 000 = $60 000, and the whole $8 000 is expensed now inside Cost of Goods Sold: $60 000 + $8 000 = $68 000. Gross Profit = $120 000 − $68 000 = **$52 000**; Other Expenses = $30 000; Net Profit = $52 000 − $30 000 = **$22 000**. Its Inventory is only ¼ × $80 000 = $20 000.

Hillcrest reports the higher Gross Profit *and* the higher Net Profit, each by **$2 000**. The difference is exactly the quarter of the cartage that relates to inventory still on hand: ¼ × $8 000 = $2 000. Hillcrest carries that $2 000 inside its Inventory asset and will expense it next year when those units sell; Nortonville has expensed it already, so its Cost of Goods Sold is $2 000 higher this year and its Inventory $2 000 lower. Had both businesses sold *all* of the inventory, the two treatments would have produced identical Gross Profit and Net Profit.

Question 12

Cost of Goods Sold = Net Sales − Gross Profit = $145 000 − $61 000 = **$84 000**. Cost of Sales = Cost of Goods Sold − Cartage Inwards = $84 000 − $4 000 = **$80 000**.

Question 13

Total Other Expenses = Gross Profit − Net Profit = $68 000 − $23 000 = **$45 000**. The four known expenses total $8 000 + $5 000 + $24 000 + $3 000 = $40 000, so the missing **Rent expense** = $45 000 − $40 000 = **$5 000**.

Question 14

The colleague is **incorrect**. The classification decides *how much* of the $9 000 is expensed this period, not merely where in the report it appears.

Because the cartage relates to a single line of inventory, it **can** be allocated to the units on a logical basis, so it qualifies as a **product cost**. Treated that way it is added to the **inventory card** and carried inside the **Inventory** asset, and is expensed through **Cost of Sales** only as the units are sold. With one-third of the inventory still on hand at 30 June, only two-thirds of the cartage — $6 000 — is expensed this year; the remaining **$3 000** stays in the Inventory asset and will be expensed next year when those goods sell.

Treated as a **period cost**, the whole $9 000 is expensed in the year it is incurred and reported separately inside Cost of Goods Sold. Cost of Goods Sold is therefore **$3 000 higher**, so **Gross Profit is $3 000 lower and Net Profit is $3 000 lower**, and the **Inventory** reported in the Balance Sheet is **understated by $3 000**. Net Profit would be the same under the two treatments only if every unit had been sold by balance day, which is not the case here — so the colleague's premise fails.

The classification also matters to the users of the report. Recording an allocatable cost as a product cost gives a **faithful representation** of what the inventory actually cost and matches that cost against the revenue it helps to earn. The **owner** uses Gross Profit and the **gross profit margin** to set selling prices and mark-ups, and would be misled by an understated Gross Profit; a **lender** assessing a loan application relies on both profit figures and on the reported value of Inventory offered as security. Expensing the cost too early also understates profit this year and overstates it next year, damaging the **comparability** of the two periods.

Question 15

Income Statement for the year ended 30 June 2026	$	$
Revenue		
Sales	210 000	
less Sales Returns	6 000	
Net Sales		**204 000**
less **Cost of Goods Sold**		
Cost of Sales	110 000	
add Cartage Inwards	5 000	
Cost of Goods Sold		**115 000**
Gross Profit		**89 000**
less **Other Expenses**		
Advertising	8 000	
Cartage outwards	4 000	
Wages	28 000	
Rent expense	11 000	
Interest expense	4 000	
Total Other Expenses		**55 000**
Net Profit		**34 000**

Gross Profit = **$89 000**; Net Profit = **$34 000**. **Drawings $15 000** and **Inventory $40 000** are **not** reported in the Income Statement: Drawings is a reduction of owner's equity (a distribution to the owner, not an expense), and Inventory is a current asset — both belong in the Balance Sheet.

Question 16

a. Correct treatment: Cost of Goods Sold = $84 000 + $7 000 = $91 000, so Gross Profit = $160 000 − $91 000 = **$69 000**. Other Expenses = $9 000 + $22 000 + $6 000 + $3 000 = $40 000, so Net Profit = $69 000 − $40 000 = **$29 000**.

b. If the $7 000 Customs Duty is omitted altogether, Cost of Goods Sold falls to $84 000, so Gross Profit becomes $160 000 − $84 000 = **$76 000** (overstated by $7 000); Other Expenses are unchanged at $40 000, so Net Profit becomes $76 000 − $40 000 = **$36 000** (overstated by $7 000). **Both Gross Profit and Net Profit are overstated by $7 000.** This differs from merely reporting the customs duty among the Other Expenses: that error still deducts the $7 000 (below the Gross Profit line rather than above it), so only Gross Profit is affected and Net Profit is unchanged; **omission removes the $7 000 deduction entirely**, so both profit figures are overstated.

Question 17

The Income Statement is built in two stages around the Gross Profit line. Everything relating to the **inventory** is deducted first: **Cost of Sales** — the cost of the units sold, which already carries every product cost added to the inventory card — plus any inventory cost recorded in a separate account, the two together making **Cost of Goods Sold**. Net Sales less Cost of Goods Sold gives **Gross Profit**, the profit from buying and selling inventory. The costs of *operating* the business — the **Other Expenses** — are then deducted to give **Net Profit**.

Advertising was not incurred to get inventory into a condition or location ready for sale; it is a cost of running the business for the period. It is therefore reported in Other Expenses, below the Gross Profit line, so it reduces only Net Profit and leaves Gross Profit untouched.

Cartage inwards *was* incurred to bring purchased inventory to the business, so it belongs above the Gross Profit line whichever way it is classified. If it can be allocated to individual units on a logical basis it is a **product cost**, added to the inventory card and expensed through Cost of Sales as those units sell; if it cannot, it is a **period cost**, expensed in full and reported separately within Cost of Goods Sold. Either way it forms part of Cost of Goods Sold, so it reduces Gross Profit and — because Net Profit is calculated from Gross Profit — Net Profit as well. What the classification changes is the *amount* deducted this period, not the part of the report it appears in.

Reporting each cost in its correct part gives a **faithful representation** of both the cost of the goods sold and the cost of operating the business, so users can rely on Gross Profit and Net Profit each measuring what it is meant to measure.

Question 18

Income Statement for the year ended 30 June 2026	$	$
Revenue		
Sales	300 000	
less Sales Returns	12 000	
Net Sales		**288 000**
less **Cost of Goods Sold**		
Cost of Sales	150 000	
add Cartage Inwards	6 000	
add Customs Duty	9 000	
Cost of Goods Sold		**165 000**
Gross Profit		**123 000**
add Discount Revenue		4 000
		127 000
less **Other Expenses**		
Selling expenses		
Advertising	12 000	
Cartage outwards	7 000	
Sales wages	26 000	
Administrative expenses		
Office wages	22 000	
Rent expense	16 000	
Insurance	4 000	
Finance expenses		
Interest expense	8 000	
Discount expense	3 000	
Total Other Expenses		**98 000**
Net Profit		**29 000**

Gross Profit = **$123 000**; Net Profit = **$29 000**. (Drawings $20 000 and Inventory $55 000 are a distribution to the owner and a current asset respectively, so neither is reported in the Income Statement.)

Chapter 9 Valuing and managing inventory — 9C Lower of cost and NRV; inventory write-down

Theory

Inventory is normally recorded in the inventory card at its **cost price** — the price the business paid to bring each unit into a condition and location ready for sale. Cost is a **verifiable** figure, supported by the supplier's invoice. But cost is only a faithful measure of the inventory's worth for as long as the business can still recover that cost when the inventory is sold. If a product becomes shop-soiled, obsolete, superseded by a newer model, or simply overpriced for its market, the amount the business can realistically expect to recover may fall **below** what the inventory cost. Continuing to report it at cost would **overstate** the Inventory asset and overstate profit.

To prevent this, inventory is reported at the **lower of cost and net realisable value** (the **lower-of-cost-and-NRV rule**).

Net realisable value (NRV) is the net amount a business expects to receive from selling a unit of inventory:

NRV = estimated selling price − estimated costs to sell

The **costs to sell** are any costs the business must still incur to make and complete the sale — for example sales commission, delivery to the customer, or minor repairs and repackaging. NRV is therefore an *estimate about the future*, whereas cost is a *record of the past*.

Applying the rule. For each unit (more precisely, for each cost price on hand) the business compares **cost** with **NRV** and reports the unit at whichever is **lower**:

- If **NRV ≥ cost**, the inventory is still worth at least what it cost, so it stays at **cost**. Inventory is **never written up** above cost — a possible future gain is not recognised until the inventory is actually sold.
- If **NRV < cost**, the inventory has lost value, so it is **written down** from cost to NRV. The fall in value is recognised **now**, in the period the value fell, not deferred to the period the inventory is eventually sold.

Calculating the write-down. The **inventory write-down** is the fall in value, applied to every unit held at that cost price:

Write-down = (cost − NRV) × units held

Where units on hand were bought at more than one cost price, the rule is applied to **each cost price separately**: a cost price *above* NRV is written down to NRV; a cost price *already at or below* NRV is left unchanged (never written up).

Recording the write-down. The write-down is an **expense** — a decrease in the Inventory asset that is not the result of a sale, drawing or advertising use. It is recorded in the General Journal:

Date 2025	Details	Debit $	Credit $
30 Jun	Inventory Write-Down	60	
	Inventory		60
	Write-down of 15 Aspen bookshelves from cost to net realisable value (Memo 30)		

Inventory Write-Down (the expense) is debited and **Inventory** (the asset) is credited with the fall in value. There is **no GST**: no sale, purchase or return has occurred — only a fall in the recorded value of inventory already owned.

Showing the write-down in the inventory card. Because the Inventory ledger account falls, its subsidiary record — the inventory card — must fall by the same amount, so the write-down is entered in the **OUT columns** of the card: the OUT *quantity* is the number of units being written down, the OUT *cost* is the **fall in value per unit** (cost − NRV), and the OUT *total* is the write-down itself. No units actually leave the business — the entry takes out **value**, not goods — so the BALANCE column carries the **same quantity** as before, now at the **lower NRV cost price**, and the balance

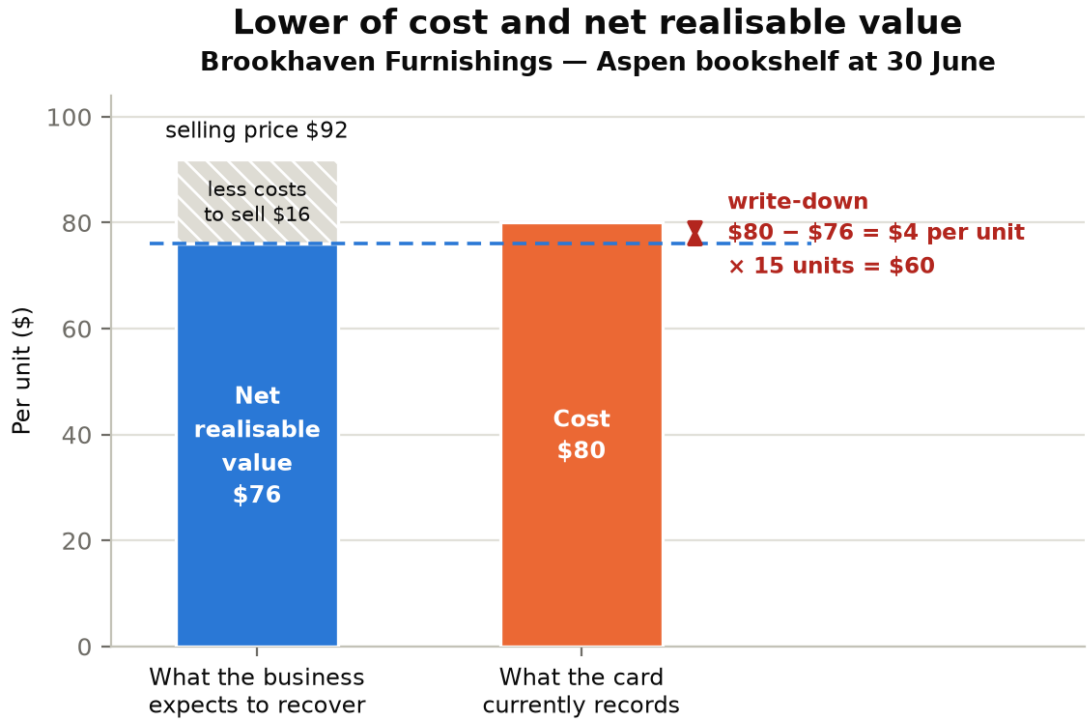
cost and balance total both fall. Where **two cost prices** are written down, each falls by a different amount per unit, so each is entered on its **own OUT line**.

Worked model. Brookhaven Furnishings sells the *Aspen* bookshelf and uses FIFO. At 1 June it held 15 bookshelves recorded at a cost of $80 each ($1 200). A newer model has since been released, so at balance day, 30 June, the *Aspen* is expected to sell for only $92, and delivery and sales commission to sell each one are estimated at $16. NRV = $92 − $16 = **$76**. Because NRV ($76) is **below** cost ($80), the bookshelves are written down. Write-down = ($80 − $76) × 15 = $4 × 15 = **$60**, and the 15 bookshelves are now carried at 15 @ $76 = **$1 140**.

Inventory Card — Aspen bookshelf (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jun	Balance							15	80	1200
30 Jun	Memo 30 (write-down)				15	4	60	15	76	1140

Reporting. The **Inventory Write-Down** of $60 is reported as an **expense** in the Income Statement, but **not** among the Other Expenses (the period costs of running the business): like an inventory loss, it is deducted from **Gross Profit** to give **Adjusted Gross Profit**, and so reduces net profit for the period. The Inventory is reported in the Balance Sheet as a current asset at its written-down value of $1 140. Reporting inventory at the lower of cost and NRV upholds **faithful representation** — the asset is not overstated — so the reports are complete, neutral and free from material error, and the information about the inventory's recoverable amount is **relevant** to users.



Brookhaven Furnishings' Aspen bookshelf — estimated selling price, net realisable value and recorded cost, per unit

The comparison the rule makes is between the two right-hand quantities, not between the selling price and cost. At $92 the bookshelf still sells for more than it cost — but $16 of that never reaches the business, so the $76 it can actually recover sits **below** the $80 the card records. The $4 gap, across 15 units, is the $60 write-down.

Worked examples (scaffolded)

Example 1 — deciding, calculating, recording and reporting a write-down

Cedar Lane Trading uses FIFO for the *Nimbus* office chair. On 1 July the card showed 24 chairs at $55 ($1 320). At balance day, 31 July, a redesigned range means the *Nimbus* is now expected to sell for $70 each, with delivery and commission to sell of $23 per chair (Memo 18).

Working	Comment
NRV = $70 − $23 = $47.	NRV = estimated selling price − estimated costs to sell. It is an estimate of what the business will actually recover.
Compare: NRV $47 < cost $55 → a write-down is needed.	Inventory is reported at the *lower* of cost and NRV. Because NRV is below cost, the chairs must be written down.
Write-down = ($55 − $47) × 24 = $8 × 24 = $192.	The fall in value per unit ($8) applies to every one of the 24 chairs held.
New balance = 24 @ $47 = $1 128.	The quantity is unchanged; each chair is now carried at its NRV of $47.
Journal: Inventory Write-Down Dr $192; Inventory Cr $192.	An expense (Dr) and a fall in the asset (Cr) — no GST, as no sale has occurred.
Card: OUT 24 units @ the $8 fall = $192; balance 24 @ $47.	The OUT columns show the *value* removed — quantity written down, fall per unit, total write-down — while the balance quantity stays at 24.
Report: deduct the $192 from **Gross Profit** to give **Adjusted Gross Profit**.	An inventory write-down is *not* an Other Expense; it adjusts Gross Profit, in the same position as an inventory loss.

Inventory Card — Nimbus office chair (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jul	Balance							24	55	1320
31 Jul	Memo 18 (write-down)				24	8	192	24	47	1128

Date 2025	Details	Debit $	Credit $
31 Jul	Inventory Write-Down	192	
	Inventory		192
	Write-down of 24 Nimbus office chairs from cost to net realisable value (Memo 18)		

The write-down is then reported in the two reports:

Income Statement (extract) for the month ended 31 July 2025

	$
Gross Profit	XXX
less Inventory Write-Down	192
Adjusted Gross Profit	**XXX**

Balance Sheet (extract) as at 31 July 2025

Current Assets	$
Inventory	1 128

Example 2 — deciding that NO write-down is required

Harbourpoint Supplies uses FIFO for the *Vortex* fan. On 1 August the card showed 30 fans at $18 ($540). At balance day, 31 August, the *Vortex* is expected to sell for $40 each, with costs to sell of $5 per fan.

Working	Comment
NRV = $40 − $5 = $35.	Estimated selling price less the costs still needed to sell each fan.
Compare: NRV $35 vs cost $18 → NRV is *higher* than cost.	The rule reports inventory at the *lower* of the two figures.
Lower of cost and NRV = **$18 (cost)**. No write-down.	Because the fans can still be sold for well above cost, no value has been lost.
Inventory stays at 30 @ $18 = $540. No journal entry.	Inventory is **never written up** above cost; a possible gain is recognised only when the fans are actually sold.

Inventory Card — Vortex fan (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Aug	Balance							30	18	540

No write-down line is entered on the card and no General Journal entry is required; Inventory is reported in the Balance Sheet at its cost of $540.

Worked examples (unscaffolded)

Example 3 — a write-down after a purchase and a sale

Ridgeway Cycles uses FIFO for the *Contour* saddle. On 1 September the card showed 8 saddles at $40 ($320). On 6 September it purchased 20 saddles at $46 (Inv. 415) and on 15 September it sold 8 saddles (Inv. S60). At balance day, 30 September, the *Contour* is expected to sell for $60 with costs to sell of $19 per saddle (Memo 20). Complete the inventory card and record the write-down.

The sale of 8 saddles is assigned the 8 oldest units at $40, leaving 20 saddles at $46 ($920) on hand. NRV = $60 − $19 = $41, which is below the $46 cost, so the saddles are written down by ($46 − $41) × 20 = $5 × 20 = $100, to 20 @ $41 = $820.

Inventory Card — Contour saddle (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Sep	Balance							8	40	320
6 Sep	Inv. 415	20	46	920				8	40	320
								20	46	920
15 Sep	Inv. S60				8	40	320	20	46	920
30 Sep	Memo 20 (write-down)				20	5	100	20	41	820

Date 2025	Details	Debit $	Credit $

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
30 Sep		Inventory Write-Down					100			
		Inventory								100
		Write-down of 20 Contour saddles from cost to net realisable value (Memo 20)								

∴ closing inventory is 20 *Contour* saddles at $41 = $820, and an Inventory Write-Down of $100 is reported as an expense.

Example 4 — writing down two cost prices to one NRV

Meridian Audio uses FIFO for the *Echo* speaker. On 1 October the card showed 6 speakers at $70 ($420). On 5 October it purchased 10 speakers at $78 (Inv. 512); no speakers were sold. At balance day, 31 October, the *Echo* is expected to sell for $85 with costs to sell of $19 per speaker (Memo 40). Complete the inventory card.

Both cost prices on hand exceed NRV, so both are written down to NRV. NRV = $85 − $19 = $66. The 6 units at $70 fall by $4 each ($24) and the 10 units at $78 fall by $12 each ($120), a total write-down of $144. All 16 speakers are now carried at the single NRV of $66, so the balance becomes 16 @ $66 = $1 056.

Inventory Card — Echo speaker (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Oct	Balance							6	70	420
5 Oct	Inv. 512	10	78	780				6	70	420
								10	78	780
31 Oct	Memo 40 (write-down)				6	4	24	16	66	1056
					10	12	120			

∴ closing inventory is 16 *Echo* speakers at $66 = $1 056, and an Inventory Write-Down of $144 is recorded (Inventory Write-Down Dr $144; Inventory Cr $144).

Practice questions — scaffolded

Question 1

Riverside Décor uses FIFO for the *Halcyon* lamp. On 1 March the card showed 18 lamps at $45 ($810). At balance day, 31 March, the *Halcyon* is expected to sell for $60 with costs to sell of $22 per lamp (Memo 12).

a. Complete the inventory card for March.

b. Calculate the inventory write-down.

c. State the value of Inventory reported in the Balance Sheet as at 31 March.

Question 2

Brightside Living uses FIFO for the *Cove* rug. On 1 April the card showed 25 rugs at $30 ($750). At balance day, 30 April, the *Cove* is expected to sell for $55 with costs to sell of $12 per rug.

a. Calculate the net realisable value of the *Cove* rug.

b. State whether a write-down is required, and justify your answer in one sentence.

c. State the value at which Inventory is reported in the Balance Sheet as at 30 April.

Question 3

Fernwood Trading uses FIFO for the *Cabin* heater. On 1 May the card showed 5 heaters at $88 ($440). On 6 May it purchased 15 heaters at $96 (Inv. 305) and on 16 May it sold 5 heaters (Inv. S71). At balance day, 31 May, the *Cabin* is expected to sell for $118 with costs to sell of $30 per heater (Memo 22).

a. Complete the inventory card for May.

b. Calculate the inventory write-down.

c. Prepare the General Journal entry to record the write-down.

Question 4

Summit Interiors uses FIFO for the *Vista* mirror. On 1 June the card showed 12 mirrors at $65 ($780). At balance day, 30 June, the *Vista* is expected to sell for $80 with costs to sell of $27 per mirror (Memo 21).

a. Complete the inventory card for June.

b. State the amount reported for the inventory write-down in the Income Statement, and for Inventory in the Balance Sheet as at 30 June.

c. Identify the qualitative characteristic that the lower-of-cost-and-NRV rule most directly upholds, and explain your choice in one sentence.

Question 5

Lakeside Homewares uses FIFO for the *Aura* vase. On 1 July the card showed 40 vases at $12 ($480). At balance day, 31 July, the *Aura* is expected to sell for $20 with costs to sell of $11 per vase (Memo 27).

a. Complete the inventory card for July.

b. Calculate the inventory write-down.

c. Explain, with reference to a relevant qualitative characteristic, why the *Aura* vases are written down rather than left at cost.

Question 6

Parkview Sports uses FIFO for the *Rally* racquet. On 1 August the card showed 4 racquets at $50 ($200). On 7 August it purchased 16 racquets at $58 (Inv. 610); no racquets were sold. At balance day, 31 August, the *Rally* is expected to sell for $65 with costs to sell of $18 per racquet (Memo 26).

a. Complete the inventory card for August.

b. Calculate the total inventory write-down.

c. State the value of closing inventory at 31 August.

Practice questions — unscaffolded

Question 7

Oakmont Trading uses FIFO for the *Trend* jacket. On 1 March the card showed 20 jackets at $36 ($720). At balance day, 31 March, the *Trend* is expected to sell for $50 with costs to sell of $22 per jacket (Memo 14). Prepare the inventory card and state the inventory write-down and the value of closing inventory.

Question 8

Grovetree Supplies uses FIFO for the *Pace* watch. On 1 April the card showed 15 watches at $90 ($1 350). At balance day, 30 April, the *Pace* is expected to sell for $150 with costs to sell of $25 per watch. State the net realisable value, state whether a write-down is required, and state the value at which Inventory is reported in the Balance Sheet as at 30 April.

Question 9

Westbrook Cycles uses FIFO for the *Trail* pedal. On 1 May the card showed 6 pedals at $22 ($132). On 8 May it purchased 24 pedals at $26 (Inv. 318) and on 18 May it sold 6 pedals (Inv. S80). At balance day, 31 May, the *Trail* is expected to sell for $34 with costs to sell of $12 per pedal (Memo 31). Prepare the inventory card, prepare the General Journal entry for the write-down, and state the value of closing inventory.

Question 10

Claremont Timber uses FIFO for the *Board* plank. On 1 June the card showed 30 planks at $15 ($450). At balance day, 30 June, the *Board* is expected to sell for $24 with costs to sell of $12 per plank (Memo 19). Prepare the inventory card and state the amount reported for the inventory write-down in the Income Statement and for Inventory in the Balance Sheet as at 30 June.

Question 11

Northbay Marine uses FIFO for the *Reef* fin. On 1 July the card showed 5 fins at $60 ($300). On 6 July it purchased 15 fins at $68 (Inv. 405); no fins were sold. At balance day, 31 July, the *Reef* is expected to sell for $75 with costs to sell of $20 per fin (Memo 33). Prepare the inventory card and state the total inventory write-down and the value of closing inventory.

Question 12

Ashford Electrical uses FIFO for the *Lumen* globe. On 1 August the card showed 10 globes at $8 ($80). On 7 August it purchased 20 globes at $14 (Inv. 512); no globes were sold. At balance day, 31 August, the *Lumen* is expected to sell for $22 with costs to sell of $10 per globe (Memo 45). Prepare the inventory card and state the inventory write-down and the value of closing inventory. (Consider each cost price separately.)

Question 13

Bayford Trading uses FIFO for the *Swift* kettle. On 1 September the card showed 22 kettles at $28 ($616). At balance day, 30 September, the *Swift* is expected to sell for $40 with costs to sell of $12 per kettle. State the net realisable value, state whether a write-down is required, and justify your answer.

Question 14

At 30 June the inventory card of Kingsford Furniture showed 16 *Manor* tables carried at a cost of $120 each. An inventory write-down of $256 was recorded to bring the tables to net realisable value. Calculate the write-down per unit, the net realisable value per unit, and the total value at which the tables are now reported. (You are not required to prepare the card.)

Question 15

Elmwood Hardware uses FIFO for the *Bolt* latch. On 1 October the card showed 10 latches at $20 ($200). On 4 October it purchased 30 latches at $24 (Inv. 808), on 13 October it sold 10 latches (Inv. S91) and on 26 October it sold a further 10 latches (Inv. S95). At balance day, 31 October, the *Bolt* is expected to sell for $30 with costs to sell of $9 per latch (Memo 41). Prepare the inventory card and state the inventory write-down and the value of closing inventory.

Question 16

Fairbanks Trading holds 50 *Orbit* clocks recorded at a cost of $40 each ($2 000). At balance day the *Orbit* is expected to sell for $46, but the costs to sell are estimated at $9 per clock. Model the effect of applying the lower-of-cost-and-NRV rule on the current period’s net profit and on total assets, and explain why the rule is applied even though the clocks have not yet been sold.

Question 17

Explain, with reference to a relevant qualitative characteristic, why inventory is reported at the lower of cost and net realisable value rather than always at its cost price.

Question 18

Havenport Trading uses FIFO for the *Zephyr* blender. On 1 November the card showed 8 blenders at $30 ($240). On 5 November it purchased 12 blenders at $34 (Inv. 900) and on 12 November it sold 8 blenders (Inv. S95). On 20 November it purchased 10 blenders at $38 (Inv. 915). At balance day, 30 November, the *Zephyr* is expected to sell for $44 with costs to sell of $12 per blender (Memo 47). Prepare the inventory card and state the total inventory write-down and the value of closing inventory.

Answers

1.
    b. $126 c. $684
2.
    a. $43 b. No write-down (NRV $43 > cost $30) c. $750
3.
    b. $120 c. Inventory Write-Down Dr $120 / Inventory Cr $120
4.
    b. Write-down $144; Inventory $636 c. Faithful representation
5.
    b. $120 c. Faithful representation
6.
    b. $188 c. $940
7. Write-down $160; closing inventory $560 (20 @ $28)
8. NRV $125; no write-down (NRV > cost); Inventory $1 350
9. Write-down $96; closing inventory $528 (24 @ $22); Inventory Write-Down Dr $96 / Inventory Cr $96
10. Inventory write-down $90; Inventory (Balance Sheet) $360
11. Write-down $220; closing inventory $1 100 (20 @ $55)
12. Write-down $40; closing inventory $320 (10 @ $8 + 20 @ $12)
13. NRV $28; no write-down (NRV $28 = cost $28); Inventory $616
14. Write-down per unit $16; NRV $104; reported $1 664 (16 @ $104)
15. Write-down $60; closing inventory $420 (20 @ $21)
16. NRV $37; write-down $150; net profit falls $150 and total assets fall $150
17. See solutions
18. Write-down $84; closing inventory $704 (22 @ $32)

Fully-worked solutions

Question 1

NRV = $60 − $22 = $38, which is below the $45 cost, so a write-down of ($45 − $38) × 18 = $7 × 18 = **$126** is recorded, leaving 18 @ $38 = $684.

Inventory Card — Halcyon lamp (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Mar	Balance							18	45	810
31 Mar	Memo 12 (write-down)				18	7	126	18	38	684

c. Inventory in the Balance Sheet as at 31 March = 18 @ $38 = **$684** (a current asset).

Question 2

a. NRV = $55 − $12 = **$43**.

b. **No write-down is required.** NRV ($43) is *above* the cost ($30), so the lower of cost and NRV is the cost; inventory is never written up above cost.

c. Inventory is reported at cost = 25 @ $30 = **$750**.

Question 3

The sale of 5 heaters on 16 May is assigned the 5 oldest units at $88, leaving 15 heaters at $96 ($1 440). NRV = $118 − $30 = $88, below the $96 cost, so the write-down = ($96 − $88) × 15 = $8 × 15 = **$120**, leaving 15 @ $88 = $1 320.

Inventory Card — Cabin heater (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 May	Balance							5	88	440
6 May	Inv. 305	15	96	1440				5	88	440
								15	96	1440
16 May	Inv. S71				5	88	440	15	96	1440
31 May	Memo 22 (write-down)				15	8	120	15	88	1320

c. General Journal:

Date 2025	Details	Debit $	Credit $
31 May	Inventory Write-Down	120	
	Inventory		120
	Write-down of 15 Cabin heaters from cost to net realisable value (Memo 22)		

Question 4

NRV = $80 − $27 = $53, below the $65 cost, so the write-down = ($65 − $53) × 12 = $12 × 12 = $144, leaving 12 @ $53 = $636.

Inventory Card — Vista mirror (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jun	Balance							12	65	780
30 Jun	Memo 21 (write-down)				12	12	144	12	53	636

b. Inventory Write-Down reported in the Income Statement = **$144**; Inventory reported in the Balance Sheet as at 30 June = **$636**.

c. **Faithful representation.** Reporting the mirrors at the lower NRV ensures the Inventory asset is not overstated, so the Balance Sheet and profit are complete, neutral and free from material error.

Question 5

NRV = $20 − $11 = $9, below the $12 cost, so the write-down = ($12 − $9) × 40 = $3 × 40 = **$120**, leaving 40 @ $9 = $360.

Inventory Card — Aura vase (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jul	Balance							40	12	480

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
31 Jul	Memo 27 (write-down)				40	3	120	40	9	360

c. **Faithful representation.** By balance day the amount the business can recover from each vase ($9) has fallen below its cost ($12); leaving the vases at cost would overstate both the Inventory asset and the period's profit. Writing them down to NRV reports the inventory at the amount it can actually realise, so the reports faithfully represent the business's real position and performance.

Question 6

NRV = $65 − $18 = $47. Both cost prices on hand exceed $47, so both are written down to $47: the 4 units at $50 fall by $3 each ($12) and the 16 units at $58 fall by $11 each ($176), a total write-down of **$188**, leaving 20 @ $47 = $940.

Inventory Card — Rally racquet (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Aug	Balance							4	50	200
7 Aug	Inv. 610	16	58	928				4	50	200
								16	58	928
31 Aug	Memo 26 (write-down)				4	3	12	20	47	940
					16	11	176			

c. Closing inventory = 20 @ $47 = **$940**.

Question 7

NRV = $50 − $22 = $28, below the $36 cost, so the write-down = ($36 − $28) × 20 = $8 × 20 = **$160**, leaving 20 @ $28 = **$560**.

Inventory Card — Trend jacket (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Mar	Balance							20	36	720
31 Mar	Memo 14 (write-down)				20	8	160	20	28	560

Question 8

NRV = $150 − $25 = **$125**. NRV ($125) is *above* cost ($90), so **no write-down is required** — inventory is never written up above cost. Inventory is reported at cost = 15 @ $90 = **$1 350**.

Inventory Card — Pace watch (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Apr	Balance							15	90	1350

Question 9

The sale of 6 pedals on 18 May is assigned the 6 oldest units at $22, leaving 24 pedals at $26 ($624). NRV = $34 − $12 = $22, below the $26 cost, so the write-down = ($26 − $22) × 24 = $4 × 24 = **$96**, leaving 24 @ $22 = **$528**.

Inventory Card — Trail pedal (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 May	Balance							6	22	132
8 May	Inv. 318	24	26	624				6	22	132
								24	26	624
18 May	Inv. S80				6	22	132	24	26	624
31 May	Memo 31 (write-down)				24	4	96	24	22	528

Date 2025	Details	Debit $	Credit $
31 May	Inventory Write-Down	96	
	Inventory		96
	Write-down of 24 Trail pedals from cost to net realisable value (Memo 31)		

Question 10

NRV = $24 − $12 = $12, below the $15 cost, so the write-down = ($15 − $12) × 30 = $3 × 30 = **$90**, leaving 30 @ $12 = $360.

Inventory Card — Board plank (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jun	Balance							30	15	450
30 Jun	Memo 19 (write-down)				30	3	90	30	12	360

Inventory Write-Down reported in the Income Statement = **$90**; Inventory reported in the Balance Sheet as at 30 June = **$360** (a current asset).

Question 11

NRV = $75 − $20 = $55. Both cost prices exceed $55, so both are written down to $55: the 5 units at $60 fall by $5 each ($25) and the 15 units at $68 fall by $13 each ($195), a total write-down of **$220**, leaving 20 @ $55 = **$1 100**.

Inventory Card — Reef fin (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jul	Balance							5	60	300
6 Jul	Inv. 405	15	68	1020				5	60	300
								15	68	1020
31 Jul	Memo 33 (write-down)				5	5	25	20	55	1100
					15	13	195			

Question 12

NRV = \$22 − \$10 = \$12. The two cost prices are treated separately. The 10 units at \$8 are **already below** NRV, so they stay at their \$8 cost (inventory is never written up). The 20 units at \$14 are **above** NRV, so they are written down by (\$14 − \$12) × 20 = \$2 × 20 = **\$40**, to \$12 each. Closing inventory = (10 @ \$8) + (20 @ \$12) = \$80 + \$240 = **\$320**.

Inventory Card — Lumen globe (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Aug	Balance							10	8	80
7 Aug	Inv. 512	20	14	280				10	8	80
								20	14	280
31 Aug	Memo 45 (write-down)				20	2	40	10	8	80
								20	12	240

Question 13

NRV = \$40 − \$12 = **\$28**. NRV (\$28) equals the cost (\$28), so the lower of the two is \$28 and **no write-down is required**. Inventory is reported at 22 @ \$28 = **\$616**. A write-down arises only when NRV is *below* cost.

Question 14

Write-down per unit = \$256 ÷ 16 = **\$16**. NRV per unit = cost − write-down per unit = \$120 − \$16 = **\$104**. The tables are now reported at 16 @ \$104 = **\$1 664** (equivalently, \$1 920 cost − \$256 write-down = \$1 664).

Question 15

The 13 October sale (10 latches) is assigned the 10 oldest units at \$20, and the 26 October sale (10 latches) is then assigned 10 of the \$24 units, leaving 20 latches at \$24 (\$480). NRV = \$30 − \$9 = \$21, below the \$24 cost, so the write-down = (\$24 − \$21) × 20 = \$3 × 20 = **\$60**, leaving 20 @ \$21 = **\$420**.

Inventory Card — Bolt latch (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Oct	Balance							10	20	200
4 Oct	Inv. 808	30	24	720				10	20	200
								30	24	720

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
13 Oct	Inv. S91				10	20	200	30	24	720
26 Oct	Inv. S95				10	24	240	20	24	480
31 Oct	Memo 41 (write-down)				20	3	60	20	21	420

Question 16

NRV = \$46 − \$9 = \$37, which is below the \$40 cost, so the clocks are written down by (\$40 − \$37) × 50 = \$3 × 50 = **\$150**. Applying the rule reduces the current period's **Adjusted Gross Profit and net profit by \$150** (the Inventory Write-Down is an expense deducted after Gross Profit, not one of the Other Expenses) and reduces **total assets by \$150** (the Inventory asset falls to 50 @ \$37 = \$1 850). The rule is applied even though the clocks are unsold because the loss in value has **already occurred** by balance day — the amount the business can recover has fallen below cost — and under **faithful representation** that fall must be recognised in the period it happened, so that the asset and profit are not overstated. Recognising it now, rather than waiting until the clocks are sold in a later period, also keeps the reports **relevant** and complete for decisions made on them today.

Question 17

Reporting inventory at the lower of cost and net realisable value upholds **faithful representation**. If the amount an item can realise (NRV) has fallen below its cost, continuing to carry it at cost would **overstate** the Inventory asset in the Balance Sheet and overstate profit in the Income Statement (the loss in value would be hidden until the item was eventually sold). Writing the inventory down to NRV reports the asset at the amount the business can actually recover, so the information is complete, neutral and free from material error. The rule is deliberately **one-directional** — inventory is written down when NRV is below cost but never written up above cost — because recognising an unrealised gain before a sale has occurred would overstate the asset and profit and would not faithfully represent the business's position.

Question 18

The 12 November sale (8 blenders) is assigned the 8 oldest units at \$30, leaving 12 at \$34; the 20 November purchase adds 10 at \$38, so the units on hand are 12 @ \$34 and 10 @ \$38. NRV = \$44 − \$12 = \$32. Both cost prices exceed \$32, so both are written down to \$32: the 12 units at \$34 fall by \$2 each (\$24) and the 10 units at \$38 fall by \$6 each (\$60), a total write-down of **\$84**, leaving 22 @ \$32 = **\$704**.

Inventory Card — Zephyr blender (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Nov	Balance							8	30	240
5 Nov	Inv. 900	12	34	408				8	30	240
								12	34	408
12 Nov	Inv. S95				8	30	240	12	34	408
20 Nov	Inv. 915	10	38	380				12	34	408
								10	38	380
30 Nov	Memo 47 (write-down)				12	2	24	22	32	704
					10	6	60			

Closing inventory = 22 *Zephyr* blenders at $32 = **$704**.

Chapter 9 Valuing and managing inventory — 9D Inventory turnover and management

Theory

Selling inventory is the central activity of a trading business, so how **quickly** inventory is sold is one of the clearest signs of how well the business is being managed. Two firms may report the same profit, yet the one that sells and replaces its inventory more often is using its resources more efficiently — its cash is not left sitting on the shelf. The **Inventory Turnover** indicator measures this speed.

Inventory Turnover is a measure of the **average number of days** a business takes to **sell (turn over) its inventory**. It relates the average value of inventory held to the cost of the inventory that has been sold over the period:

$$\text{Inventory Turnover (days)} = \frac{\text{Average Inventory}}{\text{Cost of Goods Sold}} \times 365$$

where

$$\text{Average Inventory} = \frac{\text{Opening Inventory} + \text{Closing Inventory}}{2}$$

Three points about the formula matter:

- **Average Inventory** is used because the indicator compares a *balance* (inventory, measured at a point in time) with a *flow* (cost of goods sold, measured across the whole period). Averaging the **opening** and **closing** inventory balances gives a figure that represents the level of inventory held *throughout* the period, so the comparison is like-with-like.
- **Cost of Goods Sold** — not sales revenue — is the denominator, because inventory is recorded at **cost**, so the flow it must be compared against is also measured at cost. Cost of Goods Sold is the total cost of the inventory sold during the period: the **Cost of Sales** figure *plus* any inventory cost reported on a **separate line** in arriving at Gross Profit — a **period cost**, such as **cartage inwards** on a mixed delivery or insurance of inventory in storage. Both product and period costs are incurred to get inventory into a **condition and location ready for sale**; what separates them is that a **product cost** *can* be allocated to individual units on a **logical basis**, so it is built into the unit cost on the inventory card and is therefore **already inside Cost of Sales**, while a **period cost** *cannot* be allocated that way, so it is recorded separately and added to Cost of Sales to give Cost of Goods Sold. Costs incurred once the inventory is already ready for sale — advertising, delivery to customers — are **Other Expenses** below the Gross Profit line and are excluded.
- **× 365** converts the result into a number of **days**, because there are 365 days in the year. The answer is always expressed in days and is conventionally rounded to **one decimal place**.

Interpreting the result. The figure is the average number of days a unit of inventory sits in the business before it is sold:

- A **lower** Inventory Turnover (**fewer days**) means inventory is selling **faster** — the business is converting inventory into sales, and therefore into cash or accounts receivable, more quickly.
- A **higher** Inventory Turnover (**more days**) means inventory is selling **slower** — units are sitting on hand for longer before they are sold.

A single figure means little on its own. It becomes useful when it is **compared** — against the same business in **previous periods** (is inventory turning over faster or slower than before?), against **similar businesses** or an **industry benchmark**, and always with regard to the **nature of the inventory**. A greengrocer selling perishable produce should turn its inventory over in a handful of days; a jeweller selling high-value, low-volume stock may take many months, and neither figure is "wrong". Comparing only *like* businesses respects the qualitative characteristic of **comparability**.

Why faster is usually better. Selling inventory quickly generally strengthens a business:

- **Liquidity** improves — cash is not tied up in unsold stock, so it is available to pay expenses, suppliers and loans, or to buy more inventory.
- **Holding costs** fall — less is spent on storage, insurance, refrigeration and handling.

- The **risk of obsolescence, spoilage, theft and damage** is reduced, because inventory spends less time on hand. Fresh, current stock is also more attractive to customers.

The trade-offs — shorter versus longer turnover. Faster is not *always* better, and a business must weigh competing effects:

- A **very short** turnover can mean inventory levels are kept **too low**. The business then risks **stockouts** — running out of popular lines, losing sales and disappointing customers, who may take their custom elsewhere. A short turnover achieved by heavy **discounting** also erodes the gross profit margin, so the inventory sells quickly but earns less on each sale.
- A **longer** turnover ties up more cash in inventory and raises **holding costs** and the risk of **obsolescence** — but a business may deliberately accept it in order to hold a **buffer** against stockouts, to carry a **fuller range**, or because its inventory is naturally high-value and slow-moving.

Sound management therefore aims for a turnover that is **fast enough** to keep cash moving and stock fresh, but **not so fast** that the business cannot meet customer demand.

Strategies for managing inventory effectively. A business can influence its Inventory Turnover, and protect the reliability of its records, through practical inventory-management strategies:

- **Regular physical counts (stocktakes)** — periodically counting inventory on hand and reconciling it with the inventory cards detects loss, theft, damage and recording errors, keeps the records a **faithful representation**, and highlights slow-moving lines that need attention.
- **Stock rotation** — bringing older stock to the front so it sells before newer stock ("first in, first out" on the shelf, or "first expired, first out" for dated goods) reduces spoilage and obsolescence, especially for perishables.
- **Setting expected (appropriate) inventory levels** — establishing sensible minimum and maximum levels and reorder points, matched to expected demand, avoids both overstocking (which slows turnover) and stockouts (which cost sales).
- **Maintaining a complementary product range** — stocking lines that sell together or support one another, and dropping poor sellers in favour of faster-moving lines, keeps cash working in inventory that customers actually want.
- **Efficient delivery and handling** — using reliable suppliers with dependable lead times, ordering in suitable quantities, and handling and storing stock carefully, reduces damage and lets the business hold less "safety" stock without risking stockouts.
- **Internal controls over inventory** — secure and organised storage, restricted access, separation of the ordering, receiving and recording duties, and documented movements all guard against theft and error and keep turnover figures meaningful.

Non-financial information. Non-financial information is information that is **not expressed in dollars** and is **not drawn from the accounting records**, but which is still useful for decision-making. For inventory it includes the **number of units sold**, **customer feedback and complaints**, the **number of stockouts**, **supplier delivery times and reliability**, **wastage and spoilage counts**, **competitor pricing**, and **market trends and fashions**. Financial indicators such as Inventory Turnover tell the business **what** has happened; non-financial information often explains **why**. A turnover that has slowed may be explained by a fashion shift that has left stock unsold, a new competitor, or a supplier's delivery delays — none of which appears in the ledger, but all of which the business needs in order to decide what to do next.

Worked model. Tanderra Homewares held inventory of $52 000 at the start of the year ended 30 June 2026 and $48 000 at the end. Its cost of goods sold for the year was $365 000.

Average inventory = ($52 000 + $48 000) ÷ 2 = **$50 000**. Inventory Turnover = $50 000 × 365 ÷ $365 000 = **50.0 days**.

Inventory Turnover

Working	$
Average inventory ($52 000 + $48 000) ÷ 2	50 000
Cost of goods sold	365 000
Inventory Turnover = 50 000 × 365 ÷ 365 000	50.0 days

On average, Tanderra takes **50 days** to sell its inventory. Whether that is satisfactory depends on how it compares with earlier years and with similar homewares retailers.

Ethical considerations in managing inventory. Managing inventory is not only a financial decision but an ethical one, because the way inventory is valued and reported directly shapes the figures that owners, lenders and other users rely on. A slow-moving or obsolete line should be written down once its value to the business falls below its recorded cost; deliberately leaving such stock on the books at full cost keeps reported **assets** and **profit** looking higher than they truly are, but it misleads users and breaches **faithful representation** — the requirement that reports be complete, free from material error and without bias. An owner whose stocktake has revealed damaged, superseded or unsaleable goods therefore has a responsibility to report that condition **honestly**, disclosing the true state of inventory rather than concealing it to flatter the business's position or to secure finance.

Ethical questions also reach beyond the records into how inventory is **sourced** and sold. Decisions about which suppliers to use carry **social and environmental** dimensions — whether goods are produced under safe and fair labour conditions, whether packaging and transport are environmentally responsible, and whether a relentless drive for the fastest possible turnover imposes unreasonable demands on suppliers. A business that chases a short-term financial gain while ignoring these considerations may damage its reputation and its longer-term relationships. In weighing such choices, owners commonly use **ICT tools such as spreadsheets** to model and analyse alternative inventory strategies, comparing how different stock levels, reorder points and supplier terms would affect turnover, holding costs and profit before deciding on a course of action.

Worked examples (scaffolded)

Example 1 — calculating and interpreting Inventory Turnover

Brightside Cycles held inventory of $36 000 at the start of the year ended 30 June 2026 and $44 000 at the end. Cost of goods sold for the year was $300 000. Similar cycle retailers average about 45 days. Calculate the Inventory Turnover and interpret it.

Working	Comment
Average inventory = ($36 000 + $44 000) ÷ 2 = **$40 000**.	Average the opening and closing balances — a balance is being compared with a period-long flow.
Inventory Turnover = $40 000 × 365 ÷ $300 000 = **48.7 days**.	Multiply the average by 365, then divide by cost of goods sold; round to one decimal place.
At 48.7 days the business is about **4 days slower** than the 45-day sector average.	A higher figure means inventory sells more slowly than comparable businesses.

Inventory Turnover

Working	$
Average inventory	40 000
Cost of goods sold	300 000
Inventory Turnover = 40 000 × 365 ÷ 300 000	48.7 days

Brightside takes on average **48.7 days** to sell its inventory — a little slower than similar retailers. The difference is small, but management would want to know *why* it holds stock marginally longer than its competitors, as slower turnover ties up cash and raises the risk of models becoming outdated.

Example 2 — interpreting a change over two years

Harrowgate Furniture reports the following:

Item	2025	2026
Opening inventory $	58 000	62 000
Closing inventory $	62 000	48 000
Cost of goods sold $	300 000	330 000

Calculate the Inventory Turnover for each year and interpret the change.

Working	Comment
2025: average inventory = ($58 000 + $62 000) ÷ 2 = **$60 000**.	Opening plus closing, divided by two.
2025: Inventory Turnover = $60 000 × 365 ÷ $300 000 = **73.0 days**.	The 2025 benchmark for the business.
2026: average inventory = ($62 000 + $48 000) ÷ 2 = **$55 000**.	The 2025 closing balance becomes the 2026 opening balance.
2026: Inventory Turnover = $55 000 × 365 ÷ $330 000 = **60.8 days**.	Lower average inventory *and* higher cost of goods sold both pull the figure down.
Change = 73.0 − 60.8 = **12.2 days faster**.	A fall in the number of days means inventory is selling more quickly.

Harrowgate's Inventory Turnover has fallen from 73.0 to 60.8 days, so inventory is now selling about **12 days faster**. The business is holding a lower average level of inventory while selling more (cost of goods sold rose), which frees up cash and reduces the risk of furniture becoming outdated — a favourable trend, provided the leaner stock levels have not caused any lines to sell out.

Worked examples (unscaffolded)

Example 3 — comparing two products

Cobbler's Lane Grocers monitors two ranges separately for the year ended 30 June 2026. Its **fresh produce** opened at $4 000 and closed at $6 000, with a cost of goods sold of $182 500. Its **canned goods** opened at $16 000 and closed at $20 000, with a cost of goods sold of $219 000. Calculate the Inventory Turnover for each range and explain the difference.

Fresh produce: average inventory = ($4 000 + $6 000) ÷ 2 = $5 000; Inventory Turnover = $5 000 × 365 ÷ $182 500 = **10.0 days**. Canned goods: average inventory = ($16 000 + $20 000) ÷ 2 = $18 000; Inventory Turnover = $18 000 × 365 ÷ $219 000 = **30.0 days**.

The fresh produce turns over in 10 days while the canned goods take 30 days. This is exactly what the **nature** of each range would suggest: fresh produce is perishable and *must* be sold quickly before it spoils, so the business deliberately holds little of it and replaces it often; canned goods keep for far longer, so a slower turnover carries little risk.

∴ the two figures are not directly comparable — each range must be judged against what is appropriate for that type of inventory, not against the other.

Example 4 — evaluating a strategy's effect

Wattle & Vine Cellars had a cost of goods sold of $292 000 for the year. Before introducing a reorder-point system its **average inventory** was $48 000; after the system was fully in place its average inventory was $32 000, with cost of goods sold unchanged. Evaluate the effect of the strategy on the Inventory Turnover.

Before: Inventory Turnover = $48 000 × 365 ÷ $292 000 = **60.0 days**. After: Inventory Turnover = $32 000 × 365 ÷ $292 000 = **40.0 days**. The strategy has cut the turnover by **20 days**, from 60.0 to 40.0.

Because cost of goods sold (and therefore sales) was unchanged, the whole improvement comes from holding a lower average level of inventory. By ordering more precisely to demand, the business now sells its inventory 20 days sooner, releasing cash that had been tied up on the shelf and reducing storage and obsolescence costs.

∴ the strategy is effective — but management should confirm that the leaner inventory has not caused **stockouts**; if popular lines now run out, the faster turnover would come at the cost of lost sales.

Practice questions — scaffolded

Question 1

Maple Court Stationery held inventory of $22 000 at the start of the year ended 30 June 2026 and $26 000 at the end. Cost of goods sold for the year was $219 000.

a. Calculate the average inventory.

b. Calculate the Inventory Turnover in days.

c. Interpret the result in one sentence.

Question 2

Ridgeway Sports reports:

Item	2025	2026
Opening inventory $	38 000	42 000
Closing inventory $	42 000	48 000
Cost of goods sold $	300 000	300 000

a. Calculate the Inventory Turnover for each year.

b. State whether inventory is now selling faster or slower, and by how many days.

c. Explain one implication of the change for the business.

Question 3

Lockwood Menswear reviews two ranges for the year ended 30 June 2026. Its **house-brand shirts** opened at $10 000 and closed at $14 000, with a cost of goods sold of $219 000. Its **premium reserve suits** opened at $32 000 and closed at $28 000, with a cost of goods sold of $182 500.

a. Calculate the Inventory Turnover for each range.

b. State which range sells faster.

c. Explain one reason the two turnover figures differ.

Question 4

Draymond Electrical held inventory of $55 000 at the start of the year ended 30 June 2026 and $65 000 at the end. Cost of goods sold for the year was $365 000. Comparable electrical retailers average about 40 days.

a. Calculate the Inventory Turnover in days.

b. State whether the business is turning over its inventory faster or slower than the industry average.

c. Discuss two strategies Draymond could use to sell its inventory more quickly.

Question 5

Pennywise Pharmacy had a cost of goods sold of $365 000 for the year. Before reviewing its ordering its **average inventory** was $50 000; after the review its average inventory was $40 000, with cost of goods sold unchanged.

a. Calculate the Inventory Turnover before and after the review.

b. State the improvement in days.

c. Explain one risk if the business reduces its inventory too far.

Question 6

Cascade Outdoor held inventory of $42 000 at the start of the year ended 30 June 2026 and $48 000 at the end. Cost of goods sold for the year was $328 500.

a. Calculate the Inventory Turnover in days.

b. Explain one trade-off of aiming for a much shorter Inventory Turnover.

c. Identify one piece of non-financial information that would help management interpret the result.

Practice questions — unscaffolded

Question 7

Gulliver Toys held inventory of $28 000 at the start of the year ended 30 June 2026 and $32 000 at the end. Cost of goods sold for the year was $219 000. Calculate the Inventory Turnover in days.

Question 8

Ironbark Hardware held inventory of $70 000 at the start of the year ended 30 June 2026 and $50 000 at the end. Cost of goods sold for the year was $400 000. Calculate the Inventory Turnover in days.

Question 9

Seabreeze Swimwear reports: opening inventory $50 000 and closing inventory $46 000 with a cost of goods sold of $292 000 in 2025; opening inventory $46 000 and closing inventory $34 000 with a cost of goods sold of $365 000 in 2026. Calculate the Inventory Turnover for each year and state whether inventory is selling faster or slower, and by how many days.

Question 10

Fennimore Deli reviews two departments for the year ended 30 June 2026. Its **smallgoods** opened at $7 000 and closed at $9 000, with a cost of goods sold of $292 000. Its **pantry** department opened at $24 000 and closed at $26 000, with a cost of goods sold of $182 500. Calculate the Inventory Turnover for each department and explain which result is the more concerning and why.

Question 11

Hollybrook Nursery had a cost of goods sold of $219 000 for the year, unchanged before and after it introduced a stock-rotation and reorder-level system. Before the system its **average inventory** was $36 000; after the system was fully in place its average inventory was $24 000. Calculate the Inventory Turnover before and after, and evaluate whether the strategy was effective.

Question 12

Kirribilli Kitchens held inventory of $50 000 at the start of the year ended 30 June 2026 and $58 000 at the end. Cost of goods sold for the year was $328 500, and comparable kitchenware retailers average about 40 days. Calculate the Inventory Turnover in days and discuss two strategies the business could use to manage its inventory more effectively.

Question 13

Larkspur Bakery held inventory of $17 000 at the start of the year ended 30 June 2026 and $19 000 at the end. Cost of goods sold for the year was $365 000. Calculate the Inventory Turnover in days, and explain one trade-off the bakery must manage in pursuing such a fast turnover.

Question 14

Regent Jewellers held inventory of $76 000 at the start of the year ended 30 June 2026 and $84 000 at the end. Cost of goods sold for the year was $365 000. Calculate the Inventory Turnover in days, and explain one cost the business carries as a result of such a slow turnover, and one reason the figure may nonetheless be acceptable for this type of business.

Question 15

Torrington Tiles reports for the year ended 30 June 2026: cost of sales $285 000 and cartage inwards $15 000 (both part of the cost of the inventory sold). Opening inventory was $38 000 and closing inventory was $42 000. Calculate the cost of goods sold and the Inventory Turnover in days.

Question 16

Alderney Fashion had an **average inventory** of $40 000 in 2025 and $55 000 in 2026, with a cost of goods sold of $365 000 in each year. Calculate the Inventory Turnover for each year, state the change, and explain how one piece of non-financial information could help explain it.

Question 17

Bramblewood Timber reports for the year ended 30 June 2026: cost of sales $282 000 and cartage inwards $10 000 (both part of the cost of the inventory sold). Opening inventory was $44 000 and closing inventory was $52 000. Calculate the cost of goods sold and the Inventory Turnover in days, and recommend one strategy the business could use to improve the result.

Question 18

Copperfield Cookware overhauled its inventory management over two years. It reports: opening inventory $64 000 and closing inventory $56 000 with a cost of goods sold of $292 000 in 2025; opening inventory $56 000 and closing inventory $44 000 with a cost of goods sold of $365 000 in 2026. Calculate the Inventory Turnover for each year, evaluate the effect of the overhaul, and recommend one thing management should monitor.

Question 19

At the 30 June 2026 stocktake, the owner of Ravensworth Furnishings finds that a large range of last season's lounge suites is now unsaleable at its recorded cost and should be written down. The owner is about to apply for a bank loan and is reluctant to record the write-down, arguing that "the stock might still sell one day" and that a lower inventory figure would weaken the application. Discuss the ethical issues this raises, referring to **faithful representation** and the owner's responsibility to report honestly.

Question 20

Brindabella Apparel has driven its Inventory Turnover to an industry-leading figure by requiring its suppliers to hold stock on the business's behalf, deliver at very short notice, and accept late payment and last-minute changes to orders. The strategy has improved the business's liquidity and lowered its holding costs. Discuss the ethical considerations — including the **social and environmental** dimensions of supplier relationships — that the owner should weigh against the financial benefits of such a fast turnover.

Answers

1.
    a. $24 000 b. 40.0 days
2.
    a. 2025 = 48.7 days; 2026 = 54.8 days b. Slower, by 6.1 days
3.
    a. House-brand shirts 20.0 days; premium reserve suits 60.0 days b. House-brand shirts
4.
    a. 60.0 days b. Slower (by about 20 days) than the 40-day average
5.
    a. 50.0 days; 40.0 days b. 10 days faster
6.
    a. 50.0 days
7. 50.0 days (average inventory $30 000)
8. 54.8 days (average inventory $60 000)
9. 2025 = 60.0 days; 2026 = 40.0 days; faster, by 20 days
10. Smallgoods 10.0 days; pantry 50.0 days
11. Before 60.0 days; after 40.0 days; 20 days faster
12. 60.0 days (average inventory $54 000)
13. 18.0 days (average inventory $18 000)
14. 80.0 days (average inventory $80 000)
15. Cost of goods sold $300 000; 48.7 days
16. 2025 = 40.0 days; 2026 = 55.0 days; 15 days slower
17. Cost of goods sold $292 000; 60.0 days
18. 2025 = 75.0 days; 2026 = 50.0 days; 25 days faster
19. See solutions
20. See solutions

Fully-worked solutions

Question 1

a. Average inventory = ($22 000 + $26 000) ÷ 2 = **$24 000**.

b. Inventory Turnover = $24 000 × 365 ÷ $219 000 = $8 760 000 ÷ $219 000 = **40.0 days**.

c. On average, Maple Court takes 40 days to sell its inventory.

Question 2

a. 2025: average inventory = ($38 000 + $42 000) ÷ 2 = $40 000; Inventory Turnover = $40 000 × 365 ÷ $300 000 = **48.7 days**. 2026: average inventory = ($42 000 + $48 000) ÷ 2 = $45 000; Inventory Turnover = $45 000 × 365 ÷ $300 000 = **54.8 days**.

b. The number of days has risen from 48.7 to 54.8, so inventory is selling **slower, by 6.1 days**.

c. With cost of goods sold unchanged, the business is now holding a higher average level of inventory that is taking longer to sell. This ties up more cash in stock and raises holding and obsolescence costs, so management should check whether it has overstocked or whether some lines have slowed.

Question 3

a. House-brand shirts: average inventory = ($10 000 + $14 000) ÷ 2 = $12 000; Inventory Turnover = $12 000 × 365 ÷ $219 000 = $4 380 000 ÷ $219 000 = **20.0 days**. Premium reserve suits: average inventory = ($32 000 + $28 000) ÷ 2 = $30 000; Inventory Turnover = $30 000 × 365 ÷ $182 500 = $10 950 000 ÷ $182 500 = **60.0 days**.

b. The **house-brand shirts** sell faster — 20.0 days against 60.0 days for the suits.

c. The ranges are different in nature: house-brand shirts are lower-priced, everyday items bought frequently and in volume, so they sell quickly; premium reserve suits are high-value, occasional purchases that sell in smaller numbers, so a slower turnover is expected and not a cause for concern in itself.

Question 4

a. Average inventory = ($55 000 + $65 000) ÷ 2 = $60 000; Inventory Turnover = $60 000 × 365 ÷ $365 000 = $21 900 000 ÷ $365 000 = **60.0 days**.

b. At 60.0 days Draymond is turning over its inventory **slower** than the 40-day industry average — about 20 days slower.

c. Two strategies to sell inventory more quickly: (1) **set appropriate inventory levels** with reorder points matched to demand, so that less capital is tied up in stock that is slow to sell, and **drop poor-selling lines** in favour of faster-moving ones (a more complementary range); and (2) **review pricing and promotion** and **rotate stock** so older models are cleared before they date, supported by **regular stocktakes** that flag slow-movers early. Each reduces the average inventory held relative to sales, lowering the number of days — though management must avoid cutting stock so far that it cannot meet customer demand.

Question 5

a. Before: Inventory Turnover = $50 000 × 365 ÷ $365 000 = $18 250 000 ÷ $365 000 = **50.0 days**. After: Inventory Turnover = $40 000 × 365 ÷ $365 000 = $14 600 000 ÷ $365 000 = **40.0 days**.

b. The turnover has improved by **10 days** (from 50.0 to 40.0).

c. If the pharmacy cuts its inventory too far, it risks **stockouts** — running out of medicines and products customers need. Lost sales, dissatisfied customers who go to a competitor, and damage to the pharmacy's reputation can outweigh the benefit of the faster turnover, so inventory must be lean without being inadequate.

Question 6

a. Average inventory = ($42 000 + $48 000) ÷ 2 = $45 000; Inventory Turnover = $45 000 × 365 ÷ $328 500 = $16 425 000 ÷ $328 500 = **50.0 days**.

b. Aiming for a much shorter turnover usually means holding **less** inventory. The trade-off is the risk of **stockouts**: if the business holds too little, it may be unable to supply popular items when customers want them, losing sales and goodwill — so the gain in speed and liquidity is offset by the risk of lost custom.

c. Useful non-financial information includes the **number of stockouts**, **customer feedback or complaints**, **units sold per line**, **supplier delivery reliability**, or **wastage counts** — any of which helps explain the 50-day figure and whether it should be reduced.

Question 7

Average inventory = ($28 000 + $32 000) ÷ 2 = $30 000. Inventory Turnover = $30 000 × 365 ÷ $219 000 = $10 950 000 ÷ $219 000 = **50.0 days**.

Question 8

Average inventory = ($70 000 + $50 000) ÷ 2 = $60 000. Inventory Turnover = $60 000 × 365 ÷ $400 000 = $21 900 000 ÷ $400 000 = **54.8 days** (54.75, rounded to one decimal place).

Question 9

2025: average inventory = ($50 000 + $46 000) ÷ 2 = $48 000; Inventory Turnover = $48 000 × 365 ÷ $292 000 = $17 520 000 ÷ $292 000 = **60.0 days**. 2026: average inventory = ($46 000 + $34 000) ÷ 2 = $40 000; Inventory Turnover = $40 000 × 365 ÷ $365 000 = $14 600 000 ÷ $365 000 = **40.0 days**. The turnover has fallen from 60.0 to 40.0 days, so inventory is selling **faster, by 20 days**.

Question 10

Smallgoods: average inventory = ($7 000 + $9 000) ÷ 2 = $8 000; Inventory Turnover = $8 000 × 365 ÷ $292 000 = $2 920 000 ÷ $292 000 = **10.0 days**. Pantry: average inventory = ($24 000 + $26 000) ÷ 2 = $25 000; Inventory Turnover = $25 000 × 365 ÷ $182 500 = $9 125 000 ÷ $182 500 = **50.0 days**.

The **pantry** result is the more concerning. Smallgoods are perishable, and a 10-day turnover is appropriate — the department sells its stock before it spoils. Pantry goods keep longer, but 50 days is still a long time to hold non-perishable grocery stock, tying up cash and shelf space; management should check whether the range includes slow sellers that could be reduced.

Question 11

Before: Inventory Turnover = $36 000 × 365 ÷ $219 000 = $13 140 000 ÷ $219 000 = **60.0 days**. After: Inventory Turnover = $24 000 × 365 ÷ $219 000 = $8 760 000 ÷ $219 000 = **40.0 days**.

With cost of goods sold unchanged, the stock-rotation and reorder-level system has cut the average inventory held and improved the turnover by **20 days**. Selling inventory 20 days sooner releases cash, lowers holding costs and — for a nursery, whose plants can deteriorate — reduces spoilage. The strategy is therefore **effective**, provided the lower stock levels have not caused the nursery to run out of popular plants; if stockouts have risen, the gain must be weighed against the lost sales.

Question 12

Average inventory = ($50 000 + $58 000) ÷ 2 = $54 000. Inventory Turnover = $54 000 × 365 ÷ $328 500 = $19 710 000 ÷ $328 500 = **60.0 days**. At 60.0 days Kirribilli is turning over its inventory about 20 days slower than the 40-day sector average. Two strategies: (1) **set expected inventory levels** with reorder points and maximum levels tied to demand, and maintain a **complementary range** by dropping slow-moving lines, so less cash sits in stock that is slow to sell; and (2) run **regular stocktakes** with **stock rotation** to identify and clear ageing inventory before it becomes obsolete, supported by **reliable suppliers** with short lead times so the business can hold less without risking stockouts.

Question 13

Average inventory = ($17 000 + $19 000) ÷ 2 = $18 000. Inventory Turnover = $18 000 × 365 ÷ $365 000 = $6 570 000 ÷ $365 000 = **18.0 days**. A bakery's stock is highly perishable, so an 18-day turnover is expected and desirable. The trade-off it must manage is between turning stock over fast enough to sell it **fresh** — avoiding waste from unsold goods — and holding **enough** each day to meet demand: if it keeps too little to speed turnover further, it risks **stockouts** and lost sales when customers arrive and the shelves are bare.

Question 14

Average inventory = ($76 000 + $84 000) ÷ 2 = $80 000. Inventory Turnover = $80 000 × 365 ÷ $365 000 = $29 200 000 ÷ $365 000 = **80.0 days**. Holding inventory for an average of 80 days carries real costs: a large amount of cash is tied up in unsold stock (weakening liquidity), and the business pays to store, insure and secure high-value goods for a long time. However, the figure may still be acceptable: jewellery is a **high-value, low-volume** product that customers buy occasionally, so a slow turnover is normal for the industry, and the stock does not perish — meaning the risk of obsolescence is low. The 80 days should be judged against **other jewellers**, not against a fast-moving retailer.

Question 15

Cost of goods sold = cost of sales + cartage inwards = $285 000 + $15 000 = **$300 000** (the cartage is reported on a separate line because it could not be allocated to individual tiles on a logical basis — a **period cost** — but it is still part of the cost of the inventory sold, so it belongs inside Cost of Goods Sold). Average inventory = ($38 000 + $42 000) ÷ 2 = $40 000. Inventory Turnover = $40 000 × 365 ÷ $300 000 = $14 600 000 ÷ $300 000 = **48.7 days**.

Question 16

2025: Inventory Turnover = $40 000 × 365 ÷ $365 000 = $14 600 000 ÷ $365 000 = **40.0 days**. 2026: Inventory Turnover = $55 000 × 365 ÷ $365 000 = $20 075 000 ÷ $365 000 = **55.0 days**. With cost of goods sold unchanged, the turnover has slowed by **15 days** because the average inventory held has risen. Non-financial information could explain why: for example, a **shift in fashion** may have left last season's ranges unsold, or **customer feedback** and **competitor activity** may reveal that a rival's new store has drawn away sales. Such information is not in the accounting records,

but it points to *why* inventory is now sitting longer and what management should do — such as marking down and clearing the dated stock and adjusting future buying.

Question 17

Cost of goods sold = cost of sales + cartage inwards = $282 000 + $10 000 = **$292 000**. Average inventory = ($44 000 + $52 000) ÷ 2 = $48 000. Inventory Turnover = $48 000 × 365 ÷ $292 000 = $17 520 000 ÷ $292 000 = **60.0 days**. To improve (lower) the result, Bramblewood could **set expected inventory levels with reorder points matched to demand**, so it stops over-ordering timber that then sits in the yard; combined with **regular stocktakes** and **stock rotation** to move older boards first, this would reduce the average inventory held relative to sales and shorten the number of days — while keeping enough on hand to avoid stockouts.

Question 18

2025: average inventory = ($64 000 + $56 000) ÷ 2 = $60 000; Inventory Turnover = $60 000 × 365 ÷ $292 000 = $21 900 000 ÷ $292 000 = **75.0 days**. 2026: average inventory = ($56 000 + $44 000) ÷ 2 = $50 000; Inventory Turnover = $50 000 × 365 ÷ $365 000 = $18 250 000 ÷ $365 000 = **50.0 days**.

The overhaul has cut the turnover from 75.0 to 50.0 days — inventory now sells **25 days faster**. The business is holding a lower average level of inventory *and* selling more (cost of goods sold rose from $292 000 to $365 000), so the improvement reflects both leaner stock and stronger sales. This is a strongly favourable result: cash is freed up, and holding and obsolescence costs fall. Management should **monitor stockouts and customer feedback** to confirm the leaner inventory is still meeting demand; if popular lines begin to run out, it may need to lift stock levels slightly so that the faster turnover does not start costing sales.

Question 19

Inventory must be reported at the **lower of cost and net realisable value**. Once the stocktake shows the lounge suites can no longer be sold for at least their recorded cost, that cost overstates their true value, and the fall must be recognised through a write-down. Refusing to record it because the loan application would look weaker is not a legitimate accounting judgement — it is a decision to present figures the owner already knows to be misleading.

Leaving the obsolete stock at full cost breaches **faithful representation**: the reports would no longer be complete, free from material error or free from bias, because both the **Inventory** asset and the reported **profit** would be deliberately overstated. The users of those reports — here, the **bank** being asked to lend — would be relying on information the owner knows does not reflect reality, and could make a lending decision they would not otherwise make.

The owner has a responsibility to report **honestly**, which includes disclosing the condition of inventory revealed by the stocktake rather than concealing it for short-term advantage. Beyond the accounting principle, overstating assets to obtain finance risks the business's reputation and its relationship with the bank if the true position later emerges, and it may leave the business over-committed to repayments it cannot meet. The ethical course is to record the write-down and submit the application on figures that faithfully represent the business's position.

Question 20

Judged only on the financial indicators, the strategy looks successful: a faster Inventory Turnover improves liquidity, lowers holding and storage costs, and reduces the risk of obsolescence. An ethical evaluation, however, looks past the numbers to *how* the result has been achieved and *who* bears the cost of it.

Here the improved turnover has been obtained largely by shifting burdens onto **suppliers** — requiring them to carry inventory on Brindabella's behalf, meet very short lead times, absorb late payment, and accommodate last-minute changes. This raises **social** concerns: the pressure may push suppliers, and the workers behind them, towards insecure or unfair working conditions, while late payment can threaten a smaller supplier's own cash flow and survival. There are also **environmental** dimensions — frequent, rushed, small deliveries can add to transport, packaging and waste compared with more planned ordering.

The owner should weigh these considerations against the financial gain. A strategy that is profitable but relies on treating suppliers unfairly is not sustainable: it can damage the business's **reputation**, prompt reliable suppliers to withdraw or raise their prices, and expose the business to disruption if a pressured supplier fails. A more ethical approach seeks turnover gains through fair, well-planned arrangements — realistic lead times, prompt payment and

shared forecasting — that benefit the business without unfairly transferring risk and cost onto others. ICT tools such as spreadsheets can support this by modelling how more balanced ordering and supplier terms affect turnover, costs and profit, so the owner can pursue efficiency without compromising ethical obligations.

Topic 3 Test A — Recording and analysis

Reading time: 10 minutes · Writing time: 50 minutes · 50 marks · A scientific calculator may be used.

Question 1 (15 marks)

Larapinta Cycle Co. is registered for GST and uses the perpetual inventory system, valuing the *Kestrel* mountain bike on a **First-In, First-Out (FIFO)** basis. The following transactions occurred during March 2026.

- **1 Mar** — opening balance: 10 *Kestrel* bikes at $260 each.
- **4 Mar** — purchased 12 *Kestrel* bikes on credit at $290 each (**Invoice 512**), and paid $120 cartage inwards, plus $12 GST, to have the delivery brought to the store (**EFT 2205**).
- **9 Mar** — sold 8 *Kestrel* bikes on credit at $450 each, plus GST (**Invoice S88**).
- **15 Mar** — a customer returned 2 of the bikes sold on 9 March (**Credit Note 30**).
- **22 Mar** — the owner took 1 *Kestrel* bike for personal use (**Memo 14**).
- **30 Mar** — a physical count of the *Kestrel* bikes found 14 on hand (**Memo 20**).

a. Complete the inventory card for the *Kestrel* bike for March. 8 marks

b. Record in the General Journal the credit sale of 9 March (both the revenue entry and the cost-of-sales entry) and the payment of cartage inwards on 4 March. 5 marks

c. Record in the General Journal the drawings on 22 March and the inventory loss on 30 March. 2 marks

Question 2 (9 marks)

Marloo Sports provided the following information for the year ended 30 June 2026.

Item	$
Sales	340 000
Sales Returns	10 000
Cost of Sales	176 000
Cartage Inwards	9 000
Inventory gain	1 200
Inventory loss	2 800
Inventory write-down	4 400
Bank	12 500
Accounts Receivable	18 400
Inventory (closing)	46 000
Prepaid Rent	2 100

a. Prepare the Income Statement (extract) for Marloo Sports from Net Sales down to Adjusted Gross Profit. 6 marks

b. Prepare the Current Assets section of the Balance Sheet as at 30 June 2026. 3 marks

Question 3 (10 marks)

Yarrindi Timber sells building timber and reports the following for two consecutive years. Cartage inwards is a product cost recorded in a separate account.

Item	2025 $	2026 $
Opening inventory	58 000	62 000
Closing inventory	62 000	48 000
Cost of Sales	288 000	350 000
Cartage Inwards	12 000	15 000

a. Calculate the cost of goods sold and the Inventory Turnover (in days) for each year. 5 marks

b. State whether inventory is selling faster or slower in 2026 than in 2025, and by how many days. 1 mark

c. Discuss whether the change in Inventory Turnover is a favourable outcome for Yarrindi Timber, referring to what has caused the change and to one risk the business should monitor. 4 marks

Question 4 (8 marks)

At balance day, 30 June 2026, Kooringal Furniture holds 60 *Drover* dining tables recorded in the inventory card at their cost of $220 each ($13 200). A newer range has since been released, so the *Drover* is now expected to sell for only $250 each, and the delivery and sales commission needed to sell each table are estimated at $60 (**Memo 26**).

a. Calculate the net realisable value of the *Drover* table and the inventory write-down required, and model the effect of recording the write-down on the current period's net profit and on total assets. 5 marks

b. Explain, with reference to a relevant qualitative characteristic, why the write-down is recorded at 30 June even though the tables have not yet been sold. 3 marks

Question 5 (8 marks)

Nardoo Kitchenware held inventory of $36 000 at the start of the year ended 30 June 2026 and $44 000 at the end. Its cost of goods sold for the year was $292 000, giving an Inventory Turnover of **50.0 days**. Comparable kitchenware retailers turn over their inventory in about 40 days.

a. Explain why Inventory Turnover is calculated using the **average** of the opening and closing inventory balances rather than the closing balance alone. 2 marks

b. Discuss two strategies Nardoo Kitchenware could use to sell its inventory more quickly. 4 marks

c. Identify two pieces of non-financial information that would help management interpret the Inventory Turnover figure. 2 marks

Topic 3 Test A — solutions

Question 1

Inventory Card — Kestrel mountain bike (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Mar	Balance							10	260	2600
4 Mar	Inv. 512	12	290	3480				10	260	2600
								12	290	3480
4 Mar	EFT 2205 (cartage inwards)			120				10	260	2600
								12	300	3600
9 Mar	Inv. S88				8	260	2080	2	260	520
								12	300	3600
15 Mar	CN 30 (sales return)	2	260	520				4	260	1040
								12	300	3600
22 Mar	Memo 14 (drawings)				1	260	260	3	260	780
								12	300	3600
30 Mar	Memo 20 (loss)				1	260	260	2	260	520
								12	300	3600

The 4 March cartage of $120 is a **product cost** on the 12 bikes just purchased ($120 ÷ 12 = $10), lifting that batch from $290 to $300. The 9 March sale draws on the oldest cost (8 @ $260 = $2 080). The 15 March return reverses the last units out (2 @ $260). The drawings and the inventory loss are each valued at the oldest cost on hand ($260). Closing inventory = 2 @ $260 + 12 @ $300 = $520 + $3 600 = **$4 120**.

General Journal

Date 2026	Details	Debit $	Credit $
4 Mar	Inventory	120	
	GST Clearing	12	
	Bank		132
	Cartage inwards on purchase of inventory (EFT 2205)		
9 Mar	Accounts Receivable	3 960	
	Sales		3 600
	GST Clearing		360

Date 2026	Details	Debit $	Credit $
	Credit sale of inventory (Invoice S88)		
9 Mar	Cost of Sales	2 080	
	Inventory		2 080
	Cost of inventory sold		

Selling price = 8 × $450 = $3 600; GST = 10% × $3 600 = $360 (= 1/11 of $3 960); the customer owes $3 960. Cartage is added to Inventory at its $120 GST-exclusive cost, with the $12 GST recorded separately in GST Clearing.

General Journal

Date 2026	Details	Debit $	Credit $
22 Mar	Drawings	260	
	Inventory		260
	Drawings of inventory by the owner at cost, no GST (Memo 14)		
30 Mar	Inventory Loss	260	
	Inventory		260
	Inventory loss on physical count, at oldest cost on hand (Memo 20)		

Question 2

Marloo Sports — Income Statement (extract) for the year ended 30 June 2026

Item	$	$
Sales	340 000	
less Sales Returns	10 000	
Net Sales		**330 000**
less **Cost of Goods Sold**		
Cost of Sales	176 000	
add Cartage Inwards	9 000	
Cost of Goods Sold		**185 000**
Gross Profit		**145 000**
add Inventory Gain		1 200
		146 200
less Inventory Loss	2 800	
less Inventory Write-Down	4 400	
Total inventory adjustments		**7 200**
Adjusted Gross Profit		**139 000**

Net Sales = $340 000 − $10 000 = $330 000. Cost of Goods Sold = Cost of Sales $176 000 + Cartage Inwards $9 000 = $185 000, so Gross Profit = $330 000 − $185 000 = $145 000. The inventory gain is added and the inventory loss and write-down are deducted after Gross Profit, giving Adjusted Gross Profit = $146 200 − $7 200 = **$139 000**.

Marloo Sports — Balance Sheet (extract) as at 30 June 2026

Item	$	$
Current Assets		
Bank	12 500	
Accounts Receivable	18 400	
Inventory	46 000	
Prepaid Rent	2 100	
Total Current Assets		**79 000**

Inventory is reported as a current asset at its closing value of $46 000. Total Current Assets = $12 500 + $18 400 + $46 000 + $2 100 = **$79 000**.

Question 3

a. Cost of goods sold = Cost of Sales + Cartage Inwards (a product cost). 2025 = $288 000 + $12 000 = **$300 000**; 2026 = $350 000 + $15 000 = **$365 000**.

Inventory Turnover

Working	2025	2026
Average inventory	60 000	55 000
Cost of goods sold	300 000	365 000
Inventory Turnover (days)	73.0	55.0

2025: average inventory = ($58 000 + $62 000) ÷ 2 = $60 000; Inventory Turnover = $60 000 × 365 ÷ $300 000 = **73.0 days**. 2026: average inventory = ($62 000 + $48 000) ÷ 2 = $55 000; Inventory Turnover = $55 000 × 365 ÷ $365 000 = **55.0 days**.

b. Inventory is selling **faster** in 2026 — by **18.0 days** (73.0 − 55.0).

c. Yarrindi Timber's Inventory Turnover has fallen from 73.0 to 55.0 days, so it is now selling its timber about **18 days faster**. Two forces have combined to cause the change: the average level of inventory held has fallen (from $60 000 to $55 000) while cost of goods sold has risen (from $300 000 to $365 000), so the business is carrying less stock yet selling more of it. On balance this is a **favourable** outcome — turning inventory over faster releases cash that would otherwise sit in the timber yard, improving liquidity; it lowers holding costs such as storage, insurance and handling; and it reduces the risk of timber warping, being damaged or becoming hard to sell. The change is not favourable without qualification, however. The main risk to monitor is **stockouts**: leaner stock levels can tip over into running out of popular lengths and grades, costing sales and sending customers to a competitor, so speed would be bought at the price of lost custom. Management should also check that the faster turnover has not been achieved by heavy discounting, which moves timber quickly but erodes the gross profit margin earned on each sale. The trend is therefore favourable provided the stock held remains sufficient to meet customer demand and margins have held.

Question 4

a. NRV = estimated selling price − estimated costs to sell = $250 − $60 = **$190**. Because NRV ($190) is **below** cost ($220), the tables are written down: write-down = ($220 − $190) × 60 = $30 × 60 = **$1 800**. Recording the write-down **reduces net profit by $1 800** (Inventory Write-Down is an expense deducted in the Income Statement) and **reduces total assets by $1 800** (the Inventory asset falls from $13 200 to 60 @ $190 = $11 400).

b. The loss in the tables' value has **already occurred** by 30 June: the amount Kooringal can now recover from each table (its net realisable value of $190) has fallen below what the table cost ($220). Under **faithful representation**, that fall must be recognised in the period it happened rather than deferred to the period the tables are eventually sold, because continuing to carry the tables at $220 would **overstate** the Inventory asset in the Balance Sheet and overstate profit in the Income Statement. Writing the tables down to $190 now

reports the inventory at the amount the business can actually realise, so the reports are complete, neutral and free from material error.

Question 5

a. Inventory Turnover compares a **balance** — inventory, which is measured at a single point in time — with a **flow**, the cost of goods sold across the whole period. Judging a full year of sales against the stock held on one day would distort the result, because the closing balance may be unusually high or low (for instance, taken just after a large delivery or a clearance sale). Averaging the opening and closing balances — here ($36 000 + $44 000) ÷ 2 = **$40 000** — gives a figure that represents the inventory carried *throughout* the year, so the comparison is like with like.

b. At 50.0 days Nardoo is turning over its inventory about 10 days slower than the 40-day sector average, so it could aim to sell faster. First, it could **set appropriate inventory levels with reorder points tied to expected demand** and **drop poor-selling lines** in favour of faster-moving ones, so less cash is tied up in kitchenware that is slow to sell; this lowers the average inventory held relative to sales and shortens the number of days. Second, it could run **regular stocktakes together with stock rotation**, bringing older stock forward and identifying slow-movers early so they can be marked down and cleared before they date, supported by **reliable suppliers with short lead times** so the business can hold less safety stock without risking stockouts. Both strategies reduce the average inventory carried relative to cost of goods sold, speeding the turnover — though management must avoid cutting stock so far that popular items run out.

c. Any two pieces of **non-financial information**, for example: the **number of stockouts** recorded, **customer feedback or complaints**, the **number of units sold per line**, **supplier delivery reliability and lead times**, or **competitor pricing and activity** — each helps explain *why* inventory is taking 50 days to sell and whether that figure should be reduced.

Topic 3 Test B — Short-answer recording

Reading time: 10 minutes · Writing time: 45 minutes · 40 marks · A scientific calculator may be used.

Question 1 (8 marks)

Corella Hardware uses the perpetual inventory system and values the *Talon* cordless drill on a **FIFO** basis. During May 2025:

- **1 May** — opening balance: 6 *Talon* drills at $44 each.
- **5 May** — purchased 20 *Talon* drills on credit at $50 each (**Invoice 208**).
- **14 May** — sold 11 *Talon* drills (**Invoice S60**).
- **21 May** — a customer returned 2 of the drills sold on 14 May (**Credit Note 18**).

a. Complete the inventory card for the *Talon* drill for May. 6 marks

b. State the cost of sales for the sale on 14 May and the value of closing inventory at 21 May. 2 marks

Question 2 (6 marks)

Bindaree Electrical uses the perpetual inventory system and values the *Aurora* heater using the **Identified Cost** method. During June 2025:

- **1 Jun** — opening balance: 5 *Aurora* heaters at $80 each.
- **6 Jun** — purchased 8 *Aurora* heaters on credit at $88 each (**Invoice 305**).
- **15 Jun** — sold 7 *Aurora* heaters (**Invoice S71**): the units sold were identified as 2 from the opening balance and 5 from the 6 June purchase.

a. Complete the inventory card for the *Aurora* heater for June. 4 marks

b. State the cost of sales for the sale on 15 June and the value of closing inventory. 2 marks

Question 3 (6 marks)

Wanaaring Homewares uses FIFO for the *Lyric* vase. On 1 July 2025 the inventory card showed 30 *Lyric* vases at $16 each ($480). At balance day, 31 July, the *Lyric* is expected to sell for $28 each, but delivery and commission to sell each vase are estimated at $16 (**Memo 22**).

a. Complete the inventory card for the *Lyric* vase for July, showing the write-down. 3 marks

b. Record the inventory write-down in the General Journal. 2 marks

c. State the value of Inventory reported in the Balance Sheet as at 31 July. 1 mark

Question 4 (6 marks)

Tarcoola Traders incurred the following six costs during the year ended 30 June 2025.

Cost incurred by Tarcoola Traders
1. Cartage inwards on purchases of inventory
2. Advertising in a local newspaper
3. Customs duty on imported inventory
4. Delivery of sold goods to customers
5. Insurance of inventory while in transit from the supplier
6. Wages of sales staff

a. Classify each of the six costs as a **product cost** or a **period cost**. 3 marks

b. Explain how classifying a cost as a product cost rather than a period cost affects the reported Gross Profit. 3 marks

Question 5 (5 marks)

The records of Nyah Timber Supplies showed the following for the year ended 30 June 2025. Cartage inwards is recorded in a separate account.

Item	$
Opening inventory	32 000
Credit purchases of inventory	148 000
Closing inventory	28 000
Cartage Inwards	6 000

a. Calculate the cost of sales for the year. 3 marks

b. Calculate the cost of goods sold for the year. 2 marks

Question 6 (5 marks)

Kewell Cycles is registered for GST and uses the perpetual inventory system.

- **8 Aug** — sold 6 *Vireo* bikes on credit at $380 each, plus GST (**Invoice S44**); each bike had cost $210.
- **12 Aug** — the owner took 1 *Vireo* bike for personal use (**Memo 9**).

a. Record the credit sale of 8 August in the General Journal (both entries). 3 marks

b. Record the drawings of 12 August in the General Journal. 2 marks

Question 7 (4 marks)

On 30 September 2025 Perricoota Sports performed a physical count. The count of the *Volley* net recorded an inventory loss of $84 (**Memo 15**), and the count of the *Rally* net recorded an inventory gain of $60 (**Memo 16**).

a. Record the inventory loss in the General Journal. 2 marks

b. Record the inventory gain in the General Journal. 2 marks

Topic 3 Test B — solutions

Question 1

Inventory Card — Talon cordless drill (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 May	Balance							6	44	264
5 May	Inv. 208	20	50	1000				6	44	264
								20	50	1000
14 May	Inv. S60				6	44	264	15	50	750
					5	50	250			
21 May	CN 18 (sales return)	2	50	100				17	50	850

The 14 May sale draws on the oldest cost first — 6 @ $44 then 5 @ $50. The 21 May return reverses the last units out (2 @ $50).

b. Cost of sales (14 May) = $264 + $250 = **$514**; closing inventory = 17 @ $50 = **$850**.

Question 2

Inventory Card — Aurora heater (Identified Cost)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jun	Balance							5	80	400
6 Jun	Inv. 305	8	88	704				5	80	400
								8	88	704
15 Jun	Inv. S71				2	80	160	3	80	240
					5	88	440	3	88	264

Under Identified Cost, the specific units sold are known: 2 @ $80 and 5 @ $88 leave the business, so both cost prices appear in the OUT column and the units left of each remain in the BALANCE column.

b. Cost of sales (15 June) = $160 + $440 = **$600**; closing inventory = 3 @ $80 + 3 @ $88 = $240 + $264 = **$504**.

Question 3

Inventory Card — Lyric vase (FIFO)

Date	Details	IN			OUT			BALANCE		
		Qty	Cost	Total	Qty	Cost	Total	Qty	Cost	Total
1 Jul	Balance							30	16	480
31 Jul	Memo 22 (write-down)						120	30	12	360

NRV = \$28 − \$16 = \$12, which is below the \$16 cost, so the vases are written down by (\$16 − \$12) × 30 = \$4 × 30 = **\$120**, to 30 @ \$12 = \$360. The write-down is entered as an OUT movement of value only (no units leave), and the balance is re-valued at the lower NRV.

General Journal

Date 2025	Details	Debit \$	Credit \$
31 Jul	Inventory Write-Down	120	
	Inventory		120
	Write-down of 30 Lyric vases from cost to net realisable value (Memo 22)		

c. Inventory in the Balance Sheet as at 31 July = 30 @ \$12 = **\$360** (a current asset).

Question 4

Cost	Classification
Cartage inwards on purchases of inventory	Product cost
Advertising in a local newspaper	Period cost
Customs duty on imported inventory	Product cost
Delivery of sold goods to customers	Period cost
Insurance of inventory while in transit from the supplier	Product cost
Wages of sales staff	Period cost

Each product cost is incurred to get the inventory into a condition and location ready for sale; each period cost is not, so it is expensed in the period it is incurred.

b. A **product cost** forms part of **Cost of Goods Sold**, which is deducted from Net Sales *above* the Gross Profit line, so classifying a cost as a product cost reduces **both Gross Profit and Net Profit**. A **period cost** is reported as an **Other Expense** *below* the Gross Profit line, so it reduces **only Net Profit** and leaves Gross Profit unchanged. Moving a cost from period to product classification therefore lowers the reported Gross Profit (and the gross profit margin), even though the final Net Profit is the same — which is why the classification is not a mere labelling exercise.

Question 5

a. Cost of sales = opening inventory + purchases − closing inventory = \$32 000 + \$148 000 − \$28 000 = **\$152 000**.

b. Cost of goods sold = cost of sales + cartage inwards = \$152 000 + \$6 000 = **\$158 000** (cartage inwards is a product cost, so it forms part of the cost of the inventory sold).

Question 6

General Journal

Date 2025	Details	Debit \$	Credit \$
8 Aug	Accounts Receivable	2 508	
	Sales		2 280
	GST Clearing		228
	Credit sale of inventory (Invoice S44)		

Date 2025	Details	Debit $	Credit $
8 Aug	Cost of Sales	1 260	
	Inventory		1 260
	Cost of inventory sold		

Selling price = 6 × $380 = $2 280; GST = 10% × $2 280 = $228 (= 1/11 of $2 508); Accounts Receivable = $2 508. Cost of Sales = 6 × $210 = $1 260.

General Journal

Date 2025	Details	Debit $	Credit $
12 Aug	Drawings	210	
	Inventory		210
	Drawings of inventory by the owner at cost, no GST (Memo 9)		

Question 7

General Journal

Date 2025	Details	Debit $	Credit $
30 Sep	Inventory Loss	84	
	Inventory		84
	Inventory loss on physical count (Memo 15)		

General Journal

Date 2025	Details	Debit $	Credit $
30 Sep	Inventory	60	
	Inventory Gain		60
	Inventory gain on physical count (Memo 16)		