

Accounting Units 3 & 4

Chapter 2 The accounting equation

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Chapter 2 The accounting equation — 2A Assets, liabilities, owner's equity and the Balance Sheet

Theory

Every business, at any moment, holds a set of **resources** and owes a set of **obligations**. The whole of double-entry accounting rests on a single relationship between them — the **accounting equation**:

$$\text{Assets} = \text{Liabilities} + \text{Owner's Equity}$$

This equation is always true because of the way the three elements are defined. Once we can define and classify each element, we can set them out in a report called the **Balance Sheet**, which lists what the business controls and how those resources have been financed — partly by outside parties and partly by the owner.

Assets. An **asset** is a present economic resource **controlled** by the business as a result of **past events**; an **economic resource** is a **right** that has the **potential to produce future economic benefits**. Three tests must all be met:

- **Control** — the business can direct the use of the resource and obtain its benefits (legal ownership is the usual, but not the only, evidence of control).
- **Past events** — the transaction that gave the business control has already happened (e.g. the item was bought, or the owner contributed it).
- **Potential to produce future economic benefits** — the right could be used to earn revenue, settle a debt or be sold; that potential need not be certain, or even likely, for the asset to exist.

Cash at the bank, amounts owed by credit customers (**Accounts Receivable**), goods held for resale (**Inventory**), equipment, motor vehicles and premises are all assets.

Liabilities. A **liability** is a **present obligation** of the business to transfer an economic resource as a result of **past events**. In plain terms, it is a **debt the business owes** to an outside party, and settling it will require the business to give up an economic resource (usually cash). Amounts owed to suppliers (**Accounts Payable**), a bank overdraft and a bank loan (**Loan**) are liabilities.

Owner's equity. **Owner's equity** is the **residual interest** in the assets of the business after deducting all its liabilities — that is, the owner's claim on the assets. Rearranging the equation shows this directly:

$$\text{Owner's Equity} = \text{Assets} - \text{Liabilities}$$

Owner's equity is increased by the owner's **Capital** contributions and by **profit** earned, and decreased by the owner's **Drawings** (cash or other assets the owner takes for private use) and by any loss. Owner's equity is **not** a liability: under the **accounting entity assumption** the business is treated as separate from its owner, so the amount the business "owes back" to the owner is reported separately from what it owes to outside parties.

Classifying assets and liabilities: current vs non-current. To make the Balance Sheet useful, assets and liabilities are each split into **current** and **non-current**, using a **twelve-month test** based on the **next reporting period**:

- A **current asset** is reasonably expected to be **converted to cash, sold or consumed within the next 12 months**. Examples: **Bank, Accounts Receivable, Inventory**, a short-term investment and a **prepaid expense**.
- A **non-current asset** is held for use in the business **beyond the next 12 months**. Examples: **equipment, fixtures and fittings, motor vehicles** and **premises**.
- A **current liability** is expected to be **settled within the next 12 months**. Examples: **Accounts Payable**, a **bank overdraft** and the portion of a loan repayable within a year.
- A **non-current liability** is **not** due to be settled within the next 12 months. The clearest example is a long-term **Loan** (or mortgage) repayable over several years.

The same item can be classified differently in different businesses — what matters is the business's **expectation** about the resource or obligation, judged over the next reporting period. Classification does **not** change *how much* the business owns or owes in total; it changes only the **grouping**, and so the picture the report gives of the business's ability to pay its short-term debts.

The Balance Sheet. The **Balance Sheet** reports the assets, liabilities and owner's equity of the business **at a single point in time** — hence the title *Balance Sheet as at [date]* (for example, “Balance Sheet of Riverbend Cycles as at 30 June 2025”). A **classified** Balance Sheet groups the items under five headings, in this order:

1. **Current Assets**
2. **Non-Current Assets** — these two give **Total Assets**
3. **Current Liabilities**
4. **Non-Current Liabilities** — these two give **Total Liabilities**
5. **Owner's Equity**

Because owner's equity is the *residual* (Assets – Liabilities), the report must always **balance**:

$$\text{Total Assets} = \text{Total Liabilities} + \text{Owner's Equity}$$

The report uses **two money columns**: the **inner column** lists the amounts of the individual items that make up a group, and the **outer column** records each group's **sub-total** and the report's **totals**. A group with a single item is written straight into the outer column.

Worked model. Camberwell Cricket Supplies (owner P. Ellis) has, at 30 June 2025: Bank \$2 000, Accounts Receivable \$1 000, Inventory \$5 000, Store equipment \$4 000, Motor vehicle \$12 000, Accounts Payable \$3 000, a Loan from Ashwood Bank of \$9 000 (repayable over 5 years) and Capital of \$12 000. Classifying each item and setting it out gives:

Balance Sheet of Camberwell Cricket Supplies as at 30 June 2025

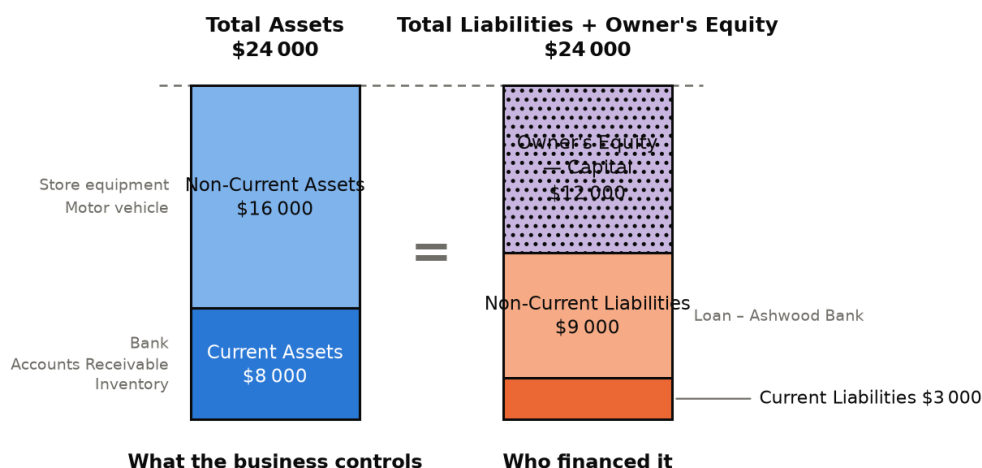
	\$	\$
Current Assets		
Bank	2 000	
Accounts Receivable	1 000	
Inventory	5 000	8 000
Non-Current Assets		
Store equipment	4 000	
Motor vehicle	12 000	16 000
Total Assets		24 000
Current Liabilities		
Accounts Payable		3 000
Non-Current Liabilities		
Loan – Ashwood Bank		9 000
Total Liabilities		12 000
Owner's Equity		
Capital		12 000
Total Liabilities and Owner's Equity		24 000

Total Assets (\$24 000) equal Total Liabilities plus Owner's Equity (\$12 000 + \$12 000), so the report balances. Read down the report, it tells a user that of the \$24 000 of resources the business controls, outside parties have financed \$12 000 and the owner \$12 000.

Because the two sides of the equation describe the **same** resources — once by what they are, once by who has a claim on them — they can be drawn as two bars of the same height:

Assets = Liabilities + Owner's Equity

Camberwell Cricket Supplies as at 30 June 2025



Total Assets \$24 000 = Total Liabilities \$12 000 + Owner's Equity \$12 000: outside parties financed half the resources and the owner the other half.

Camberwell Cricket Supplies at 30 June 2025 — total assets against total liabilities plus owner's equity

Both bars are built from the same dollar figures through the same scale, so they finish level because the report balances, not because they were drawn that way. Read across, the \$24 000 of resources the business controls has been financed \$12 000 by outside parties and \$12 000 by the owner — which is what it means to call owner's equity the **residual**.

Worked examples (scaffolded)

Example 1 — classifying a list of items and preparing a classified Balance Sheet

Riverbend Cycles (owner T. Okafor) is a bicycle retailer. At 30 June 2025 the business had the following items (in no particular order): Delivery van \$27 000; Bank \$4 000; Accounts Payable \$5 000; Inventory \$15 500; Loan – Coastline Bank \$23 000 (repayable over 6 years); Shop fittings \$9 000; Accounts Receivable \$2 500; Capital \$30 000. Prepare a classified Balance Sheet.

Working	Comment
Sort each item: Bank, Accounts Receivable and Inventory are current assets (cash or expected to become cash within 12 months).	Apply the 12-month test to each asset before writing anything down.
Shop fittings and the Delivery van are non-current assets (held for use beyond 12 months).	Assets used to run the business, not resold, are non-current.
Current Assets = \$4 000 + \$2 500 + \$15 500 = \$22 000 ; Non-Current Assets = \$9 000 + \$27 000 = \$36 000 .	Each group is added in the inner column; the sub-total goes to the outer column.
Total Assets = \$22 000 + \$36 000 = \$58 000 .	The two asset sub-totals give Total Assets.
Accounts Payable is a current liability ; the Loan (6 years) is a non-current liability . Total Liabilities = \$5 000 + \$23 000 = \$28 000 .	The loan is due beyond 12 months, so it is non-current.
Capital \$30 000 is owner's equity . Check: \$28 000 + \$30 000 = \$58 000 = Total Assets.	The report balances because Owner's Equity = Assets – Liabilities.

Balance Sheet of Riverbend Cycles as at 30 June 2025

\$	\$
Current Assets	

	\$	\$
Bank	4 000	
Accounts Receivable	2 500	
Inventory	15 500	22 000
Non-Current Assets		
Shop fittings	9 000	
Delivery van	27 000	36 000
Total Assets		58 000
Current Liabilities		
Accounts Payable		5 000
Non-Current Liabilities		
Loan – Coastline Bank		23 000
Total Liabilities		28 000
Owner's Equity		
Capital		30 000
Total Liabilities and Owner's Equity		58 000

Example 2 — a Balance Sheet where owner's equity is broken into its parts

Harbourview Timber (owner L. Petrakis) had these balances at 30 June 2025: Bank \$6 200; Inventory \$19 000; Office equipment \$12 000; Accounts Payable \$6 500; Accounts Receivable \$4 800; Motor vehicle \$33 000; Loan – Delta Finance \$24 500 (repayable over 5 years); Prepaid rent \$1 000. During the year the business earned a **net profit** of \$11 000, the owner had contributed **capital** of \$42 000 and had taken **drawings** of \$8 000. Prepare a classified Balance Sheet.

Working	Comment
Current Assets = Bank \$6 200 + Accounts Receivable \$4 800 + Inventory \$19 000 + Prepaid rent \$1 000 = \$31 000 .	Prepaid rent is a current asset — a future benefit to be consumed within 12 months.
Non-Current Assets = Office equipment \$12 000 + Motor vehicle \$33 000 = \$45 000 ; Total Assets = \$76 000 .	Two groups of assets, then their combined total.
Current Liabilities = Accounts Payable \$6 500 ; Non-Current Liabilities = Loan \$24 500 ; Total Liabilities = \$31 000 .	The 5-year loan is non-current.
Owner's Equity = Capital \$42 000 add Net Profit \$11 000 less Drawings \$8 000 = \$45 000 .	Profit increases the owner's claim; drawings reduce it. Show each part in the inner column.
Check: Total Liabilities \$31 000 + Owner's Equity \$45 000 = \$76 000 = Total Assets.	The report balances.

Balance Sheet of Harbourview Timber as at 30 June 2025

	\$	\$
Current Assets		
Bank	6 200	
Accounts Receivable	4 800	
Inventory	19 000	
Prepaid rent	1 000	31 000
Non-Current Assets		

	\$	\$
Office equipment	12 000	
Motor vehicle	33 000	45 000
Total Assets		76 000
Current Liabilities		
Accounts Payable		6 500
Non-Current Liabilities		
Loan – Delta Finance		24 500
Total Liabilities		31 000
Owner's Equity		
Capital	42 000	
add: Net Profit	11 000	
less: Drawings	(8 000)	45 000
Total Liabilities and Owner's Equity		76 000

Worked examples (unscaffolded)

Example 3 — preparing a classified Balance Sheet

Alpine Joinery (owner R. Nguyen) had the following at 31 December 2025: Accounts Receivable \$7 200; Bank \$5 500; Tools & equipment \$14 000; Loan – Summit Bank \$26 000 (repayable over 7 years); Inventory \$16 300; Accounts Payable \$8 000; Motor vehicle \$27 000; Capital \$36 000.

Current Assets = \$5 500 + \$7 200 + \$16 300 = \$29 000; Non-Current Assets = \$14 000 + \$27 000 = \$41 000, so Total Assets = \$70 000. Accounts Payable is current and the loan is non-current, giving Total Liabilities of \$34 000. Owner's equity is Capital \$36 000, and \$34 000 + \$36 000 = \$70 000.

Balance Sheet of Alpine Joinery as at 31 December 2025

	\$	\$
Current Assets		
Bank	5 500	
Accounts Receivable	7 200	
Inventory	16 300	29 000
Non-Current Assets		
Tools & equipment	14 000	
Motor vehicle	27 000	41 000
Total Assets		70 000
Current Liabilities		
Accounts Payable		8 000
Non-Current Liabilities		
Loan – Summit Bank		26 000
Total Liabilities		34 000
Owner's Equity		
Capital		36 000
Total Liabilities and Owner's Equity		70 000

∴ the Balance Sheet balances, with Total Assets of \$70 000 financed by \$34 000 of liabilities and \$36 000 of owner's equity.

Example 4 — finding a missing figure using $A = L + OE$

Coburg Catering (owner S. Halim) had the following at 30 June 2025, but the owner's **Capital** figure had been lost: Bank \$2 900; Accounts Receivable \$3 600; Inventory \$8 500; Kitchen equipment \$21 000; Delivery vehicle \$24 000; Accounts Payable \$6 000; Loan – Metro Finance \$18 000. Calculate the Capital.

Total Assets = \$2 900 + \$3 600 + \$8 500 + \$21 000 + \$24 000 = \$60 000. Total Liabilities = \$6 000 + \$18 000 = \$24 000. Because Owner's Equity = Assets – Liabilities, Capital = \$60 000 – \$24 000.

∴ Capital = **\$36 000**.

Practice questions — scaffolded

Question 1

Seabreeze Surf (owner M. Farrelly) is a surf-shop. At 30 June 2025 the business held: Bank; Inventory; Accounts Receivable; Surfboard racks (shop fittings); a Delivery van; Accounts Payable; a Loan from Bayside Bank repayable over 5 years; Capital; and the owner's Drawings for the year.

- Classify each of the nine items as a current asset, non-current asset, current liability, non-current liability or owner's equity.
- State the accounting equation. If the business's total assets are \$48 000 and its total liabilities are \$19 000, calculate owner's equity.
- Explain why Inventory is classified as a current asset.

Question 2

Kingsley Kitchens (owner D. Osei) had these balances at 30 June 2025: Bank \$3 200; Accounts Receivable \$4 100; Inventory \$11 700; Showroom fittings \$16 000; Motor vehicle \$25 000; Accounts Payable \$7 000; Loan – Riverside Bank \$20 000 (repayable over 8 years); Capital \$33 000.

- Prepare a classified Balance Sheet as at 30 June 2025.
- State the total assets of the business.
- State the relationship the Balance Sheet demonstrates between the three accounting elements.

Question 3

Tamar Electrical (owner G. Bianchi) has total assets of \$72 000 at 30 June 2025. Its only liabilities are Accounts Payable of \$9 500 and a Loan from Northbridge Bank of \$28 500 (repayable over 6 years).

- State the accounting equation.
- Calculate the total liabilities.
- Calculate the owner's Capital.

Question 4

A trainee prepared the Balance Sheet of Willow Cafe (owner A. Ricci) at 30 June 2025. The trainee listed the **Espresso machine \$8 000** under *Current Assets*, and the **Loan – Delta Bank \$6 000** (repayable over 6 years) under *Current Liabilities*. All other items were correct: Bank \$2 100; Accounts Receivable \$1 900; Inventory \$5 000; Café fit-out \$11 000; Accounts Payable \$4 000; Capital \$18 000.

- Identify the two mis-classified items and state the correct classification of each.
- Explain, using the 12-month test, why each item belongs in its correct category.
- State whether correcting the two errors changes Total Assets or Total Liabilities, and explain what it *does* change.

Question 5

Pelican Print (owner N. Duong) had these balances at 31 December 2025: Bank \$4 500; Accounts Receivable \$3 500; Inventory \$9 000; Printing equipment \$33 000; Accounts Payable \$6 000; Loan – Coastline Bank \$14 000 (repayable over 4 years); Capital \$30 000.

- Prepare a classified Balance Sheet as at 31 December 2025.
- State the total liabilities.
- Using the report, state whether the business's assets are financed more by the owner or by outside parties, and justify your answer with figures.

Question 6

The classified Balance Sheet of Gable Grocers (owner F. Massaro) as at 30 June 2025 shows: Current Assets \$16 000 (Bank \$1 200, Accounts Receivable \$2 800, Inventory \$12 000); Non-Current Assets \$28 000 (Shop equipment \$10 000, Motor vehicle \$18 000); Current Liabilities — Accounts Payable \$9 000; Non-Current Liabilities — Loan – Metro Finance \$15 000; Owner's Equity — Capital \$20 000.

- State the total assets and total owner's equity.
- State whether the current assets are large enough to cover the current liabilities.
- Explain, in one or two sentences, what the comparison in part b tells a user about the business's ability to pay its short-term debts.

Practice questions — unscaffolded

Question 7

Ironbark Hardware (owner J. Calderon) had these balances at 30 June 2025: Bank \$5 000; Accounts Receivable \$6 000; Inventory \$22 000; Store fittings \$13 000; Forklift \$19 000; Delivery truck \$35 000; Accounts Payable \$12 000; Loan – Summit Bank \$38 000 (repayable over 9 years); Capital \$50 000. Prepare a classified Balance Sheet as at 30 June 2025.

Question 8

Fernvale Florist (owner H. Aziz) had these balances at 30 June 2025: Accounts Receivable \$1 900; Inventory \$6 100; Prepaid insurance \$1 000; Shop fittings \$7 000; Refrigeration units \$14 000; Bank overdraft \$2 500; Accounts Payable \$4 500; Loan – Delta Finance \$11 000 (repayable over 5 years); Capital \$12 000. Prepare a classified Balance Sheet, taking care to classify the bank overdraft and the prepaid insurance correctly.

Question 9

Otway Outdoors (owner P. Vasilakis) has total liabilities of \$29 000 and owner's Capital of \$41 000 at 30 June 2025. Its assets are Bank \$4 000, Accounts Receivable \$5 500, Shop fittings \$15 500, Motor vehicle \$30 000 and **Inventory (figure missing)**. Calculate the value of the Inventory.

Question 10

Brookdale Bakery (owner C. Iversen) had the following at 31 December 2025 (in no order): Loan – Parkway Bank \$19 500 (repayable over 7 years); Bank \$2 600; Baking equipment \$22 000; Accounts Payable \$5 500; Delivery van \$21 000; Accounts Receivable \$1 400; Inventory \$8 000; Capital \$30 000. Classify each item and prepare a classified Balance Sheet as at 31 December 2025.

Question 11

A Balance Sheet of Redgum Renovations (owner T. Sarkis) at 30 June 2025 listed the **Loan – Bayside Bank \$30 000** (repayable over 8 years) under *Current Liabilities*, and a **short-term investment \$5 000** (a term deposit maturing in three months) under *Non-Current Assets*. The remaining items were correct: Bank \$3 000; Accounts Receivable \$4 000; Inventory \$6 000; Equipment \$22 000; Motor vehicle \$20 000; Accounts Payable \$5 000; Capital \$25 000.

Reclassify the two items correctly, and state the effect of the corrections on the total of Current Liabilities, the total of Current Assets, Total Liabilities and Total Assets.

Question 12

Marigold Nursery (owner E. Bello) had these balances at 30 June 2025: Bank \$4 700; Accounts Receivable \$3 300; Inventory \$12 000; Nursery equipment \$18 000; Motor vehicle \$22 000; Accounts Payable \$7 000; Loan – Riverside Bank \$10 000 (repayable over 4 years). During the year the business earned a net profit of \$14 000; the owner's opening capital was \$38 000 and drawings for the year were \$9 000. Prepare a classified Balance Sheet, showing owner's equity broken into its parts.

Question 13

Clearwater Plumbing (owner R. Okonkwo) has total assets of \$83 000 and owner's Capital of \$45 000 at 30 June 2025. Its only current liability is Accounts Payable of \$8 000; its only other liability is a long-term loan from Harbour Bank. Calculate the amount of the loan, and state how it is classified.

Question 14

The classified Balance Sheet of Sandalwood Spa (owner V. Petrov) as at 30 June 2025 shows: Current Assets \$10 000 (Bank \$3 000, Accounts Receivable \$2 000, Inventory \$5 000); Non-Current Assets \$40 000 (Spa equipment \$26 000, Fit-out \$14 000); Current Liabilities \$12 000 (Bank overdraft \$4 000, Accounts Payable \$8 000); Non-Current Liabilities — Loan – Metro Finance \$18 000; Owner's Equity — Capital \$20 000. Interpret the report: comment on whether the business can meet its short-term obligations from its current assets, and on whether the business is financed more by outside parties or by the owner.

Question 15

Tallowwood Furniture (owner K. Adeyemi) had these balances at 31 December 2025: Bank \$6 800; Accounts Receivable \$8 200; Inventory \$25 000; Workshop machinery \$30 000; Motor vehicle \$28 000; Accounts Payable \$13 000; Loan – Coastline Bank \$35 000 (repayable over 10 years); Capital \$50 000. Prepare a classified Balance Sheet as at 31 December 2025.

Question 16

A trainee prepared the Balance Sheet of Glenroy Motors (owner B. Nasser) at 30 June 2025 and made two element errors: the owner's **Drawings \$7 000** were listed as a *Current Asset*, and the owner's **Capital \$39 000** was listed under *Non-Current Liabilities*. The remaining items were correct: Bank \$3 000; Accounts Receivable \$4 000; Inventory \$9 000; Workshop equipment \$20 000; Hoist & tools \$14 000; Accounts Payable \$6 000; Loan – Bayside Bank \$12 000 (repayable over 6 years). Explain why each item is mis-classified, state the correct treatment of each, and calculate the corrected Total Assets, Total Liabilities and Owner's Equity.

Question 17

Whitfield Winery (owner L. Moretti) had these balances at 30 June 2025: Bank \$7 000; Accounts Receivable \$9 000; Inventory \$34 000; Prepaid rent \$2 000; Winery equipment \$40 000; Motor vehicle \$26 000; Accounts Payable \$11 000; Short-term loan – Delta Finance \$7 000 (repayable within 12 months); Loan – Summit Bank \$40 000 (repayable over 9 years). The owner's opening capital was \$52 000, net profit for the year was \$16 000 and drawings were \$8 000. Prepare a classified Balance Sheet, showing owner's equity broken into its parts and classifying each liability correctly.

Question 18

Two motor-vehicle repairers, Aspendale Autos and Brighton Autos, each report Total Assets of \$80 000 at 30 June 2025. Aspendale Autos reports Total Liabilities of \$55 000 and Owner's Equity of \$25 000; Brighton Autos reports Total Liabilities of \$20 000 and Owner's Equity of \$60 000. Using the accounting equation, explain which business relies more heavily on outside parties to finance its assets, and discuss one implication of this difference for a user assessing the two businesses.

Answers

1.
 - b. $OE = \$29\,000$
2.
 - b. Total assets \$60 000 c. $Assets = Liabilities + Owner's\ Equity$
3.
 - b. \$38 000 c. Capital \$34 000
4.
 - a. Espresso machine → non-current asset; Loan → non-current liability c. Neither total changes
5.
 - b. \$20 000 c. Owner ($OE\ \$30\,000 > liabilities\ \$20\,000$)
6.
 - a. Total assets \$44 000; owner's equity \$20 000 b. Yes ($CA\ \$16\,000 > CL\ \$9\,000$)
7. Total assets \$100 000; balances ($L\ \$50\,000 + OE\ \$50\,000$)
8. Total assets \$30 000; balances ($L\ \$18\,000 + OE\ \$12\,000$)
9. Inventory \$15 000
10. Total assets \$55 000; balances ($L\ \$25\,000 + OE\ \$30\,000$)
11. Current liabilities $-\$30\,000$ (to \$5 000); current assets $+\$5\,000$ (to \$18 000); Total Liabilities and Total Assets unchanged (\$35 000 and \$60 000)
12. Total assets \$60 000; owner's equity \$43 000 ($Capital\ \$38\,000 + Net\ Profit\ \$14\,000 - Drawings\ \$9\,000$)
13. Loan \$30 000; non-current liability
14. $CA\ \$10\,000 < CL\ \$12\,000$ (cannot cover short-term debts from current assets); liabilities $\$30\,000 > OE\ \$20\,000$ (financed more by outside parties)
15. Total assets \$98 000; balances ($L\ \$48\,000 + OE\ \$50\,000$)
16. Total assets \$50 000; Total liabilities \$18 000; owner's equity \$32 000 ($Capital\ \$39\,000 - Drawings\ \$7\,000$)
17. Total assets \$118 000; owner's equity \$60 000 ($Capital\ \$52\,000 + Net\ Profit\ \$16\,000 - Drawings\ \$8\,000$)
18. Aspendale relies more on outside parties (liabilities \$55 000 vs \$20 000); see solutions

Fully-worked solutions

Question 1

Item	Classification
Bank	Current asset
Inventory	Current asset
Accounts Receivable	Current asset
Surfboard racks (shop fittings)	Non-current asset
Delivery van	Non-current asset
Accounts Payable	Current liability
Loan – Bayside Bank (5 years)	Non-current liability
Capital	Owner's equity
Drawings	Owner's equity (a <i>decrease</i> in owner's equity)

- b. The accounting equation is **Assets = Liabilities + Owner's Equity**. $Owner's\ Equity = Assets - Liabilities = \$48\,000 - \$19\,000 = \$29\,000$.
- c. Inventory is held for **resale** and is reasonably expected to be **sold (converted to cash) within the next 12 months**, so it meets the test for a **current asset**.

Question 2

Balance Sheet of Kingsley Kitchens as at 30 June 2025

	\$	\$
Current Assets		
Bank	3 200	
Accounts Receivable	4 100	
Inventory	11 700	19 000
Non-Current Assets		
Showroom fittings	16 000	
Motor vehicle	25 000	41 000
Total Assets		60 000
Current Liabilities		
Accounts Payable		7 000
Non-Current Liabilities		
Loan – Riverside Bank		20 000
Total Liabilities		27 000
Owner's Equity		
Capital		33 000
Total Liabilities and Owner's Equity		60 000

- b. Total assets = **\$60 000**.
- c. The report demonstrates that **Assets = Liabilities + Owner's Equity** (\$60 000 = \$27 000 + \$33 000): the resources controlled equal the claims against them by outside parties and the owner.

Question 3

- a. **Assets = Liabilities + Owner's Equity.**
- b. Total liabilities = Accounts Payable \$9 500 + Loan \$28 500 = **\$38 000**.
- c. Capital = Assets – Liabilities = \$72 000 – \$38 000 = **\$34 000**.

Question 4

- a. The **Espresso machine \$8 000** should be a **non-current asset**, and the **Loan – Delta Bank \$6 000** should be a **non-current liability**.
- b. The espresso machine is equipment the café will **use to earn revenue for longer than the next 12 months**, so it fails the current test and is non-current. The loan is **repayable over 6 years**, so it is **not due to be settled within the next 12 months** and is a non-current liability.
- c. Correcting the errors does **not** change Total Assets (\$28 000) or Total Liabilities (\$10 000), because both items were already on the correct side of the report — an asset is still an asset, a liability still a liability. What changes is the **current/non-current split**: Current Assets fall from \$17 000 to the correct **\$9 000**, and Current Liabilities fall from \$10 000 to the correct **\$4 000**. This matters because the split is what a user relies on to judge whether the business can pay its short-term debts.

Question 5

Balance Sheet of Pelican Print as at 31 December 2025

	\$	\$
Current Assets		
Bank	4 500	
Accounts Receivable	3 500	
Inventory	9 000	17 000

	\$	\$
Non-Current Assets		
Printing equipment		33 000
Total Assets		50 000
Current Liabilities		
Accounts Payable		6 000
Non-Current Liabilities		
Loan – Coastline Bank		14 000
Total Liabilities		20 000
Owner's Equity		
Capital		30 000
Total Liabilities and Owner's Equity		50 000

b. Total liabilities = **\$20 000**.

c. The assets are financed **more by the owner**: owner's equity is **\$30 000** while total liabilities are only **\$20 000**, so the owner has provided the larger share of the \$50 000 of assets.

Question 6

a. Total assets = \$16 000 + \$28 000 = **\$44 000**; total owner's equity = **\$20 000**.

b. **Yes** — Current Assets of **\$16 000** exceed Current Liabilities of **\$9 000**.

c. Because the current assets (which are cash or will become cash within 12 months) are almost twice the current liabilities, the business appears able to **pay its short-term debts as they fall due** without having to sell non-current assets or raise new finance.

Question 7

Balance Sheet of Ironbark Hardware as at 30 June 2025

	\$	\$
Current Assets		
Bank	5 000	
Accounts Receivable	6 000	
Inventory	22 000	33 000
Non-Current Assets		
Store fittings	13 000	
Forklift	19 000	
Delivery truck	35 000	67 000
Total Assets		100 000
Current Liabilities		
Accounts Payable		12 000
Non-Current Liabilities		
Loan – Summit Bank		38 000
Total Liabilities		50 000
Owner's Equity		
Capital		50 000
Total Liabilities and Owner's Equity		100 000

Question 8

The **bank overdraft** is a **current liability** (the business owes the bank and must repay on demand); **prepaid insurance** is a **current asset** (cover already paid for, to be consumed within 12 months).

Balance Sheet of Fernvale Florist as at 30 June 2025

	\$	\$
Current Assets		
Accounts Receivable	1 900	
Inventory	6 100	
Prepaid insurance	1 000	9 000
Non-Current Assets		
Shop fittings	7 000	
Refrigeration units	14 000	21 000
Total Assets		30 000
Current Liabilities		
Bank overdraft	2 500	
Accounts Payable	4 500	7 000
Non-Current Liabilities		
Loan – Delta Finance		11 000
Total Liabilities		18 000
Owner's Equity		
Capital		12 000
Total Liabilities and Owner's Equity		30 000

Question 9

By the accounting equation, Total Assets = Total Liabilities + Owner's Equity = \$29 000 + \$41 000 = \$70 000. The known assets total \$4 000 + \$5 500 + \$15 500 + \$30 000 = \$55 000, so:

Inventory = \$70 000 – \$55 000 = **\$15 000**.

Question 10

Balance Sheet of Brookdale Bakery as at 31 December 2025

	\$	\$
Current Assets		
Bank	2 600	
Accounts Receivable	1 400	
Inventory	8 000	12 000
Non-Current Assets		
Baking equipment	22 000	
Delivery van	21 000	43 000
Total Assets		55 000
Current Liabilities		
Accounts Payable		5 500
Non-Current Liabilities		

	\$	\$
Loan – Parkway Bank		19 500
Total Liabilities		25 000
Owner's Equity		
Capital		30 000
Total Liabilities and Owner's Equity		55 000

Question 11

The **Loan – Bayside Bank \$30 000** is repayable over 8 years, so it is a **non-current liability**, not a current one. The **short-term investment \$5 000** matures in three months (within 12 months), so it is a **current asset**, not a non-current one. Correcting both:

- Current Liabilities **fall by \$30 000**, from \$35 000 to **\$5 000** (the \$30 000 loan moves to Non-Current Liabilities).
- Current Assets **rise by \$5 000**, from \$13 000 to **\$18 000** (the \$5 000 investment moves from Non-Current Assets).
- **Total Liabilities (\$35 000) and Total Assets (\$60 000) are unchanged** — each item stayed on its own side of the report, so only the current/non-current groupings changed. The report still balances (\$60 000 = \$35 000 + \$25 000).

Question 12

Owner's equity = Capital \$38 000 + Net Profit \$14 000 – Drawings \$9 000 = \$43 000.

Balance Sheet of Marigold Nursery as at 30 June 2025

	\$	\$
Current Assets		
Bank	4 700	
Accounts Receivable	3 300	
Inventory	12 000	20 000
Non-Current Assets		
Nursery equipment	18 000	
Motor vehicle	22 000	40 000
Total Assets		60 000
Current Liabilities		
Accounts Payable		7 000
Non-Current Liabilities		
Loan – Riverside Bank		10 000
Total Liabilities		17 000
Owner's Equity		
Capital	38 000	
add: Net Profit	14 000	
less: Drawings	(9 000)	43 000
Total Liabilities and Owner's Equity		60 000

Question 13

Total Liabilities = Assets – Owner's Equity = \$83 000 – \$45 000 = \$38 000. The loan is the only liability other than Accounts Payable of \$8 000, so:

Loan – Harbour Bank = \$38 000 – \$8 000 = **\$30 000**, classified as a **non-current liability** (a long-term loan not due within the next 12 months).

Question 14

Short-term position. Current Assets are **\$10 000** but Current Liabilities are **\$12 000**, so the current assets are **not** large enough to cover the current liabilities. The business would be unable to settle all of its short-term obligations from its current assets alone and may face a liquidity problem unless it can raise more cash.

Financing structure. Total Liabilities are **\$30 000** while Owner's Equity is **\$20 000**, so the business is financed **more by outside parties than by the owner**. Overall the report shows a business that has balanced (Total Assets \$50 000 = \$30 000 + \$20 000) but that is carrying comparatively high short-term and total debt.

Question 15

Balance Sheet of Tallowood Furniture as at 31 December 2025

	\$	\$
Current Assets		
Bank	6 800	
Accounts Receivable	8 200	
Inventory	25 000	40 000
Non-Current Assets		
Workshop machinery	30 000	
Motor vehicle	28 000	58 000
Total Assets		98 000
Current Liabilities		
Accounts Payable		13 000
Non-Current Liabilities		
Loan – Coastline Bank		35 000
Total Liabilities		48 000
Owner's Equity		
Capital		50 000
Total Liabilities and Owner's Equity		98 000

Question 16

Drawings \$7 000 is not an asset. Drawings are amounts the owner takes out of the business for private use; they **reduce owner's equity** and are deducted within the Owner's Equity section, not shown as a current asset. **Capital \$39 000 is not a liability.** Under the **accounting entity assumption** the owner is separate from the business, so the owner's claim is reported as **owner's equity**, not among the amounts owed to outside parties.

Correct figures:

- Total Assets = Bank \$3 000 + Accounts Receivable \$4 000 + Inventory \$9 000 + Workshop equipment \$20 000 + Hoist & tools \$14 000 = **\$50 000** (the \$7 000 Drawings is removed from assets).
- Total Liabilities = Accounts Payable \$6 000 + Loan \$12 000 = **\$18 000** (the \$39 000 Capital is removed from liabilities).
- Owner's Equity = Capital \$39 000 – Drawings \$7 000 = **\$32 000**.

The corrected report balances: \$50 000 = \$18 000 + \$32 000.

Question 17

Owner's equity = Capital \$52 000 + Net Profit \$16 000 – Drawings \$8 000 = \$60 000. The short-term loan (due within 12 months) is a current liability; the Summit Bank loan (9 years) is non-current.

Balance Sheet of Whitfield Winery as at 30 June 2025

	\$	\$
Current Assets		
Bank	7 000	
Accounts Receivable	9 000	
Inventory	34 000	
Prepaid rent	2 000	52 000
Non-Current Assets		
Winery equipment	40 000	
Motor vehicle	26 000	66 000
Total Assets		118 000
Current Liabilities		
Accounts Payable	11 000	
Short-term loan – Delta Finance	7 000	18 000
Non-Current Liabilities		
Loan – Summit Bank		40 000
Total Liabilities		58 000
Owner's Equity		
Capital	52 000	
add: Net Profit	16 000	
less: Drawings	(8 000)	60 000
Total Liabilities and Owner's Equity		118 000

Question 18

For each business, Assets = Liabilities + Owner's Equity:

- **Aspendale Autos:** \$80 000 = \$55 000 + \$25 000. Outside parties have financed \$55 000 of the \$80 000 of assets — about 69%.
- **Brighton Autos:** \$80 000 = \$20 000 + \$60 000. Outside parties have financed only \$20 000 — about 25%.

Aspendale Autos relies more heavily on outside parties to finance its assets: its liabilities (\$55 000) are more than double the owner's equity (\$25 000), whereas Brighton's owner has provided three times as much finance as its outside parties. One implication for a user is **stability and risk**: a business funded mainly by liabilities (Aspendale) must meet larger fixed repayment and interest commitments regardless of how it trades, so it is more exposed if profits or cash flows fall. Brighton, funded mainly by the owner, has a larger buffer of owner's equity and is under less pressure from outside creditors, and so would generally be judged the more financially stable of the two.

Chapter 2 The accounting equation — 2B Classification and double-entry accounting

Theory

The **Balance Sheet** reports what a business controls and owes at a single point in time, organised around the **accounting equation**:

$$\text{Assets} = \text{Liabilities} + \text{Owner's equity}$$

Assets are present economic resources controlled by the business as a result of past events — an economic resource being a right that has the potential to produce future economic benefits. **Liabilities** are present obligations of the business to transfer an economic resource as a result of past events. **Owner's equity** is the residual interest in the assets of the business after deducting its liabilities — the owner's claim on the business, built up by **Capital** contributions and profits and reduced by **Drawings** and losses.

Classification within the Balance Sheet. So that a reader can judge the business's position, each asset and liability is **classified** by how soon it is expected to be converted to cash or settled — a distinction that rests on the **period assumption** and the **going concern** assumption:

Classification	Definition	Examples
Current assets	Assets expected to be converted to cash, sold or consumed within 12 months	Bank, Accounts Receivable, Inventory
Non-current assets	Assets held for use in the business for more than 12 months	Equipment, Vehicles, Premises
Current liabilities	Obligations expected to be settled within 12 months	Accounts Payable, bank overdraft, the current portion of a loan
Non-current liabilities	Obligations not due to be settled for more than 12 months	Loan, Mortgage
Owner's equity	The owner's residual claim = Capital + profit – Drawings – losses	Capital, Drawings

The equation must hold **at every moment**, not just at balance day. Because a business records many transactions between one Balance Sheet and the next, we need a way to check that each transaction leaves the equation **in balance**. That check is the subject of this section.

The twofold effect of a transaction. Every **transaction** has an effect on **at least two** items in the accounting equation. This is not a rule we impose — it follows directly from the equation itself. If a single transaction changed only **one** item, the two sides of the equation would no longer be equal, which is impossible for a true statement of position. So a transaction must either:

- **change two items on opposite sides** by the same amount (for example, an asset and a liability both rise), or
- **change two items on the same side** in opposite directions (for example, one asset rises while another asset falls), leaving the totals for the two sides equal.

Formally, for the equation to stay balanced after a transaction, the **change** in each element must satisfy:

$$\Delta \text{Assets} = \Delta \text{Liabilities} + \Delta \text{Owner's equity}$$

where Δ means “the change in”. A useful way to see the twofold effect is a small **effect-on-the-equation** table, with a column for each element. An increase is shown as a + amount and a decrease as a – amount; if the columns satisfy $\Delta A = \Delta L + \Delta OE$, the equation still balances. Consider an owner contributing \$40 000 cash to start a business:

Item	Assets \$	Liabilities \$	Owner's equity \$
Bank	+40 000		
Capital			+40 000

Assets rise by \$40 000 and owner's equity rises by \$40 000, so $\Delta A = \Delta L + \Delta OE$: $+\$40\,000 = \$0 + \$40\,000$ — the equation balances. Notice that revenues and expenses reach the equation **through owner's equity**: earning cash revenue increases owner's equity (through profit), and paying a cash expense decreases it. Contributions of **Capital** increase owner's equity; **Drawings** decrease it.

Double-entry accounting. Because every transaction has (at least) two effects that keep the equation in balance, the system of recording built on this idea is called **double-entry accounting**. “Double entry” simply means that each transaction is recorded in **two or more places**, in amounts that keep the accounting equation balanced. In this section we analyse the twofold effect using the equation directly; in Chapter 3 the same two effects are recorded formally as **debit** and **credit** entries in ledger accounts. The logic is identical — the twofold effect you analyse here is exactly what double-entry recording captures later.

Worked model. *Delgado Detailing*, a car-detailing service owned by M. Delgado, records three transactions in September 2025:

- 1 Sep — the owner contributed **\$40 000** cash to start the business.
- 3 Sep — the business bought detailing **equipment** for **\$14 000** cash.
- 6 Sep — the business bought a **van** for **\$28 000**, borrowing the full amount from Horizon Finance. No part of the loan falls due within the next 12 months.

Analysing each transaction's twofold effect:

Transaction	Assets \$	Liabilities \$	Owner's equity \$
1 Sep — Bank +, Capital +	+40 000		+40 000
3 Sep — Equipment +, Bank —	+14 000 – 14 000 = 0		
6 Sep — Van +, Loan +	+28 000	+28 000	

After the three transactions the business holds **Bank \$26 000**, **Equipment \$14 000** and a **Van \$28 000** — total **assets \$68 000** — owes a **Loan \$28 000** (non-current liability) and has **Capital \$40 000**. $A = L + OE$: $\$68\,000 = \$28\,000 + \$40\,000$. Each transaction kept the equation balanced, and each changed at least two items — the twofold effect at work.

Worked examples (scaffolded)

Example 1 — analysing the twofold effect of four transactions

Marisol Mobile Vet, owned by P. Marisol, records the following in April 2025. The business began with no assets or liabilities. Analyse the effect of each transaction on the accounting equation and confirm the equation balances.

- 1 Apr — the owner contributed \$35 000 cash.
- 4 Apr — bought veterinary equipment for \$9 000 cash.
- 8 Apr — paid \$1 500 cash for rent.
- 12 Apr — received \$2 800 cash for consultations.

Working	Comment
1 Apr: Bank (asset) increases \$35 000; Capital (owner's equity) increases \$35 000. $\Delta A +\$35\,000 = \Delta L \$0 + \Delta OE +\$35\,000$.	An owner's cash contribution raises an asset and owner's equity — two items on opposite sides.
4 Apr: Equipment (asset) increases \$9 000; Bank (asset) decreases \$9 000. $\Delta A = +\$9\,000 - \$9\,000 = \$0$.	Buying an asset for cash swaps one asset for another — two items on the same side , so total assets are unchanged.
8 Apr: Bank (asset) decreases \$1 500; owner's equity decreases \$1 500 (the rent expense reduces profit). $\Delta A -$	A cash expense reduces an asset and reduces owner's equity through profit.

Working	Comment
$\$1\,500 = \Delta L \$0 + \Delta OE - \$1\,500$.	
12 Apr: Bank (asset) increases \$2 800; owner's equity increases \$2 800 (the revenue adds to profit). $\Delta A + \$2\,800 = \Delta L \$0 + \Delta OE + \$2\,800$.	Cash revenue raises an asset and raises owner's equity through profit.

The effect on the equation, transaction by transaction:

Transaction	Assets \$	Liabilities \$	Owner's equity \$
1 Apr — Bank +, Capital +	+35 000		+35 000
4 Apr — Equipment +, Bank —	+9 000 – 9 000 = 0		
8 Apr — Bank –, Rent expense	–1 500		–1 500
12 Apr — Bank +, revenue	+2 800		+2 800

After the four transactions: **Bank \$27 300** and **Equipment \$9 000** give total **assets \$36 300**; there are no **liabilities**; **owner's equity is \$36 300** (Capital \$35 000 – rent \$1 500 + revenue \$2 800). **A = L + OE:** $\$36\,300 = \$0 + \$36\,300$ — the equation balances.

Example 2 — a loan, drawings, and an asset bought partly on credit

Ridgeway Removals, owned by T. Ridgeway, began June 2025 with **Bank \$20 000**, a **Truck \$40 000**, a **Loan – Delta Bank \$15 000** and **Capital \$45 000** (so $\$60\,000 = \$15\,000 + \$45\,000$). Analyse the effect of each June transaction and confirm the equation balances.

- 5 Jun — borrowed a further \$10 000 cash from Delta Bank.
- 12 Jun — the owner withdrew \$3 000 cash for private use.
- 20 Jun — bought a trailer for \$8 000, paying \$5 000 cash and borrowing the remaining \$3 000 from Delta Bank.

Working	Comment
5 Jun: Bank (asset) increases \$10 000; Loan (liability) increases \$10 000. $\Delta A + \$10\,000 = \Delta L + \$10\,000 + \Delta OE \$0$.	Taking a loan raises an asset and a liability — two items on opposite sides.
12 Jun: Bank (asset) decreases \$3 000; owner's equity decreases \$3 000 (Drawings). $\Delta A - \$3\,000 = \Delta L \$0 + \Delta OE - \$3\,000$.	Drawings reduce an asset and reduce owner's equity — the owner takes value out of the business.
20 Jun: Trailer (asset) increases \$8 000; Bank (asset) decreases \$5 000; Loan (liability) increases \$3 000. $\Delta A = +\$8\,000 - \$5\,000 = +\$3\,000$; $\Delta L = +\$3\,000$.	This transaction affects three items — proof that the twofold effect is a <i>minimum</i> , not a maximum.

Transaction	Assets \$	Liabilities \$	Owner's equity \$
5 Jun — Bank +, Loan +	+10 000	+10 000	
12 Jun — Bank –, Drawings	–3 000		–3 000
20 Jun — Trailer +, Bank –, Loan +	+8 000 – 5 000 = +3 000	+3 000	

After June: **Bank \$22 000**, **Truck \$40 000** and **Trailer \$8 000** give total assets **\$70 000**; the **Loan – Delta Bank is \$28 000** (\$15 000 + \$10 000 + \$3 000); **owner's equity is \$42 000** (Capital \$45 000 – Drawings \$3 000). **A = L + OE**: $\$70\,000 = \$28\,000 + \$42\,000$ — the equation balances.

Worked examples (unscaffolded)

Example 3 — a non-cash contribution and a loan repayment

Novak Landscaping records two transactions. First, the owner contributed a **computer valued at \$3 000** to the business. Second, the business repaid **\$4 000** of its bank loan in cash. Analyse the effect of each transaction on the accounting equation.

The contribution increases the asset Computer by \$3 000 and increases owner's equity (Capital) by \$3 000: $\Delta A +\$3\,000 = \Delta L \$0 + \Delta OE +\$3\,000$ — an asset and owner's equity rise together, so no cash changes hands but the equation still balances. The repayment decreases the asset Bank by \$4 000 and decreases the liability Loan by \$4 000: $\Delta A -\$4\,000 = \Delta L -\$4\,000 + \Delta OE \$0$ — an asset and a liability fall together.

$\therefore$ each transaction changes exactly two items and keeps the accounting equation in balance.

Example 4 — classification and the twofold effect

Ashford Bakery records two transactions. First, it bought a commercial **oven for \$16 000 cash**. Second, it took out a **\$20 000 loan**, received in cash and repayable in full in four years' time. Analyse each transaction's effect on the equation, identifying the **classification** of each item that changes.

Buying the oven for cash increases the **non-current asset** Baking equipment by \$16 000 and decreases the **current asset** Bank by \$16 000: $\Delta A = +\$16\,000 - \$16\,000 = \$0$. Total assets are unchanged — only their **classification** shifts, from a current asset (cash) to a non-current asset (equipment). Taking the loan increases the **current asset** Bank by \$20 000 and increases a **non-current liability** (Loan) by \$20 000 — non-current because no part of the \$20 000 falls due within the next 12 months: $\Delta A +\$20\,000 = \Delta L +\$20\,000 + \Delta OE \$0$.

$\therefore$ both transactions keep the equation in balance; the first changes only the composition of assets, while the second changes items on opposite sides of the equation.

Practice questions — scaffolded

Question 1

On 1 March 2025, R. Halloran started a photography business by contributing \$28 000 cash. On 4 March the business bought camera equipment for \$7 500 cash.

- For each transaction, state the two items that change and by how much.
- Complete an effect-on-the-equation table (columns Assets / Liabilities / Owner's equity) for each transaction.
- Confirm that the accounting equation balances after both transactions, showing $A = L + OE$.

Question 2

Brindle Bookkeeping had **Bank \$12 000** and **Capital \$12 000** on 1 May 2025. On 3 May it paid \$900 cash for advertising; on 7 May it received \$4 200 cash for services provided.

- State the two items that change in each transaction and the direction of each change.
- Complete an effect-on-the-equation table for each transaction.
- Confirm the accounting equation balances after both transactions.

Question 3

Copperfield Cafe began 1 June 2025 with **Bank \$18 000**, **Equipment \$22 000**, a **Loan – United Bank \$10 000** and **Capital \$30 000**. On 5 June it borrowed a further \$8 000 cash from United Bank; on 15 June it bought a coffee machine for \$6 000, borrowing the full amount from United Bank.

- State the two items that change in each transaction and by how much.
- Complete an effect-on-the-equation table for each transaction.
- Confirm the accounting equation balances after both transactions.

Question 4

Delacroix Design began 1 July 2025 with **Bank \$9 000**, **Office equipment \$15 000**, a **Loan – Metro Finance \$6 000** and **Capital \$18 000**. On 6 July the owner withdrew \$2 000 cash for private use; on 10 July the business repaid \$3 000 of the loan in cash.

- State the two items that change in each transaction and the direction of each change.
- Complete an effect-on-the-equation table for each transaction.
- Confirm the accounting equation balances after both transactions.

Question 5

On 1 August 2025 the owner started *Everdeen Electrical* by contributing **\$25 000 cash** and a **work van valued at \$18 000** in a single transaction. On 9 August the business bought electrical tools for \$5 000 cash.

- Classify each item that changes as a current asset, a non-current asset, a liability or owner's equity.
- Complete an effect-on-the-equation table for each transaction.
- Confirm the accounting equation balances after both transactions.

Question 6

On 12 September 2025, *Fairhaven Fitness* bought gym equipment for \$11 000, paying \$4 000 cash and borrowing the remaining \$7 000 from Summit Bank.

- State the items that change and by how much.
- Complete an effect-on-the-equation table and confirm $\Delta A = \Delta L + \Delta OE$ for this transaction.
- Explain why this transaction — and, indeed, every transaction — must affect at least two items for the accounting equation to remain balanced.

Practice questions — unscaffolded

Question 7

On 1 October 2025, J. Whitlock contributed \$50 000 cash to start a consulting business. Analyse the effect of this transaction on the accounting equation, stating the items that change and by how much, and confirm the equation balances.

Question 8

Larkspur Florist bought a delivery scooter for \$6 500 cash. Analyse the effect of this transaction on the accounting equation.

Question 9

Meridian Music paid \$1 100 cash for rent. Analyse the effect of this transaction on the accounting equation.

Question 10

Nightingale Nursing received \$3 600 cash for services provided. Analyse the effect of this transaction on the accounting equation.

Question 11

Oakridge Joinery borrowed \$22 000 cash from Coastal Bank. Analyse the effect of this transaction on the accounting equation.

Question 12

The owner of *Pemberton Plumbing* withdrew \$2 500 cash for private use. Analyse the effect of this transaction on the accounting equation.

Question 13

Quillan Catering bought a refrigerated trailer for \$19 000, paying \$7 000 cash and financing the remaining \$12 000 with a loan from Riverton Bank. Analyse the effect on each element of the accounting equation and confirm the equation balances.

Question 14

Rosemoor Tiling repaid \$4 500 of its bank loan in cash. Analyse the effect of this transaction on the accounting equation.

Question 15

The owner of *Sable Studios* contributed a piano valued at \$9 500 to the business. Analyse the effect of this transaction on the accounting equation, and confirm the equation balances.

Question 16

The owner of *Thornbury Timber* took a workbench (a business asset) valued at \$1 300 home for private use. Analyse the effect of this transaction on the accounting equation.

Question 17

Underwood Upholstery began 1 November 2025 with **Bank \$15 000, Sewing equipment \$20 000, a Loan – Pinnacle Bank \$8 000 and Capital \$27 000**. During November:

- 4 Nov — the owner contributed a further \$5 000 cash.
- 9 Nov — bought a cutting table for \$3 500 cash.
- 16 Nov — received \$2 200 cash for services.
- 23 Nov — the owner withdrew \$1 000 cash for private use.

Analyse the effect of each transaction on the accounting equation, confirm the equation balances after each, and state the closing totals for Assets, Liabilities and Owner's equity.

Question 18

Explain, with reference to the accounting equation, why every transaction recorded by a business must have at least two effects. In your answer, refer to **one** transaction that changes items on opposite sides of the equation and **one** transaction that changes two items on the same side, and state what keeps the equation in balance in each case.

Answers

1.
 - a. Bank +\$28 000 & Capital +\$28 000; then Camera equipment +\$7 500 & Bank −\$7 500. c. A \$28 000 = L \$0 + OE \$28 000
2.
 - a. Bank −\$900 & OE −\$900 (expense); Bank +\$4 200 & OE +\$4 200 (revenue). c. A \$15 300 = L \$0 + OE \$15 300
3.
 - a. Bank +\$8 000 & Loan +\$8 000; Coffee machine +\$6 000 & Loan +\$6 000. c. A \$54 000 = L \$24 000 + OE \$30 000
4.
 - a. Bank −\$2 000 & OE −\$2 000 (Drawings); Bank −\$3 000 & Loan −\$3 000. c. A \$19 000 = L \$3 000 + OE \$16 000
5.
 - a. Bank = current asset; Van & Tools = non-current assets; Capital = owner's equity. c. A \$43 000 = L \$0 + OE \$43 000
6.
 - a. Gym equipment +\$11 000, Bank −\$4 000, Loan +\$7 000. b. $\Delta A + \$7\,000 = \Delta L + \$7\,000 + \Delta OE \$0$
7. Bank (asset) +\$50 000; Capital (OE) +\$50 000. $A + \$50\,000 = L \$0 + OE + \$50\,000$
8. Delivery scooter (asset) +\$6 500; Bank (asset) −\$6 500. $\Delta A = \$0$; equation unchanged
9. Bank (asset) −\$1 100; OE −\$1 100 (expense). $\Delta A - \$1\,100 = \Delta L \$0 + \Delta OE - \$1\,100$
10. Bank (asset) +\$3 600; OE +\$3 600 (revenue). $\Delta A + \$3\,600 = \Delta L \$0 + \Delta OE + \$3\,600$
11. Bank (asset) +\$22 000; Loan (liability) +\$22 000. $\Delta A + \$22\,000 = \Delta L + \$22\,000 + \Delta OE \$0$
12. Bank (asset) −\$2 500; OE −\$2 500 (Drawings). $\Delta A - \$2\,500 = \Delta L \$0 + \Delta OE - \$2\,500$
13. Refrigerated trailer +\$19 000, Bank −\$7 000, Loan +\$12 000. $\Delta A + \$12\,000 = \Delta L + \$12\,000 + \Delta OE \$0$
14. Bank (asset) −\$4 500; Loan (liability) −\$4 500. $\Delta A - \$4\,500 = \Delta L - \$4\,500 + \Delta OE \$0$
15. Piano (asset) +\$9 500; Capital (OE) +\$9 500. $\Delta A + \$9\,500 = \Delta L \$0 + \Delta OE + \$9\,500$
16. Workbench (asset) −\$1 300; OE −\$1 300 (Drawings). $\Delta A - \$1\,300 = \Delta L \$0 + \Delta OE - \$1\,300$
17. Closing: A \$41 200 = L \$8 000 + OE \$33 200
18. See solutions

Fully-worked solutions

Question 1

- a. **1 Mar:** Bank (asset) increases \$28 000; Capital (owner's equity) increases \$28 000. **4 Mar:** Camera equipment (asset) increases \$7 500; Bank (asset) decreases \$7 500.

Transaction	Assets \$	Liabilities \$	Owner's equity \$
1 Mar — Bank +, Capital +	+28 000		+28 000
4 Mar — Camera equipment +, Bank —	+7 500 − 7 500 = 0		

- c. After both transactions: Bank \$20 500 + Camera equipment \$7 500 = **assets \$28 000; liabilities \$0; owner's equity \$28 000**. $A = L + OE$: $\$28\,000 = \$0 + \$28\,000$.

Question 2

- a. **3 May:** Bank (asset) decreases \$900; owner's equity decreases \$900 (advertising expense). **7 May:** Bank (asset) increases \$4 200; owner's equity increases \$4 200 (service revenue).

Transaction	Assets \$	Liabilities \$	Owner's equity \$
3 May — Bank −,	−900		−900

Transaction	Assets \$	Liabilities \$	Owner's equity \$
Advertising			
7 May — Bank +, revenue	+4 200		+4 200

- c. Bank = \$12 000 – \$900 + \$4 200 = \$15 300, so **assets \$15 300; liabilities \$0**; owner's equity = \$12 000 – \$900 + \$4 200 = **\$15 300**. **A = L + OE**: \$15 300 = \$0 + \$15 300.

Question 3

- a. **5 Jun**: Bank (asset) increases \$8 000; Loan (liability) increases \$8 000. **15 Jun**: Coffee machine (asset) increases \$6 000; Loan (liability) increases \$6 000.

Transaction	Assets \$	Liabilities \$	Owner's equity \$
5 Jun — Bank +, Loan +	+8 000	+8 000	
15 Jun — Coffee machine +, Loan +	+6 000	+6 000	

- c. Assets = Bank \$26 000 + Equipment \$22 000 + Coffee machine \$6 000 = **\$54 000**; Loan = \$10 000 + \$8 000 + \$6 000 = **\$24 000**; Capital **\$30 000**. **A = L + OE**: \$54 000 = \$24 000 + \$30 000.

Question 4

- a. **6 Jul**: Bank (asset) decreases \$2 000; owner's equity decreases \$2 000 (Drawings). **10 Jul**: Bank (asset) decreases \$3 000; Loan (liability) decreases \$3 000.

Transaction	Assets \$	Liabilities \$	Owner's equity \$
6 Jul — Bank –, Drawings	–2 000		–2 000
10 Jul — Bank –, Loan –	–3 000	–3 000	

- c. Bank = \$9 000 – \$2 000 – \$3 000 = \$4 000, so assets = \$4 000 + Office equipment \$15 000 = **\$19 000**; Loan = \$6 000 – \$3 000 = **\$3 000**; Capital = \$18 000 – \$2 000 = **\$16 000**. **A = L + OE**: \$19 000 = \$3 000 + \$16 000.

Question 5

- a. Bank = **current asset**; Van and Tools = **non-current assets**; Capital = **owner's equity**. (There are no liabilities.)

Transaction	Assets \$	Liabilities \$	Owner's equity \$
1 Aug — Bank +, Van +, Capital +	+25 000 + 18 000 = +43 000		+43 000
9 Aug — Tools +, Bank –	+5 000 – 5 000 = 0		

- c. Assets = Bank \$20 000 + Van \$18 000 + Tools \$5 000 = **\$43 000**; **liabilities \$0**; Capital **\$43 000**. **A = L + OE**: \$43 000 = \$0 + \$43 000.

Question 6

- a. Gym equipment (asset) increases \$11 000; Bank (asset) decreases \$4 000; Loan (liability) increases \$7 000.

Item	Assets \$	Liabilities \$	Owner's equity \$
Gym equipment	+11 000		
Bank	–4 000		
Loan – Summit Bank		+7 000	
Net effect	+7 000	+7 000	0

Item	Assets \$	Liabilities \$	Owner's equity \$
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$\Delta A = \Delta L + \Delta OE$: $+\$7\,000 = +\$7\,000 + \$0$ — the equation balances.

- c. The accounting equation states that Assets = Liabilities + Owner's equity, so the two sides must stay **equal** after every transaction. If a transaction changed only **one** item, one side of the equation would move while the other did not, breaking the equality. To keep the equation balanced, any change must be matched by a second (or further) change of equal net value — either on the opposite side of the equation or as an offsetting change on the same side. Here the \$7 000 net rise in assets is matched by a \$7 000 rise in liabilities, so the equation stays in balance.

Question 7

Bank (asset) increases \$50 000; Capital (owner's equity) increases \$50 000. $\Delta A = \Delta L + \Delta OE$: $+\$50\,000 = \$0 + \$50\,000$ — the equation balances. Two items change (an asset and owner's equity), on opposite sides.

Question 8

Delivery scooter (asset) increases \$6 500; Bank (asset) decreases \$6 500. The two changes are on the **same side**, so $\Delta A = +\$6\,500 - \$6\,500 = \$0$; liabilities and owner's equity are unchanged. Only the composition of assets changes — cash is exchanged for a non-current asset.

Question 9

Bank (asset) decreases \$1 100; owner's equity decreases \$1 100 (the rent is an expense that reduces profit). $\Delta A = \Delta L + \Delta OE$: $-\$1\,100 = \$0 + (-\$1\,100)$ — the equation balances.

Question 10

Bank (asset) increases \$3 600; owner's equity increases \$3 600 (the service fee is revenue that adds to profit). $\Delta A = \Delta L + \Delta OE$: $+\$3\,600 = \$0 + \$3\,600$ — the equation balances.

Question 11

Bank (asset) increases \$22 000; Loan – Coastal Bank (liability) increases \$22 000. $\Delta A = \Delta L + \Delta OE$: $+\$22\,000 = +\$22\,000 + \$0$ — the equation balances. An asset and a liability rise together, on opposite sides.

Question 12

Bank (asset) decreases \$2 500; owner's equity decreases \$2 500 (Drawings — the owner takes value out of the business). $\Delta A = \Delta L + \Delta OE$: $-\$2\,500 = \$0 + (-\$2\,500)$ — the equation balances.

Question 13

Refrigerated trailer (asset) increases \$19 000; Bank (asset) decreases \$7 000; Loan – Riverton Bank (liability) increases \$12 000.

Item	Assets \$	Liabilities \$	Owner's equity \$
Refrigerated trailer	+19 000		
Bank	-7 000		
Loan – Riverton Bank		+12 000	
Net effect	+12 000	+12 000	0

$\Delta A = \Delta L + \Delta OE$: $+\$12\,000 = +\$12\,000 + \$0$ — the equation balances. The transaction affects **three** items, confirming that the twofold effect is a minimum.

Question 14

Bank (asset) decreases \$4 500; Loan (liability) decreases \$4 500. $\Delta A = \Delta L + \Delta OE$: $-\$4\,500 = (-\$4\,500) + \$0$ — the equation balances. An asset and a liability fall together.

Question 15

Piano (asset) increases \$9 500; Capital (owner's equity) increases \$9 500. $\Delta A = \Delta L + \Delta OE$: $+\$9\,500 = \$0 + \$9\,500$ — the equation balances. This is a **non-cash** contribution: no cash changes hands, but an asset and owner's equity both rise.

Question 16

Workbench (asset) decreases \$1 300; owner's equity decreases \$1 300 (Drawings — the owner takes a business asset for private use). $\Delta A = \Delta L + \Delta OE$: $-\$1\,300 = \$0 + (-\$1\,300)$ — the equation balances. Like a cash drawing, this reduces both an asset and owner's equity, but here the asset withdrawn is not cash.

Question 17

Opening: Bank \$15 000 + Sewing equipment \$20 000 = assets \$35 000; Loan \$8 000; Capital \$27 000 (\$35 000 = \$8 000 + \$27 000).

Transaction	Assets \$	Liabilities \$	Owner's equity \$
4 Nov — Bank +, Capital +	+5 000		+5 000
9 Nov — Cutting table +, Bank −	+3 500 − 3 500 = 0		
16 Nov — Bank +, revenue	+2 200		+2 200
23 Nov — Bank −, Drawings	−1 000		−1 000

Each transaction keeps $\Delta A = \Delta L + \Delta OE$, so the equation balances after each. Closing balances:

- Bank = \$15 000 + \$5 000 − \$3 500 + \$2 200 − \$1 000 = \$17 700.
- Assets = Bank \$17 700 + Sewing equipment \$20 000 + Cutting table \$3 500 = **\$41 200**.
- Liabilities = Loan − Pinnacle Bank **\$8 000** (unchanged).
- Owner's equity = Capital \$27 000 + \$5 000 (contribution) + \$2 200 (revenue) − \$1 000 (Drawings) = **\$33 200**.

$A = L + OE$: $\$41\,200 = \$8\,000 + \$33\,200$.

Question 18

The accounting equation, Assets = Liabilities + Owner's equity, must remain true after every transaction, which means the two sides must always stay **equal**. A transaction that changed only one item would move one side of the equation without a matching change, so the equality would fail — an impossible result for a genuine statement of the business's position. Every transaction must therefore have **at least two** effects that, together, preserve the equality.

There are two ways this happens. When a transaction changes items on **opposite sides** — for example, borrowing \$10 000 cash raises the asset Bank by \$10 000 and the liability Loan by \$10 000 — both sides of the equation rise by the same amount, so they remain equal. When a transaction changes two items on the **same side** — for example, buying equipment for \$5 000 cash raises the asset Equipment by \$5 000 and lowers the asset Bank by \$5 000 — the increase and decrease cancel, leaving that side's total (and therefore the equation) unchanged. In both cases it is the **matching, equal-valued second effect** that keeps the accounting equation in balance.