

Accounting Units 3 & 4

Chapter 19 Evaluating performance: liquidity

This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

Attribution: Classbasics Pty Ltd, vwx.au

Aboriginal and Torres Strait Islander content has been excluded as accuracy cannot be guaranteed, and it is better to be respectful than cover the entire curriculum inaccurately.

Significant effort has been made to ensure this content is legal. Please send any areas of concern to admin@vwx.au with appropriate document/legal references so errors can be verified and changes be made.

Contents

Section	Page
19A Liquidity and the Working Capital Ratio	2
19B Quick Asset Ratio and Cash Flow Cover	14
19C Turnover indicators; Inventory Turnover	30
19D Accounts Receivable and Accounts Payable Turnover	41
Topic 6 Test A — Recording and analysis	54
Topic 6 Test A — solutions	57
Topic 6 Test B — Short-answer recording	62
Topic 6 Test B — solutions	64

Chapter 19 Evaluating performance: liquidity — 19A Liquidity and the Working Capital Ratio

Theory

A business can report a healthy profit and still fail. Profit measures whether a business is *earning*, but it does not measure whether the business has the **cash** to pay its bills when they fall due. Wages must be paid each fortnight, suppliers expect payment within their credit terms, the GST owing to the ATO has a due date, and a bank overdraft can be recalled — all of these are **short-term** obligations that must be met on time, whatever the profit figure says. The ability to meet them is called **liquidity**.

Liquidity is the ability of a business to **meet its short-term debts as they fall due** — that is, to pay its **current liabilities** out of its **current assets** as those debts become payable within the next twelve months. A business that cannot pay its debts on time, no matter how profitable, is in serious trouble: suppliers may stop supplying on credit, the bank may withdraw finance, and the business may be forced to sell assets at a loss or cease trading. Assessing liquidity is therefore one of the most important things the owner and other users do with the reports.

The current assets and current liabilities. Liquidity is judged by comparing the two *current* sections of the Balance Sheet:

- **Current assets** are cash and other resources the business expects to turn into cash, sell or consume **within the next twelve months** — typically **Bank, Accounts Receivable, Inventory** and **prepaid expenses**. These are the resources available to pay short-term debts.
- **Current liabilities** are obligations the business expects to settle **within the next twelve months** — typically **Accounts Payable, GST Clearing** (when payable), **accrued expenses** and a **bank overdraft**. These are the debts that will fall due in the short term.

The Working Capital Ratio. The **Working Capital Ratio (WCR)** is the main tool for assessing liquidity. It compares the total current assets available with the total current liabilities that must be paid, and expresses the relationship as a **ratio to 1**:

$$\text{Working Capital Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

The result is written as **X : 1** — for example a WCR of **2.00 : 1** means the business has **\$2 of current assets for every \$1 of current liabilities**. Two points about the ratio matter:

- It is a **ratio, not a dollar figure**. Dividing current assets by current liabilities strips out the size of the business, so a small business and a large business can be compared on the same footing, and the same business can be tracked from year to year.
- It is conventionally expressed to **two decimal places**, always “**: 1**” on the right-hand side — because the point of the ratio is to show how many dollars of current assets back each single dollar of current liability.

Interpreting the ratio. A WCR of about **2 : 1** is widely used as a **benchmark** — a business with roughly twice as much in current assets as in current liabilities is generally regarded as having enough short-term resources to pay its debts as they fall due while keeping a sensible buffer. But the benchmark is a guide, not a rule, and both a *low* and a *high* ratio carry a message:

- A WCR that is **too low** — and especially one **below 1 : 1** — signals a **liquidity risk**. Below 1 : 1 the business has **fewer current assets than current liabilities**, so it does not have enough short-term resources to cover the debts falling due; it may be unable to pay suppliers, wages or the ATO on time and may have to borrow, sell assets or delay payments to survive.
- A WCR that is **too high** — well above the benchmark, such as 4 : 1 or 5 : 1 — is **not automatically good**. It usually means the business is holding **excessive current resources that are sitting idle**: cash earning little or no return, inventory piling up (with the storage, spoilage and obsolescence costs that brings), or accounts receivable it has been slow to collect. Those resources could be **put to more productive use** — invested in profit-earning non-current assets, used to reduce debt, or returned to the owner — so a very high ratio can point to **inefficient use of resources**.

Like every indicator, the WCR means most when it is **compared** — against the same business in **previous periods** (is liquidity improving or deteriorating?), against **similar businesses** or an **industry benchmark**, and with regard to the **nature of the business** (a supermarket that sells for cash and buys on credit can safely run a lower WCR than a business that ties up cash in slow-moving stock).

Liquidity is not profitability. These are two **different** measures of performance, and a business can be strong on one and weak on the other:

- **Liquidity** is about **cash and the short term** — can the business pay its debts *as they fall due*? It is measured by comparing current assets with current liabilities (the WCR).
- **Profitability** is about **earning** — is the business generating an adequate profit *relative to a base* such as sales, assets or the owner's capital? It is measured by indicators such as the Net Profit Margin and Return on Owner's Investment.

A business can be **profitable but illiquid**: it may be earning good profits, yet have little cash because the profit is tied up in **inventory**, in **accounts receivable** that have not yet been collected, or in **non-current assets** it has bought, or because cash has drained out in **drawings** and **loan repayments**. Conversely, a business can be **liquid but unprofitable** — sitting on cash while making losses. The Working Capital Ratio tells the user only about **liquidity**; it says nothing about whether the business is profitable, and a full evaluation of performance needs both.

Worked model. The Balance Sheet of Larkhill Trading as at 30 June 2026 shows the following current items:

	\$	\$
Current Assets		
Bank	20 000	
Accounts Receivable	40 000	
Inventory	55 000	
Prepaid expenses	5 000	120 000
Current Liabilities		
Accounts Payable	45 000	
GST Clearing	8 000	
Accrued wages	7 000	60 000

Current assets total \$120 000 and current liabilities total \$60 000, so:

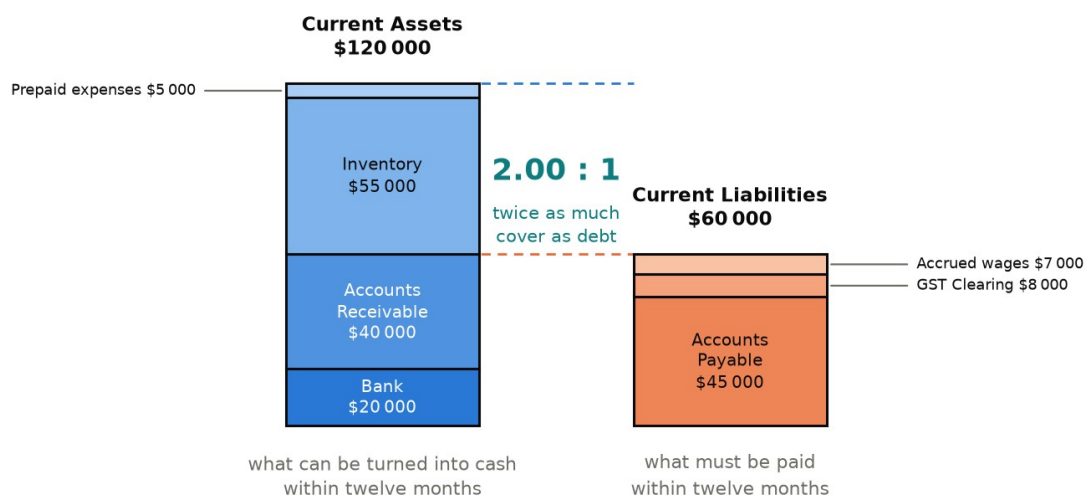
Working Capital Ratio

Working	\$
Current assets	120 000
Current liabilities	60 000
Working Capital Ratio = 120 000 ÷ 60 000	2.00 : 1

Larkhill has **\$2.00 of current assets for every \$1.00 of current liabilities**. At **2.00 : 1** the business sits on the usual benchmark: it holds enough short-term resources to meet its short-term debts as they fall due, with a reasonable buffer, and shows no obvious sign of either a liquidity problem or idle resources.

The Working Capital Ratio

Larkhill Trading as at 30 June 2026



Larkhill holds \$2 of current assets for every \$1 of current liabilities — but \$55 000 of that cover is Inventory, the least liquid current asset of all.

Larkhill Trading's current assets against its current liabilities, drawn to one scale

Both bars are built from their own components through the same scale, so the left bar finishes at **exactly twice** the height of the right — which is what a Working Capital Ratio of 2.00 : 1 means, and why the ratio is written “: 1”. The figure also shows what the single number conceals: \$55 000 of the \$120 000 of cover is **Inventory**, the least liquid current asset of all. Sections 19B and 19C return to precisely that point.

Worked examples (scaffolded)

Example 1 — calculating and interpreting the Working Capital Ratio

The Balance Sheet of Brookvale Supplies as at 30 June 2026 shows the current items below. Calculate the Working Capital Ratio and interpret it against the 2 : 1 benchmark.

	\$	\$
Current Assets		
Bank	12 000	
Accounts Receivable	28 000	
Inventory	34 000	
Prepaid rent	1 000	75 000
Current Liabilities		
Accounts Payable	22 000	
GST Clearing	3 000	
Accrued interest	5 000	30 000

Working	Comment
Current assets = \$12 000 + \$28 000 + \$34 000 + \$1 000 = \$75 000 .	Add every item in the Current Assets section — cash, receivables, inventory and prepaid expenses.
Current liabilities = \$22 000 + \$3 000 + \$5 000 = \$30 000 .	Add every item in the Current Liabilities section.
Working Capital Ratio = \$75 000 ÷ \$30 000 = 2.50 : 1 .	Divide current assets by current liabilities; write the answer as a ratio to 1.

Working	Comment
At 2.50 : 1 the business is above the 2 : 1 benchmark.	It has \$2.50 of current assets for every \$1.00 of current liabilities.

Working Capital Ratio

Working	\$
Current assets	75 000
Current liabilities	30 000
Working Capital Ratio = $75\,000 \div 30\,000$	2.50 : 1

Brookvale holds **\$2.50 of current assets for every \$1.00 of current liabilities** — comfortably above the 2 : 1 benchmark, so it is well placed to meet its short-term debts as they fall due. Management should simply check that the surplus is not the result of **idle cash or excess inventory** that could be put to more productive use.

Example 2 — interpreting a change over two years

Cedarvale Trading reports the following:

Item	2025	2026
Current assets \$	88 000	66 000
Current liabilities \$	40 000	60 000

Calculate the Working Capital Ratio for each year and interpret the change.

Working	Comment
2025: Working Capital Ratio = $\$88\,000 \div \$40\,000 = 2.20 : 1$.	The starting position — comfortably above the benchmark.
2026: Working Capital Ratio = $\$66\,000 \div \$60\,000 = 1.10 : 1$.	Current assets have fallen <i>and</i> current liabilities have risen, so the ratio drops sharply.
Change = $2.20 - 1.10 = 1.10$ fall, from 2.20 : 1 to 1.10 : 1.	A lower ratio means weaker short-term cover.

Cedarvale's Working Capital Ratio has fallen from **2.20 : 1 to 1.10 : 1**. In 2025 it held \$2.20 of current assets for every \$1.00 of current liabilities; by 2026 that cover has shrunk to just \$1.10, only barely above the point at which current liabilities would exceed current assets. This is an **unfavourable** trend: the business's liquidity has deteriorated markedly, and at 1.10 : 1 it has very little buffer to meet its short-term debts if collections slow or an unexpected bill arrives. Management should investigate *why* — for example whether cash has been drained by drawings, a large asset purchase or loan repayments — and act to rebuild its current-asset cover.

Worked examples (unscaffolded)

Example 3 — liquidity versus profitability

Marlowe & Sons earned a **net profit of \$90 000** for the year ended 30 June 2026 — its best result ever. Yet at balance day its current assets were \$45 000 and its current liabilities were \$50 000. Calculate the Working Capital Ratio and explain how the business can be highly profitable yet have a liquidity problem.

Working Capital Ratio = $\$45\,000 \div \$50\,000 = 0.90 : 1$.

At **0.90 : 1** Marlowe has only \$0.90 of current assets for every \$1.00 of current liabilities — its current liabilities *exceed* its current assets, so it does **not** have enough short-term resources to meet the debts falling due in the next twelve months. This is a genuine liquidity problem, and it can sit alongside a record profit because **profit and cash are not the same thing**. A strong profit does not have to be held as cash: it may have been reinvested in **inventory** or in **non-current assets**, it may be locked up in **accounts receivable** that customers have not yet paid, or it may have flowed straight out of the business as **drawings** or **loan repayments**, neither of which reduces profit but both of which reduce cash.

∴ profitability measures whether the business is *earning*, while liquidity measures whether it can *pay its short-term debts on time*; Marlowe is succeeding at the first and failing at the second, and needs to improve its liquidity — for example by injecting capital, arranging longer-term finance or curbing drawings.

Example 4 — a Working Capital Ratio that is too high

Thornbury Wholesale reports current assets of \$160 000 and current liabilities of \$40 000 at 30 June 2026. Most of the current assets are cash sitting in the bank and a large holding of inventory. Calculate the Working Capital Ratio and discuss whether such a high ratio is a good sign.

Working Capital Ratio = \$160 000 ÷ \$40 000 = **4.00 : 1**.

At **4.00 : 1** Thornbury has \$4.00 of current assets for every \$1.00 of current liabilities — double the benchmark. On the surface its liquidity looks very strong, and it is in no danger of failing to pay its short-term debts. But a ratio this high is **not automatically good**. It suggests the business is holding **far more current resources than it needs**, and that those resources are sitting **idle**: cash in the bank earns little or no return, and a large inventory holding brings storage, insurance and obsolescence costs and ties up funds in stock that is slow to sell.

∴ the high ratio points to **inefficient use of resources** rather than sound management. Thornbury could put the surplus to more productive use — investing in profit-earning non-current assets, reducing debt, or returning funds to the owner — and lift its profitability without endangering its ability to pay its debts.

Practice questions — scaffolded

Question 1

The Balance Sheet of Meridian Traders as at 30 June 2026 shows the following current items:

	\$	\$
Current Assets		
Bank	8 000	
Accounts Receivable	16 000	
Inventory	34 000	
Prepaid insurance	2 000	60 000
Current Liabilities		
Accounts Payable	20 000	
GST Clearing	4 000	
Accrued wages	6 000	30 000

- Calculate the total current assets and the total current liabilities.
- Calculate the Working Capital Ratio.
- Interpret the result against the 2 : 1 benchmark in one sentence.

Question 2

Fernwood Living reports:

Item	2025	2026
Current assets \$	90 000	78 000
Current liabilities \$	45 000	60 000

- Calculate the Working Capital Ratio for each year.
- State whether liquidity has improved or deteriorated, and by how much the ratio has changed.
- Explain one implication of the change for the business.

Question 3

Ashgrove Interiors earned a net profit of \$70 000 for the year ended 30 June 2026, but its current assets were \$33 000 and its current liabilities were \$30 000.

- Calculate the Working Capital Ratio.
- State whether the business's liquidity is satisfactory.
- Explain how a business can be profitable yet still have weak liquidity.

Question 4

Wilden Wholesalers reports current assets of \$105 000 and current liabilities of \$30 000 at 30 June 2026, made up mostly of cash and inventory.

- Calculate the Working Capital Ratio.
- State whether the ratio is above or below the 2 : 1 benchmark.
- Explain one drawback of a Working Capital Ratio that is this high.

Question 5

Calder Supplies reports current assets of \$42 000 and current liabilities of \$60 000 at 30 June 2026.

- Calculate the Working Capital Ratio.
- State whether the business is likely to be able to meet its short-term debts as they fall due, and why.
- State one strategy the business could use to improve its liquidity.

Question 6

The Balance Sheet of Sandford Living as at 30 June 2026 shows the following current items:

	\$	\$
Current Assets		
Bank	14 000	
Accounts Receivable	30 000	
Inventory	48 000	
Prepaid advertising	4 000	96 000
Current Liabilities		
Accounts Payable	36 000	
GST Clearing	6 000	
Accrued wages	6 000	48 000

- Calculate the Working Capital Ratio.
- Interpret the result against the 2 : 1 benchmark.
- Explain, in one sentence, why this ratio tells a user about the business's liquidity but not about its profitability.

Practice questions — unscaffolded

Question 7

The Balance Sheet of Halcyon Homewares as at 30 June 2026 shows current assets of Bank \$10 000, Accounts Receivable \$22 000, Inventory \$36 000 and Prepaid rent \$2 000, and current liabilities of Accounts Payable \$28 000, GST Clearing \$4 000 and Accrued wages \$3 000. Calculate the Working Capital Ratio and state what it tells the user.

Question 8

Pinehaven Trading reports current assets of \$100 000 and current liabilities of \$60 000 at 30 June 2026. Calculate the Working Capital Ratio.

Question 9

Oakridge Retail reports current assets of \$84 000 and current liabilities of \$42 000 in 2025, and current assets of \$96 000 and current liabilities of \$40 000 in 2026. Calculate the Working Capital Ratio for each year and state whether liquidity has improved or deteriorated, and by how much.

Question 10

Bellamy & Reid earned a net profit of \$110 000 for the year ended 30 June 2026, yet reports current assets of \$40 000 and current liabilities of \$50 000. Calculate the Working Capital Ratio and explain why this result shows that profitability and liquidity are different measures of performance.

Question 11

Grangewood Distributors reports current assets of \$150 000 and current liabilities of \$30 000 at 30 June 2026, most of it held as cash and inventory. Calculate the Working Capital Ratio and discuss whether this is a favourable position for the business.

Question 12

The Balance Sheet of Verdant Garden Centre as at 30 June 2026 shows current assets of Bank \$9 000, Accounts Receivable \$18 000, Inventory \$35 000 and Prepaid insurance \$3 000, and current liabilities of Accounts Payable \$24 000, GST Clearing \$4 000 and Accrued interest \$2 000. Calculate the Working Capital Ratio and interpret it against the 2 : 1 benchmark.

Question 13

Rosslyn Trading reports current assets of \$55 000 and current liabilities of \$50 000 in 2025, and current assets of \$72 000 and current liabilities of \$45 000 in 2026. Calculate the Working Capital Ratio for each year, state the change, and explain one likely reason liquidity has changed in the direction it has.

Question 14

Delmore Supplies reports current assets of \$36 000 and current liabilities of \$45 000 at 30 June 2026. Calculate the Working Capital Ratio and discuss two strategies the business could use to improve its liquidity.

Question 15

The Balance Sheet of Kingsley Office Supplies as at 30 June 2026 includes: Bank \$15 000, Accounts Receivable \$25 000, Inventory \$40 000, Prepaid rent \$5 000, Office equipment \$60 000, Accounts Payable \$30 000, GST Clearing \$6 000, Accrued wages \$4 000 and Loan – Northbank (due 2031) \$50 000. Calculate the Working Capital Ratio, taking care to include only the current items.

Question 16

Whitmore Furnishings reports a net profit of \$95 000 for the year ended 30 June 2026 — up from \$60 000 the previous year — but its Working Capital Ratio has fallen over the same period. At 30 June 2026 its current assets are \$44 000 and its current liabilities are \$55 000. Calculate the current Working Capital Ratio and discuss how the business can be more profitable yet less liquid than before.

Question 17

The Balance Sheet of Ambrose & Co as at 30 June 2026 shows current assets of Bank \$22 000, Accounts Receivable \$48 000, Inventory \$56 000 and Prepaid expenses \$6 000, and current liabilities of Accounts Payable \$45 000, GST Clearing \$9 000 and Accrued wages \$6 000. Calculate the Working Capital Ratio, interpret it against the 2 : 1 benchmark, and state one action management should take in response.

Question 18

Templeton Trading reports current assets of \$96 000 and current liabilities of \$40 000 in 2025, and current assets of \$60 000 and current liabilities of \$50 000 in 2026. Calculate the Working Capital Ratio for each year, evaluate the change in the business's liquidity, and explain one thing management should investigate.

Answers

1.
 - a. Current assets \$60 000; current liabilities \$30 000 b. 2.00 : 1 c. On the 2 : 1 benchmark
2.
 - a. 2025 = 2.00 : 1; 2026 = 1.30 : 1 b. Deteriorated, by 0.70
3.
 - a. 1.10 : 1 b. No — only just above 1 : 1
4.
 - a. 3.50 : 1 b. Above the benchmark
5.
 - a. 0.70 : 1 b. No — current liabilities exceed current assets
6.
 - a. 2.00 : 1 b. On the benchmark
7. 2.00 : 1
8. 1.67 : 1
9. 2025 = 2.00 : 1; 2026 = 2.40 : 1; improved, by 0.40
10. 0.80 : 1
11. 5.00 : 1
12. 2.17 : 1
13. 2025 = 1.10 : 1; 2026 = 1.60 : 1; improved, by 0.50
14. 0.80 : 1
15. 2.13 : 1 (current assets \$85 000 ÷ current liabilities \$40 000)
16. 0.80 : 1
17. 2.20 : 1
18. 2025 = 2.40 : 1; 2026 = 1.20 : 1; deteriorated, by 1.20

Fully-worked solutions

Question 1

- a. Current assets = \$8 000 + \$16 000 + \$34 000 + \$2 000 = **\$60 000**. Current liabilities = \$20 000 + \$4 000 + \$6 000 = **\$30 000**.
- b. Working Capital Ratio = \$60 000 ÷ \$30 000 = **2.00 : 1**.
- c. Meridian holds \$2.00 of current assets for every \$1.00 of current liabilities, exactly on the 2 : 1 benchmark, so it has enough short-term resources to meet its short-term debts as they fall due.

Question 2

- a. 2025: Working Capital Ratio = \$90 000 ÷ \$45 000 = **2.00 : 1**. 2026: Working Capital Ratio = \$78 000 ÷ \$60 000 = **1.30 : 1**.
- b. Liquidity has **deteriorated**: the ratio has fallen by **0.70**, from 2.00 : 1 to 1.30 : 1.
- c. With current liabilities rising to \$60 000 while current assets fell to \$78 000, Fernwood now has far less cover for its short-term debts — only \$1.30 of current assets per \$1.00 of current liabilities. It has a much smaller buffer and is closer to the point at which it could struggle to pay suppliers, wages or the ATO on time, so management should act to rebuild its current-asset cover.

Question 3

- a. Working Capital Ratio = \$33 000 ÷ \$30 000 = **1.10 : 1**.
- b. Liquidity is **not really satisfactory**. At 1.10 : 1 the business has only \$1.10 of current assets for every \$1.00 of current liabilities — barely above 1 : 1 and well below the 2 : 1 benchmark, leaving almost no buffer if collections slow or an unexpected bill arrives.

- c. Profit and cash are not the same thing. A business can earn a large profit yet hold little in current assets because the profit has been **reinvested in inventory or non-current assets**, is **tied up in accounts receivable** not yet collected, or has flowed out as **drawings** or **loan repayments** — none of which reduces profit, but all of which reduce the current resources available to pay short-term debts. So a profitable business can still have weak liquidity.

Question 4

- a. Working Capital Ratio = $\$105\,000 \div \$30\,000 = 3.50 : 1$.
- b. At 3.50 : 1 the ratio is well **above** the 2 : 1 benchmark.
- c. A ratio this high usually means the business is holding **excessive current resources that are sitting idle** — cash earning little or no return and inventory carrying storage and obsolescence costs. Those resources could be put to more productive use (invested in profit-earning assets or used to reduce debt), so a very high ratio points to **inefficient use of resources** rather than good management.

Question 5

- a. Working Capital Ratio = $\$42\,000 \div \$60\,000 = 0.70 : 1$.
- b. The business is **unlikely** to be able to meet its short-term debts as they fall due. At 0.70 : 1 its current liabilities (\$60 000) **exceed** its current assets (\$42 000), so it has only \$0.70 of current resources for every \$1.00 of debt due within the year.
- c. Calder could improve its liquidity by, for example, **arranging a long-term (non-current) loan or having the owner contribute additional capital** and holding the funds as cash, **selling an unused non-current asset** for cash, or **reducing drawings** — each of which raises current assets or lowers current liabilities and lifts the ratio.

Question 6

- a. Current assets = $\$14\,000 + \$30\,000 + \$48\,000 + \$4\,000 = \$96\,000$; current liabilities = $\$36\,000 + \$6\,000 + \$6\,000 = \$48\,000$. Working Capital Ratio = $\$96\,000 \div \$48\,000 = 2.00 : 1$.
- b. At 2.00 : 1 Sandford sits exactly on the benchmark, with \$2.00 of current assets for every \$1.00 of current liabilities — enough short-term cover to meet its debts as they fall due, with a reasonable buffer.
- c. The Working Capital Ratio compares current assets with current liabilities, so it measures only the business's ability to pay its short-term debts (liquidity); it says nothing about how much profit the business earns relative to its sales, assets or capital (profitability).

Question 7

Current assets = $\$10\,000 + \$22\,000 + \$36\,000 + \$2\,000 = \$70\,000$. Current liabilities = $\$28\,000 + \$4\,000 + \$3\,000 = \$35\,000$. Working Capital Ratio = $\$70\,000 \div \$35\,000 = 2.00 : 1$. Halcyon has \$2.00 of current assets for every \$1.00 of current liabilities, on the 2 : 1 benchmark, so it has enough short-term resources to meet its short-term debts as they fall due.

Question 8

Working Capital Ratio = $\$100\,000 \div \$60\,000 = 1.67 : 1$ (1.6667, rounded to two decimal places). Pinehaven has \$1.67 of current assets for every \$1.00 of current liabilities — a little below the 2 : 1 benchmark but still comfortably above 1 : 1.

Question 9

2025: Working Capital Ratio = $\$84\,000 \div \$42\,000 = 2.00 : 1$. 2026: Working Capital Ratio = $\$96\,000 \div \$40\,000 = 2.40 : 1$. The ratio has risen by **0.40**, from 2.00 : 1 to 2.40 : 1, so Oakridge's liquidity has **improved** — it now holds more current-asset cover for each dollar of current liability. Provided the extra cover is not idle cash or excess stock, this is a favourable trend.

Question 10

Working Capital Ratio = $\$40\,000 \div \$50\,000 = 0.80 : 1$. Despite a net profit of \$110 000, Bellamy & Reid has only \$0.80 of current assets for every \$1.00 of current liabilities, so its current liabilities exceed its current assets and it faces a liquidity problem. This shows that **profitability and liquidity are different**: profit measures whether the business is earning, but that profit can be tied up in inventory, in uncollected accounts receivable or in non-current assets, or drained away by drawings and loan repayments, leaving too little in current assets to pay short-term debts as they fall due. A business can therefore be highly profitable and still be short of the resources it needs to meet its immediate obligations.

Question 11

Working Capital Ratio = $\$150\,000 \div \$30\,000 = 5.00 : 1$. At 5.00 : 1 Grangewood has \$5.00 of current assets for every \$1.00 of current liabilities — far above the 2 : 1 benchmark. Its ability to pay short-term debts is not in doubt, but this is **not necessarily a favourable position**: a ratio this high suggests the business is holding **far more current resources than it needs**, and that they are largely **idle** — cash earning little return and inventory tying up funds and carrying holding and obsolescence costs. The business would be better off directing the surplus into profit-earning non-current assets, reducing debt, or returning it to the owner, so the very high ratio actually signals **inefficient use of resources**.

Question 12

Current assets = $\$9\,000 + \$18\,000 + \$35\,000 + \$3\,000 = \$65\,000$. Current liabilities = $\$24\,000 + \$4\,000 + \$2\,000 = \$30\,000$. Working Capital Ratio = $\$65\,000 \div \$30\,000 = 2.17 : 1$ (2.1667, rounded to two decimal places). At 2.17 : 1 Verdant is just above the 2 : 1 benchmark, holding \$2.17 of current assets for every \$1.00 of current liabilities — a sound liquidity position with enough cover to meet its short-term debts as they fall due while keeping a small buffer.

Question 13

2025: Working Capital Ratio = $\$55\,000 \div \$50\,000 = 1.10 : 1$. 2026: Working Capital Ratio = $\$72\,000 \div \$45\,000 = 1.60 : 1$. The ratio has risen by **0.50**, from 1.10 : 1 to 1.60 : 1, so liquidity has **improved**. Current assets have grown from \$55 000 to \$72 000 while current liabilities have fallen from \$50 000 to \$45 000; this could reflect, for example, the owner contributing capital, the business arranging longer-term finance in place of short-term debt, or stronger cash collections building up current assets and allowing current liabilities to be paid down.

Question 14

Working Capital Ratio = $\$36\,000 \div \$45\,000 = 0.80 : 1$. At 0.80 : 1 Delmore's current liabilities exceed its current assets, so it has a liquidity problem and needs to raise the ratio above 1 : 1 and towards the benchmark. Two strategies: (1) **inject longer-term finance or capital** — the owner could contribute additional capital, or the business could arrange a **non-current (long-term) loan** and hold the funds as cash, raising current assets without adding to current liabilities; and (2) **reduce current liabilities using non-current resources** — for example by **selling an unused non-current asset** for cash to pay off short-term debts, **refinancing a short-term debt with a long-term loan**, or **reducing drawings** so that more cash is retained in the business. Each lifts current assets relative to current liabilities and strengthens liquidity.

Question 15

Only the **current** items are included. Current assets = Bank \$15 000 + Accounts Receivable \$25 000 + Inventory \$40 000 + Prepaid rent \$5 000 = \$85 000 (the Office equipment \$60 000 is a non-current asset and is excluded). Current liabilities = Accounts Payable \$30 000 + GST Clearing \$6 000 + Accrued wages \$4 000 = \$40 000 (the Loan – Northbank \$50 000, due 2031, is a non-current liability and is excluded). Working Capital Ratio = $\$85\,000 \div \$40\,000 = 2.13 : 1$ (2.125, rounded to two decimal places). Kingsley is just above the benchmark, with \$2.13 of current assets for every \$1.00 of current liabilities.

Question 16

Working Capital Ratio (2026) = $\$44\,000 \div \$55\,000 = 0.80 : 1$. Whitmore is **more profitable** than the previous year (net profit up from \$60 000 to \$95 000) yet **less liquid** — at 0.80 : 1 its current liabilities now exceed its current assets. This is possible because profit and cash move differently. The extra profit need not be sitting in current assets: it may have been used to **buy non-current assets**, built up in **inventory** or in **accounts receivable** that customers have not yet paid, or paid out as **drawings** or **loan repayments** — all of which reduce the current resources available

to meet short-term debts without reducing profit. So a business can lift its profitability while its liquidity falls, which is exactly why both must be assessed: the strong profit does not guarantee that Whitmore can pay its debts as they fall due, and the 0.80 : 1 ratio warns that it currently cannot.

Question 17

Current assets = \$22 000 + \$48 000 + \$56 000 + \$6 000 = \$132 000. Current liabilities = \$45 000 + \$9 000 + \$6 000 = \$60 000. Working Capital Ratio = $\$132\,000 \div \$60\,000 = 2.20 : 1$. At 2.20 : 1 Ambrose & Co is just above the 2 : 1 benchmark, holding \$2.20 of current assets for every \$1.00 of current liabilities, so its liquidity is sound and it can meet its short-term debts as they fall due. Management should **monitor the composition of the current assets** — in particular the \$56 000 of inventory and \$48 000 of receivables — to confirm the cover is genuine and not the result of slow-moving stock or slow collections that a headline ratio can disguise.

Question 18

2025: Working Capital Ratio = $\$96\,000 \div \$40\,000 = 2.40 : 1$. 2026: Working Capital Ratio = $\$60\,000 \div \$50\,000 = 1.20 : 1$. The ratio has fallen by **1.20**, from 2.40 : 1 to 1.20 : 1 — a large **deterioration** in liquidity. In 2025 Templeton held a healthy \$2.40 of current assets for every \$1.00 of current liabilities; by 2026 that cover has collapsed to \$1.20, only just above 1 : 1, because current assets fell by \$36 000 while current liabilities rose by \$10 000. This is a serious warning sign: the buffer protecting the business's ability to pay its short-term debts has almost disappeared. Management should **investigate where the current assets have gone** — for example whether cash has been drained by heavy drawings, a large non-current asset purchase or loan repayments, or whether current liabilities have been allowed to build up — and take action, such as arranging longer-term finance or reducing drawings, before the business is unable to meet its debts as they fall due.

Chapter 19 Evaluating performance: liquidity — 19B Quick Asset Ratio and Cash Flow Cover

Theory

The previous section (19A) introduced **liquidity** — a business's ability to meet its **short-term debts** (its current liabilities) as they fall due — and the **Working Capital Ratio (WCR)**, which compares **all** of a business's current assets with its current liabilities:

$$\text{Working Capital Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

expressed as a ratio of the form **X : 1**. The WCR is a sound first measure of liquidity, but it has a weakness: it treats **every** current asset as equally available to pay debts. In reality, some current assets are far **slower** to turn into cash than others, so a business can report a comfortable WCR and still struggle to find the cash to pay its immediate bills. This section introduces a **stricter** test that addresses that weakness — the **Quick Asset Ratio** — and revisits the **Cash Flow Cover** as a liquidity indicator, then shows how the three indicators are read **together**.

Quick assets. A **quick asset** is a current asset that is **cash, or close to becoming cash** — it can be used to pay a debt almost immediately. The quick assets are the current assets **less inventory and less prepaid expenses**:

- **Inventory is excluded** because it is the current asset **furthest from cash**. Before inventory can pay a debt it must first be **sold**, and — where it is sold on credit — the resulting **account receivable must then be collected**. That is two steps away from cash. A business under liquidity pressure may also have to discount slow-moving inventory to shift it, so its cash value is uncertain.
- **Prepaid expenses are excluded** because the business has **already paid the cash out**; a prepaid expense will be **consumed as a service** (for example, insurance cover or rent already paid for), so it will **never be reconverted into cash** and can never be used to settle a debt.

The quick assets are therefore, in practice, the **Bank and Accounts Receivable** (together with any other near-cash current asset) — the assets a business could actually draw on to meet a debt now.

The denominator — current liabilities. The quick assets are compared with the **whole of the current liabilities**. Unlike the numerator, **nothing is removed** from the denominator: every current liability must be met in the short term, so all of them belong in the test. In particular, a **bank overdraft** — if the business has one — is itself a current liability that is **repayable on demand**, so it is one of the most immediate debts of all and **stays in** the current liabilities (it is *not* deducted). The current liabilities are chiefly Accounts Payable, GST payable, accrued expenses and any bank overdraft.

The Quick Asset Ratio. Putting the two together gives the **Quick Asset Ratio (QAR)**:

$$\text{Quick Asset Ratio} = \frac{\text{Current assets} - \text{inventory} - \text{prepaid expenses}}{\text{Current liabilities}}$$

expressed, like the WCR, as **X : 1** (both sides are divided by the current liabilities so the denominator becomes 1). The QAR asks a sharper question than the WCR: *could the business meet its immediate debts from its most liquid assets alone, without having to sell inventory?*

Interpreting the Quick Asset Ratio. The QAR is conventionally quoted to **two decimal places**, and a rough benchmark is **1 : 1** (against a rough WCR benchmark of about 2 : 1):

- A QAR of **1 : 1 or higher** means quick assets are **at least equal to** immediate liabilities — the business could pay its short-term debts from cash and receivables **without** relying on selling inventory. This is a sound immediate-liquidity position.
- A QAR **below 1 : 1** means quick assets are **less than** immediate liabilities — the business **could not** meet its immediate debts from its liquid assets alone and would depend on **selling inventory** (and then collecting the proceeds) to bridge the gap. The lower the ratio, the greater that dependence, and the greater the risk if inventory proves slow to sell.

As with every indicator, the number means little in isolation. The QAR is most useful when **compared** — against the business's **own earlier periods** (is its immediate liquidity strengthening or weakening?) and against **similar businesses**. Comparing only *like* businesses respects the qualitative characteristic of **comparability**; benchmarks also differ by industry, so a “good” QAR for a cash-based retailer differs from that of a business selling largely on credit.

Why the WCR and QAR can tell different stories. A business can report a **healthy WCR** yet a **weak QAR**. This happens when a **large proportion of its current assets is inventory**: the WCR counts that inventory in full, flattering the ratio, while the QAR strips it out and reveals how little truly liquid cover remains. Two businesses with an **identical WCR** can therefore have very different QARs — the one holding mostly cash and receivables is far more able to meet its immediate debts than the one holding mostly inventory. Reading the QAR **alongside** the WCR shows **how much of a business's apparent liquidity depends on selling stock**.

Cash Flow Cover — a cash-based liquidity indicator (revisited). The **Cash Flow Cover (CFC)**, first met in 11B, measures **how many times** a business's operating cash flow could cover (pay off) its current liabilities:

$$\text{Cash Flow Cover} = \frac{\text{Net cash flows from Operating activities}}{\text{Average current liabilities}}$$

where

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

The result is expressed as a number of **times (per period)**, conventionally to **one decimal place**. Operating cash flow is a **flow** measured across the whole period, whereas current liabilities are a **balance** at a point in time, so the **average** of the opening and closing current-liability balances is used to make the comparison like-with-like. A CFC of **2.0 times** means the cash generated by one period's trading was **twice** the average level of current liabilities carried through the period.

Static ratios versus a cash-flow indicator. The WCR and the QAR are **static** measures: each is a snapshot taken from the **Balance Sheet on one day** (balance day), comparing asset *balances* with liability *balances*. The Cash Flow Cover is a **dynamic, flow** measure: it looks at the **cash actually generated** by the business's trading **across the whole period** relative to the short-term debts that cash must service. A business can look liquid on balance day (strong WCR and QAR) yet be slow to turn those assets into cash — a weakness only the CFC exposes. Conversely, a business generating strong operating cash (high CFC) has real cash coming in to meet its debts, whatever a single day's balances show.

Reading WCR, QAR and CFC together. Each indicator views liquidity from a different angle:

- **Working Capital Ratio** — do **all** current assets cover current liabilities? (the broadest measure of short-term asset cover).
- **Quick Asset Ratio** — do the **liquid** current assets cover the **immediate** liabilities? (a stricter test that excludes slow-moving inventory and non-cash prepaid expenses).
- **Cash Flow Cover** — is the business actually **generating cash from trading** fast enough to service its short-term debts? (a cash measure, not just a balance of assets).

A complete judgement about liquidity reads **all three**, together with the **trend** over time and a comparison with **similar businesses**. Some common patterns:

- **Healthy WCR, healthy QAR, healthy CFC** — strong liquidity from every angle: ample asset cover, ample *liquid* cover, and strong cash generation.
- **Healthy WCR but weak (sub-1) QAR** — the business's apparent liquidity depends heavily on **selling inventory**; the CFC then shows whether cash generation is strong enough to compensate.
- **Healthy WCR and QAR but weak CFC** — the balance-sheet assets *look* liquid but are **not converting into cash** (for example, receivables are being collected slowly or inventory is building up) — a warning the static ratios alone would miss.

Worked model. Tarraville Traders reports the Balance Sheet extract below as at 30 June 2026. Its net cash flows from operating activities for the year were \$76 000, and its current liabilities were \$36 000 at the start of the year.

Balance Sheet (extract) as
at 30 June 2026

\$

\$

Current Assets

Accounts Receivable	33 000
Inventory	55 000
Prepaid insurance	2 000

Total Current Assets 90 000

Current Liabilities

Bank overdraft	8 000
Accounts Payable	30 000
GST Clearing	2 000

Total Current Liabilities 40 000

The **Working Capital Ratio** is a comfortable **2.25 : 1** (90 000 : 40 000). But the **Quick Asset Ratio** tells a different story:

Quick Asset Ratio

Working	Result
Quick assets = current assets – inventory – prepaid = \$90 000 – \$55 000 – \$2 000	\$33 000
Current liabilities (the \$8 000 bank overdraft stays in)	\$40 000
Quick Asset Ratio = \$33 000 : \$40 000	0.83 : 1

At **0.83 : 1**, Tarraville's quick assets **fall short of** its current liabilities. The gap between the healthy WCR (2.25) and the sub-1 QAR (0.83) is explained by the **\$55 000 of inventory**: most of the business's current-asset cover is stock that must first be sold. The **Cash Flow Cover** provides reassurance:

Cash Flow Cover

Working	\$
Average current liabilities (36 000 + 40 000) ÷ 2	38 000
Net cash flows from Operating activities	76 000
Cash Flow Cover = 76 000 ÷ 38 000	2.0 times

Read together: the WCR looks strong, but the QAR shows liquidity is **inventory-dependent**; the CFC of **2.0 times** shows the business generates operating cash at twice its average current liabilities, so it can still service its short-term debts from trading. Tarraville's liquidity is **adequate but reliant on its inventory continuing to sell**.

Worked examples (scaffolded)

Example 1 — calculating the Quick Asset Ratio and contrasting it with the WCR

Bellhaven Homewares reports the Balance Sheet extract below as at 30 June 2026.

Balance Sheet (extract) as
at 30 June 2026

\$

\$

Current Assets

Bank	9 000
Accounts Receivable	21 000
Inventory	48 000
Prepaid rent	2 000

Balance Sheet (extract) as
at 30 June 2026

	\$	\$
Total Current Assets		80 000
Current Liabilities		
Accounts Payable	28 000	
GST Clearing	2 000	
Total Current Liabilities		30 000

Working	Comment
Working Capital Ratio = \$80 000 : \$30 000 = 2.67 : 1 .	All current assets compared with all current liabilities — a comfortable ratio.
Quick assets = \$80 000 – \$48 000 – \$2 000 = \$30 000 .	Strip out inventory (\$48 000) and the prepaid rent (\$2 000); what remains is the Bank (\$9 000) and Accounts Receivable (\$21 000).
Current liabilities = \$30 000 .	The denominator of the QAR is the whole of the current liabilities — here there is no bank overdraft in any case.
Quick Asset Ratio = \$30 000 : \$30 000 = 1.00 : 1 .	Quick assets exactly equal the current liabilities.

Quick Asset Ratio

Working	Result
Quick assets = \$80 000 – \$48 000 – \$2 000	\$30 000
Current liabilities	\$30 000
Quick Asset Ratio = \$30 000 : \$30 000	1.00 : 1

The WCR of **2.67 : 1** looks strong, but the QAR of exactly **1.00 : 1** shows Bellhaven's liquid assets only just cover its immediate debts. The difference is the **\$48 000 of inventory** counted in the WCR but excluded from the QAR: without selling that stock, the business can cover its short-term debts but has no margin to spare.

Example 2 — calculating and interpreting the Cash Flow Cover

Calder & Rowe Stationers generated **\$84 000** in net cash flows from operating activities for the year ended 30 June 2026. Its current liabilities were **\$24 000** at the start of the year and **\$32 000** at the end. Calculate the Cash Flow Cover and interpret it.

Working	Comment
Average current liabilities = (\$24 000 + \$32 000) ÷ 2 = \$28 000 .	Average the opening and closing balances — a period-long cash flow is being compared with a balance.
Cash Flow Cover = \$84 000 ÷ \$28 000 = 3.0 times .	Divide operating cash by average current liabilities; express the result in times, to one decimal place.
A cover of 3.0 means operating cash was three times the average current liabilities.	The business could pay off its short-term debts three times over from one year's operating cash.

Cash Flow Cover

Working	\$
Average current liabilities (24 000 + 32 000) ÷ 2	28 000
Net cash flows from Operating activities	84 000
Cash Flow Cover = 84 000 ÷ 28 000	3.0 times

At **3.0 times**, Calder & Rowe generates operating cash comfortably in excess of its current liabilities — a strong cash-based liquidity position. Whether this is satisfactory over time depends on how it compares with the business's own earlier years and with similar stationery retailers.

Worked examples (unscaffolded)

Example 3 — reading the WCR, QAR and Cash Flow Cover together

Morningside Cycles reports the Balance Sheet extract below as at 30 June 2026. Its net cash flows from operating activities for the year were \$72 000, and its current liabilities were \$46 000 at the start of the year. Calculate the WCR, the QAR and the Cash Flow Cover, and assess the business's liquidity.

Balance Sheet (extract) as
at 30 June 2026

	\$	\$
Current Assets		
Accounts Receivable	30 000	
Inventory	70 000	
Prepaid insurance	4 000	
Total Current Assets		104 000
Current Liabilities		
Bank overdraft	10 000	
Accounts Payable	34 000	
GST Clearing	4 000	
Accrued wages	2 000	
Total Current Liabilities		50 000

Working Capital Ratio = \$104 000 : \$50 000 = **2.08 : 1**. Quick assets = \$104 000 – \$70 000 – \$4 000 = \$30 000; current liabilities = \$50 000 (the \$10 000 bank overdraft stays in); Quick Asset Ratio = \$30 000 : \$50 000 = **0.60 : 1**. Average current liabilities = (\$46 000 + \$50 000) ÷ 2 = \$48 000; Cash Flow Cover = \$72 000 ÷ \$48 000 = **1.5 times**.

The WCR of 2.08 : 1 is close to the usual benchmark and looks adequate, but the QAR of **0.60 : 1** is well below 1 : 1 — Morningside's quick assets cover only about **60%** of its current liabilities, because **\$70 000 of its \$104 000 current assets is inventory**. Its liquidity therefore depends heavily on that stock continuing to sell. The Cash Flow Cover of **1.5 times** is reassuring: operating cash still runs at one-and-a-half times average current liabilities, so the business is genuinely generating cash to service its short-term debts.

∴ Morningside's liquidity is **acceptable but inventory-dependent** — the sub-1 QAR is a caution, but the positive Cash Flow Cover shows trading is producing the cash needed to meet its obligations.

Example 4 — why the QAR excludes inventory and prepaid expenses

Aldgate Furniture and Brookvale Furniture each report a **Working Capital Ratio of 2.50 : 1** on total current assets of \$100 000 and total current liabilities of \$40 000. Their current assets are made up as follows. Calculate each business's QAR and explain what the WCR hides.

Current assets	Aldgate \$	Brookvale \$
Bank	20 000	4 000
Accounts Receivable	36 000	20 000
Inventory	40 000	72 000
Prepaid insurance	4 000	4 000
Total Current Assets	100 000	100 000

Aldgate: quick assets = \$100 000 – \$40 000 – \$4 000 = \$56 000; QAR = \$56 000 : \$40 000 = **1.40 : 1**. Brookvale: quick assets = \$100 000 – \$72 000 – \$4 000 = \$24 000; QAR = \$24 000 : \$40 000 = **0.60 : 1**.

Both businesses show an identical WCR of 2.50 : 1, yet their immediate liquidity is completely different. Aldgate holds most of its current assets as Bank and Accounts Receivable, so its quick assets (\$56 000) comfortably exceed its immediate liabilities — a QAR of 1.40 : 1. Brookvale's current assets are dominated by **\$72 000 of inventory**, so once that stock is removed only \$24 000 of quick assets remain, and its QAR falls to 0.60 : 1 — it could not meet its immediate debts without first selling inventory. This is exactly why the QAR **excludes inventory** (two steps from cash: it must be sold, then any resulting receivable collected) and **prepaid expenses** (already paid, and consumed as a service, so never reconverted into cash).

∴ the QAR is a stricter, more revealing test than the WCR: it exposes how much of a business's apparent liquidity is really tied up in stock.

Practice questions — scaffolded

Question 1

Fernbrook Supplies reports the Balance Sheet extract below as at 30 June 2026.

Balance Sheet (extract) as at 30 June 2026	\$	\$
Current Assets		
Bank	11 000	
Accounts Receivable	25 000	
Inventory	40 000	
Prepaid insurance	4 000	
Total Current Assets		80 000
Current Liabilities		
Accounts Payable	34 000	
GST Clearing	6 000	
Total Current Liabilities		40 000

- Calculate the quick assets and state the current liabilities.
- Calculate the Quick Asset Ratio.
- State whether the business could meet its immediate debts from its quick assets, and justify your answer in one sentence.

Question 2

Harlow Tools reports the Balance Sheet extract below as at 30 June 2026.

Balance Sheet (extract) as at 30 June 2026	\$	\$
Current Assets		
Accounts Receivable	24 000	
Inventory	50 000	
Prepaid rent	2 000	
Total Current Assets		76 000
Current Liabilities		
Bank overdraft	6 000	
Accounts Payable	26 000	
GST Clearing	6 000	
Total Current Liabilities		38 000

- Calculate the Working Capital Ratio.

- b. Calculate the Quick Asset Ratio.
- c. Explain, in one or two sentences, why the Quick Asset Ratio is so much lower than the Working Capital Ratio.

Question 3

Delmore Cafe generated **\$90 000** in net cash flows from operating activities for the year ended 30 June 2026. Its current liabilities were **\$28 000** at the start of the year and **\$32 000** at the end.

- a. Calculate the average current liabilities.
- b. Calculate the Cash Flow Cover.
- c. Interpret the result in one sentence.

Question 4

Kingsley Retail reports a **Working Capital Ratio of 2.40 : 1**, a **Quick Asset Ratio of 0.80 : 1** and a **Cash Flow Cover of 2.20 times** for the year ended 30 June 2026.

- a. State what each of the three indicators measures.
- b. Explain why the Working Capital Ratio can look healthy while the Quick Asset Ratio is below 1 : 1.
- c. Explain how the Cash Flow Cover helps complete the picture of Kingsley's liquidity.

Question 5

Oakridge Electrical reports the Balance Sheet extract below as at 30 June 2026.

Balance Sheet (extract) as
at 30 June 2026

	\$	\$
Current Assets		
Bank	14 000	
Accounts Receivable	22 000	
Inventory	30 000	
Prepaid insurance	4 000	
Total Current Assets		70 000
Current Liabilities		
Accounts Payable	30 000	
GST Clearing	5 000	
Total Current Liabilities		35 000

- a. Calculate the quick assets.
- b. Calculate the Quick Asset Ratio.
- c. Calculate the Working Capital Ratio, and state in one sentence what the difference between the two ratios reveals.

Question 6

Tamboor Freight reports net cash flows from operating activities of **\$96 000** in 2025 and **\$92 000** in 2026. Its current liabilities were \$26 000 at 1 July 2024, \$38 000 at 30 June 2025, and \$54 000 at 30 June 2026.

- a. Calculate the Cash Flow Cover for each year.
- b. State whether the coverage has strengthened or weakened, and by how many times.
- c. Explain one implication of the change for the business.

Practice questions — unscaffolded

Question 7

Westbrook Timber reports the Balance Sheet extract below as at 30 June 2026. Calculate the Quick Asset Ratio.

Balance Sheet (extract) as
at 30 June 2026

\$

\$

Current Assets

Accounts Receivable	27 000
Inventory	45 000
Prepaid insurance	3 000

Total Current Assets	75 000
-----------------------------	--------

Current Liabilities

Bank overdraft	5 000
Accounts Payable	28 000
GST Clearing	7 000

Total Current Liabilities	40 000
----------------------------------	--------

Question 8

Pinehurst Sports reports the Balance Sheet extract below as at 30 June 2026. Calculate the Quick Asset Ratio.

Balance Sheet (extract) as
at 30 June 2026

\$

\$

Current Assets

Bank	16 000
Accounts Receivable	20 000
Inventory	36 000
Prepaid rent	4 000

Total Current Assets	76 000
-----------------------------	--------

Current Liabilities

Accounts Payable	32 000
GST Clearing	8 000

Total Current Liabilities	40 000
----------------------------------	--------

Question 9

Ravenswood Bakery generated **\$70 000** in net cash flows from operating activities for the year ended 30 June 2026. Its current liabilities were **\$26 000** at the start of the year and **\$30 000** at the end. Calculate the Cash Flow Cover.

Question 10

Ashgrove Furniture reports the Balance Sheet extract below as at 30 June 2026. Calculate the Working Capital Ratio and the Quick Asset Ratio, and explain why the Quick Asset Ratio is so much lower.

Balance Sheet (extract) as
at 30 June 2026

\$

\$

Current Assets

Bank	8 000
Accounts Receivable	24 000
Inventory	84 000

Balance Sheet (extract) as at 30 June 2026	\$	\$
Prepaid insurance	4 000	
Total Current Assets		120 000
Current Liabilities		
Accounts Payable	44 000	
GST Clearing	6 000	
Total Current Liabilities		50 000

Question 11

Bracken Ridge Trading reports the Balance Sheet extract below as at 30 June 2026. During the year its net cash flows from operating activities were \$81 000, and its current liabilities stood at \$40 000 on 1 July 2025. Calculate the WCR, the QAR and the Cash Flow Cover, and assess the business's liquidity.

Balance Sheet (extract) as at 30 June 2026	\$	\$
Current Assets		
Accounts Receivable	34 000	
Inventory	58 000	
Prepaid insurance	8 000	
Total Current Assets		100 000
Current Liabilities		
Bank overdraft	12 000	
Accounts Payable	30 000	
GST Clearing	8 000	
Total Current Liabilities		50 000

Question 12

Lindale Retail and Merrivale Retail each report a **Working Capital Ratio of 2.00 : 1** on total current assets of \$80 000 and total current liabilities of \$40 000. Their current assets are made up as follows. Calculate each business's Quick Asset Ratio, and state which business is more liquid and why.

Current assets	Lindale \$	Merrivale \$
Bank	18 000	4 000
Accounts Receivable	30 000	12 000
Inventory	28 000	60 000
Prepaid insurance	4 000	4 000
Total Current Assets	80 000	80 000

Question 13

Corryong Motors reports net cash flows from operating activities of **\$102 000** in 2025 and **\$80 000** in 2026. Its current liabilities were \$30 000 at 1 July 2024, \$38 000 at 30 June 2025, and \$42 000 at 30 June 2026. Calculate the Cash Flow Cover for each year, and discuss what has driven the change.

Question 14

Halden Trading reports a **Quick Asset Ratio of 1.25 : 1**. Its current liabilities total \$38 000, including a \$6 000 bank overdraft. Calculate the value of its quick assets.

Question 15

Explain why the Quick Asset Ratio **excludes inventory and prepaid expenses** from the current assets, referring to how each of these items behaves in relation to cash. State what makes up the **denominator** of the ratio.

Question 16

Nyah Interiors reports a **Working Capital Ratio of 2.60 : 1** and a **Quick Asset Ratio of 1.30 : 1** — both healthy. However, its net cash flows from operating activities for the year ended 30 June 2026 were only **\$32 000**, and its current liabilities were **\$38 000** at the start of the year and **\$42 000** at the end. Calculate the Cash Flow Cover, and explain how a business can show healthy balance-sheet liquidity ratios yet a weak Cash Flow Cover, and what this signals.

Question 17

Girraween Hardware reports the Balance Sheet extracts below for two successive years. Calculate the Working Capital Ratio and the Quick Asset Ratio for each year, and discuss what the change in the two ratios reveals about the business's liquidity.

Current assets	2025 \$	2026 \$
Bank	12 000	6 000
Accounts Receivable	32 000	22 000
Inventory	40 000	68 000
Prepaid insurance	4 000	4 000
Total Current Assets	88 000	100 000
Total Current Liabilities	40 000	44 000

(There is no bank overdraft in either year.)

Question 18

Yarragon Marine reports the Balance Sheet extract below as at 30 June 2026. Its net cash flows from operating activities for the year were \$60 000, and its current liabilities were \$48 000 at the start of the year. In the previous year its Quick Asset Ratio was 1.00 : 1 and its Cash Flow Cover was 1.6 times. Calculate the WCR, the QAR and the Cash Flow Cover, read them together against the prior year, and evaluate the business's liquidity.

Balance Sheet (extract) as
at 30 June 2026

	\$	\$
Current Assets		
Accounts Receivable	40 000	
Inventory	66 000	
Prepaid insurance	6 000	
Total Current Assets		112 000
Current Liabilities		
Bank overdraft	8 000	
Accounts Payable	40 000	
GST Clearing	4 000	
Accrued interest	4 000	
Total Current Liabilities		56 000

Answers

1.
 - a. Quick assets \$36 000; current liabilities \$40 000 b. 0.90 : 1 c. No — quick assets cover only 90% of current liabilities
2.
 - a. 2.00 : 1 b. 0.63 : 1 c. \$50 000 inventory (and \$2 000 prepaid) excluded from quick assets
3.
 - a. \$30 000 b. 3.0 times c. Strong — operating cash three times current liabilities
4. See solutions
5.
 - a. \$36 000 b. 1.03 : 1 c. 2.00 : 1
6.
 - a. 2025 = 3.0 times; 2026 = 2.0 times b. Weakened, by 1.0 time
7. 0.68 : 1 (quick assets \$27 000; current liabilities \$40 000)
8. 0.90 : 1 (quick assets \$36 000; current liabilities \$40 000)
9. 2.5 times (average current liabilities \$28 000)
10. WCR 2.40 : 1; QAR 0.64 : 1; \$84 000 inventory dominates current assets
11. WCR 2.00 : 1; QAR 0.68 : 1; Cash Flow Cover 1.8 times
12. Lindale 1.20 : 1; Merrivale 0.40 : 1; Lindale is more liquid
13. 2025 = 3.0 times; 2026 = 2.0 times; weakened, by 1.0 time (mainly falling operating cash)
14. \$47 500 (current liabilities \$38 000 $\times$ 1.25)
15. See solutions
16. 0.8 times (average current liabilities \$40 000)
17. 2025: WCR 2.20 : 1, QAR 1.10 : 1; 2026: WCR 2.27 : 1, QAR 0.64 : 1
18. WCR 2.00 : 1; QAR 0.71 : 1; Cash Flow Cover 1.2 times (both down on the prior year)

Fully-worked solutions

Question 1

- a. Quick assets = \$80 000 – \$40 000 (inventory) – \$4 000 (prepaid) = **\$36 000** (the Bank \$11 000 + Accounts Receivable \$25 000). The current liabilities are **\$40 000** (there is no bank overdraft).

Quick Asset Ratio

Working	Result
Quick assets = \$80 000 – \$40 000 – \$4 000	\$36 000
Current liabilities	\$40 000
Quick Asset Ratio = \$36 000 : \$40 000	0.90 : 1

- b. Quick Asset Ratio = \$36 000 : \$40 000 = **0.90 : 1**.
- c. **No** — at 0.90 : 1 Fernbrook's quick assets cover only 90% of its immediate liabilities, so it could not meet those debts from cash and receivables alone and would have to rely on selling inventory to make up the shortfall.

Question 2

- a. Working Capital Ratio = \$76 000 : \$38 000 = **2.00 : 1**.
- b. Quick assets = \$76 000 – \$50 000 – \$2 000 = \$24 000; the current liabilities are \$38 000 (the \$6 000 bank overdraft is a current liability and stays in).

Quick Asset Ratio

Working	Result
Quick assets = \$76 000 – \$50 000 – \$2 000	\$24 000
Current liabilities	\$38 000
Quick Asset Ratio = \$24 000 : \$38 000	0.63 : 1

Quick Asset Ratio = \$24 000 : \$38 000 = **0.63 : 1**.

- c. The QAR (0.63 : 1) is far below the WCR (2.00 : 1) because the largest current asset — **\$50 000 of inventory** — together with the \$2 000 prepaid expense is **excluded from the quick assets**, while the denominator remains the **full \$38 000 of current liabilities**. Stripping out the inventory leaves only \$24 000 of liquid assets against \$38 000 of current liabilities, revealing that Harlow’s apparent liquidity depends heavily on selling its stock.

Question 3

- a. Average current liabilities = (\$28 000 + \$32 000) ÷ 2 = **\$30 000**.
- b. Cash Flow Cover = \$90 000 ÷ \$30 000 = **3.0 times**.
- c. Delmore’s operating cash was **three times** its average current liabilities, so one year’s operating cash could cover its short-term debts three times over — a strong cash-based liquidity position.

Question 4

- a. The **Working Capital Ratio** measures whether **all** current assets cover current liabilities (broad short-term asset cover); the **Quick Asset Ratio** measures whether the **liquid** current assets (cash and receivables, excluding inventory and prepaid expenses) cover the **immediate** liabilities; the **Cash Flow Cover** measures how many times the **cash generated from operations** could cover the average current liabilities.
- b. The WCR counts **all** current assets, including inventory, so a business holding a large amount of inventory can show a healthy WCR. The QAR **excludes** inventory (and prepaid expenses), so if much of Kingsley’s current-asset cover is inventory, its QAR falls below 1 : 1 even though its WCR looks comfortable — the two ratios differ because one includes slow-moving stock and the other does not.
- c. The WCR and QAR are **static** snapshots of balances on one day; the Cash Flow Cover shows whether the business is actually **generating cash** from trading to meet its debts. Kingsley’s Cash Flow Cover of **2.20 times** means its operating cash was more than twice its average current liabilities, which is reassuring: despite the sub-1 QAR, the business is producing real cash from operations to service its short-term obligations, so its overall liquidity is stronger than the QAR alone would suggest.

Question 5

- a. Quick assets = \$70 000 – \$30 000 (inventory) – \$4 000 (prepaid) = **\$36 000** (Bank \$14 000 + Accounts Receivable \$22 000).

Quick Asset Ratio

Working	Result
Quick assets = \$70 000 – \$30 000 – \$4 000	\$36 000
Current liabilities	\$35 000
Quick Asset Ratio = \$36 000 : \$35 000	1.03 : 1

- b. Quick Asset Ratio = \$36 000 : \$35 000 = **1.03 : 1**.
- c. Working Capital Ratio = \$70 000 : \$35 000 = **2.00 : 1**. The gap between the WCR (2.00) and the QAR (1.03) shows that once the \$30 000 of inventory is stripped out, Oakridge’s liquid assets only just cover its immediate liabilities — most of its current-asset cover is stock rather than cash and receivables.

Question 6

- a. 2025: average current liabilities = $(\$26\,000 + \$38\,000) \div 2 = \$32\,000$; Cash Flow Cover = $\$96\,000 \div \$32\,000 = \mathbf{3.0\,times}$. 2026: average current liabilities = $(\$38\,000 + \$54\,000) \div 2 = \$46\,000$; Cash Flow Cover = $\$92\,000 \div \$46\,000 = \mathbf{2.0\,times}$.
- b. The coverage has **weakened, by 1.0 time** (from 3.0 to 2.0).
- c. Operating cash fell only slightly (from \$96 000 to \$92 000) while average current liabilities rose sharply (from \$32 000 to \$46 000), so the business now covers its short-term debts only twice over from operating cash rather than three times. Although still adequate, the trend is unfavourable: if it continues, Tamboor's cash generation may struggle to keep pace with its growing short-term obligations, so management should investigate why current liabilities have climbed.

Question 7

Quick assets = $\$75\,000 - \$45\,000$ (inventory) $- \$3\,000$ (prepaid) = $\$27\,000$; the current liabilities are $\$40\,000$ (the $\$5\,000$ bank overdraft stays in).

Quick Asset Ratio

Working	Result
Quick assets = $\$75\,000 - \$45\,000 - \$3\,000$	$\$27\,000$
Current liabilities	$\$40\,000$
Quick Asset Ratio = $\$27\,000 : \$40\,000$	$0.68 : 1$

Quick Asset Ratio = $\$27\,000 : \$40\,000 = \mathbf{0.68 : 1}$. Westbrook's quick assets cover only about two-thirds of its current liabilities, so it depends on selling inventory to meet its short-term debts.

Question 8

Quick assets = $\$76\,000 - \$36\,000$ (inventory) $- \$4\,000$ (prepaid) = $\$36\,000$ (Bank $\$16\,000$ + Accounts Receivable $\$20\,000$); the current liabilities are $\$40\,000$ (there is no bank overdraft).

Quick Asset Ratio

Working	Result
Quick assets = $\$76\,000 - \$36\,000 - \$4\,000$	$\$36\,000$
Current liabilities	$\$40\,000$
Quick Asset Ratio = $\$36\,000 : \$40\,000$	$0.90 : 1$

Quick Asset Ratio = $\$36\,000 : \$40\,000 = \mathbf{0.90 : 1}$.

Question 9

Average current liabilities = $(\$26\,000 + \$30\,000) \div 2 = \$28\,000$. Cash Flow Cover = $\$70\,000 \div \$28\,000 = \mathbf{2.5\,times}$. Ravenswood's operating cash was two-and-a-half times its average current liabilities — a sound cash-based liquidity position.

Question 10

Working Capital Ratio = $\$120\,000 : \$50\,000 = \mathbf{2.40 : 1}$. Quick assets = $\$120\,000 - \$84\,000 - \$4\,000 = \$32\,000$; the current liabilities are $\$50\,000$ (there is no bank overdraft).

Quick Asset Ratio

Working	Result
Quick assets = $\$120\,000 - \$84\,000 - \$4\,000$	$\$32\,000$

Working	Result
Current liabilities	\$50 000
Quick Asset Ratio = \$32 000 : \$50 000	0.64 : 1

Quick Asset Ratio = \$32 000 : \$50 000 = **0.64 : 1**. The QAR is far below the WCR because **\$84 000 of the \$120 000 current assets (70%) is inventory**. The WCR counts that inventory in full, giving a comfortable 2.40 : 1, but the QAR excludes it, leaving only \$32 000 of liquid assets against \$50 000 of immediate liabilities. Ashgrove's liquidity is therefore heavily dependent on selling its large inventory holding.

Question 11

Working Capital Ratio = \$100 000 : \$50 000 = **2.00 : 1**. Quick assets = \$100 000 – \$58 000 – \$8 000 = \$34 000; the current liabilities are \$50 000 (the \$12 000 bank overdraft stays in).

Quick Asset Ratio

Working	Result
Quick assets = \$100 000 – \$58 000 – \$8 000	\$34 000
Current liabilities	\$50 000
Quick Asset Ratio = \$34 000 : \$50 000	0.68 : 1

Cash Flow Cover

Working	\$
Average current liabilities (40 000 + 50 000) ÷ 2	45 000
Net cash flows from Operating activities	81 000
Cash Flow Cover = 81 000 ÷ 45 000	1.8 times

The WCR of 2.00 : 1 sits right on the usual benchmark, but the QAR of **0.68 : 1** is well below 1 : 1 — Bracken Ridge's quick assets fall well short of its current liabilities, because \$58 000 of inventory and \$8 000 of prepaid expenses are excluded. The Cash Flow Cover of **1.8 times** shows operating cash running at close to twice the average current liabilities, so the business is genuinely generating cash to meet its debts. Overall, liquidity is **weak on the quick-asset test and inventory-dependent**, but the positive Cash Flow Cover indicates trading is producing enough cash to service its short-term obligations.

Question 12

Lindale: quick assets = \$80 000 – \$28 000 – \$4 000 = \$48 000; QAR = \$48 000 : \$40 000 = **1.20 : 1**. Merrivale: quick assets = \$80 000 – \$60 000 – \$4 000 = \$16 000; QAR = \$16 000 : \$40 000 = **0.40 : 1**.

Although both report an identical Working Capital Ratio of 2.00 : 1, **Lindale is far more liquid**. Its quick assets (\$48 000) exceed its immediate liabilities, giving a QAR of 1.20 : 1, so it can meet its short-term debts from cash and receivables alone. Merrivale holds **\$60 000 of inventory** — three quarters of its current assets — so once that is excluded only \$16 000 of quick assets remain against \$40 000 of immediate liabilities (0.40 : 1). Merrivale could not pay its immediate debts without first selling a large amount of stock, so despite the matching WCR its true liquidity is much weaker.

Question 13

2025: average current liabilities = (\$30 000 + \$38 000) ÷ 2 = \$34 000; Cash Flow Cover = \$102 000 ÷ \$34 000 = **3.0 times**. 2026: average current liabilities = (\$38 000 + \$42 000) ÷ 2 = \$40 000; Cash Flow Cover = \$80 000 ÷ \$40 000 = **2.0 times**. The coverage has **weakened, by 1.0 time**.

The main driver is the **fall in operating cash**, from \$102 000 to \$80 000 — a drop of \$22 000, or more than a fifth — while average current liabilities rose only modestly (from \$34 000 to \$40 000). So the weakening is driven far more

by **shrinking operating cash** than by rising short-term debt: management should focus on why the business's trading generated so much less cash this year, since a sustained decline would leave Corryong less able to meet its current liabilities from operations.

Question 14

Rearranging the Quick Asset Ratio, quick assets = $\text{QAR} \times \text{current liabilities}$. The denominator is the **whole** of the current liabilities — the \$6 000 bank overdraft is itself a current liability and is **not** deducted — so quick assets = $1.25 \times \$38\,000 = \$47\,500$.

Question 15

The Quick Asset Ratio measures whether a business could meet its **immediate** debts from its **most liquid** assets, so from the **current assets** it excludes any item that does not behave like cash in the very short term:

- **Inventory** is excluded because it is the current asset **furthest from cash**. Before it can pay a debt it must first be **sold**, and where it is sold on credit the resulting **account receivable must then be collected** — two steps from cash. Its cash value is also uncertain, since slow-moving stock may have to be discounted to sell it.
- **Prepaid expenses** are excluded because the business has **already paid the cash out**; a prepaid expense will be **consumed as a service** (such as insurance cover or rent already paid for), so it will **never be reconverted into cash** and cannot be used to settle a debt. Removing these two items leaves genuinely **liquid assets** (chiefly cash and receivables) in the numerator. The **denominator is the whole of the current liabilities** — nothing is removed from it, so a **bank overdraft** (itself a current liability, repayable on demand) **stays in**. Comparing liquid assets with all the current liabilities makes the QAR a stricter, more realistic test of immediate liquidity than the Working Capital Ratio, which also counts slow-moving inventory as cover.

Question 16

Average current liabilities = $(\$38\,000 + \$42\,000) \div 2 = \$40\,000$. Cash Flow Cover = $\$32\,000 \div \$40\,000 = \mathbf{0.8 \text{ times}}$.

Nyah's Working Capital Ratio (2.60 : 1) and Quick Asset Ratio (1.30 : 1) are both healthy, yet its Cash Flow Cover is only **0.8 times** — below 1, meaning one year's operating cash would not even cover its average current liabilities once. This is possible because the WCR and QAR are **static** measures taken from the Balance Sheet on **one day**: they show the business *holds* plenty of current assets, including liquid ones such as receivables, but they say nothing about how **quickly** those assets are turning into cash. The Cash Flow Cover, a **flow** measure across the whole period, shows the business is actually generating **little cash** from its trading. The likely explanation is that assets are **not converting into cash** — for example, receivables are being collected slowly or cash is tied up in a growing inventory. It signals that, despite the reassuring balance-sheet ratios, Nyah may face a **cash-flow problem**: it looks liquid on paper but is not producing the cash it needs to service its debts, and management should investigate its collection of receivables and its inventory levels.

Question 17

2025: Working Capital Ratio = $\$88\,000 : \$40\,000 = \mathbf{2.20 : 1}$; quick assets = $\$88\,000 - \$40\,000 - \$4\,000 = \$44\,000$, so Quick Asset Ratio = $\$44\,000 : \$40\,000 = \mathbf{1.10 : 1}$. 2026: Working Capital Ratio = $\$100\,000 : \$44\,000 = \mathbf{2.27 : 1}$; quick assets = $\$100\,000 - \$68\,000 - \$4\,000 = \$28\,000$, so Quick Asset Ratio = $\$28\,000 : \$44\,000 = \mathbf{0.64 : 1}$.

The two ratios have moved in **opposite directions**. The Working Capital Ratio has **held steady, even edging up** (2.20 → 2.27 : 1), suggesting no liquidity problem — but the Quick Asset Ratio has **fallen sharply** (1.10 → 0.64 : 1), from comfortably above 1 : 1 to well below it. The reason is a **build-up of inventory**: stock has risen from \$40 000 to \$68 000, while the Bank has fallen (\$12 000 → \$6 000) and receivables have dropped (\$32 000 → \$22 000). Because the WCR counts the extra inventory in full, it masks the deterioration; only the QAR, which excludes inventory, reveals that Girraween's **liquid** cover has weakened badly. The business now depends heavily on selling a much larger inventory holding to meet its immediate debts — a genuine liquidity concern that the Working Capital Ratio alone would have hidden.

Question 18

Working Capital Ratio = $\$112\,000 : \$56\,000 = \mathbf{2.00 : 1}$. Quick assets = $\$112\,000 - \$66\,000 - \$6\,000 = \$40\,000$; the current liabilities are \$56 000 (the \$8 000 bank overdraft stays in).

Quick Asset Ratio

Working	Result
Quick assets = \$112 000 – \$66 000 – \$6 000	\$40 000
Current liabilities	\$56 000
Quick Asset Ratio = \$40 000 : \$56 000	0.71 : 1

Cash Flow Cover

Working	\$
Average current liabilities (48 000 + 56 000) ÷ 2	52 000
Net cash flows from Operating activities	60 000
Cash Flow Cover = 60 000 ÷ 52 000	1.2 times

Yarragon's Working Capital Ratio of 2.00 : 1 sits on the benchmark, but the Quick Asset Ratio of **0.71 : 1** is below 1 : 1 — quick assets cover only about 71% of current liabilities, because \$66 000 of inventory and \$6 000 of prepaid expenses are excluded. Against the prior year, the QAR has **fallen from 1.00 to 0.71 : 1** and the Cash Flow Cover has **slipped from 1.6 to 1.2 times**, so both the liquid-asset cover and the cash generation have weakened. The Cash Flow Cover of 1.2 still shows operating cash exceeding average current liabilities, so the business is not in immediate difficulty, but the combination of a sub-1 QAR and a falling Cash Flow Cover is a caution: Yarragon's liquidity is **inventory-dependent and deteriorating**. Management should aim to reduce the inventory holding and strengthen operating cash — for example by tightening the collection of receivables — before the trend worsens.

Chapter 19 Evaluating performance: liquidity — 19C Turnover indicators; Inventory Turnover

Theory

Sections 19A and 19B measured a business's **liquidity** — its ability to meet its short-term debts as they fall due — using two ratios taken at a single point in time. The **Working Capital Ratio** compares current assets with current liabilities (current assets ÷ current liabilities), and the **Quick Asset Ratio** strips out the current assets that cannot quickly become cash ((current assets – inventory – prepaid expenses) ÷ current liabilities). Both are **static** measures: they photograph the *balance* of current assets against current liabilities on **balance day** and ask whether there are enough short-term resources to cover short-term debts.

But liquidity is not only a question of *how much* a business holds against what it owes — it is also a question of **how quickly** those resources move. A dollar of inventory can only settle a debt once it has been **sold** and the proceeds **collected**; a dollar owed by a customer can only settle a debt once it has been **received**. Two businesses may report an identical Working Capital Ratio of 2 : 1, yet the one whose inventory sells in three weeks and whose customers pay within a month is far more genuinely liquid than the one whose inventory sits for four months and whose customers take three. The first business's current assets are turning into **cash** fast enough to meet its liabilities; the second's may not.

Speed (turnover) indicators measure this movement. They express, as an average **number of days**, how **fast** a current asset is converted into cash — or how fast a current liability must be settled. The three speed indicators are:

- **Inventory Turnover** — the average number of days a business takes to **sell** its inventory (this section).
- **Accounts Receivable Turnover** — the average number of days its credit customers take to **pay** the business (Section 19D).
- **Accounts Payable Turnover** — the average number of days the business takes to **pay its own suppliers** (Section 19D).

The first two together describe how quickly the **operating cycle** turns inventory into cash; the third describes how quickly that cash must flow back out to suppliers. This section covers the first — **Inventory Turnover** — and shows how it supports the liquidity picture built in 19A and 19B.

Inventory Turnover measures 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 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, spread across the whole period). Averaging the **opening** and **closing** inventory balances gives a figure that stands for 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 is compared against must also be measured at cost. Cost of Goods Sold is the **Cost of Sales** figure *plus* any **product costs** (such as **cartage inwards** or import duty) added in arriving at Gross Profit. It excludes period costs such as advertising and delivery to customers, which are not part of the cost of the inventory.
- **× 365** converts the result into a number of **days**. 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 sit on hand for longer before they are sold.

As with the liquidity ratios, one figure means little on its own; it is judged by **comparison** — against the same business in **earlier periods**, against **similar businesses**, and always with regard to the **nature** of the inventory. A greengrocer should turn perishable produce over in days; a jeweller selling high-value, low-volume stock may take months, and neither is “wrong”. Comparing only *like* businesses respects the qualitative characteristic of **comparability**.

Why faster turnover supports liquidity. In this chapter the point of Inventory Turnover is its effect on the business’s ability to pay its debts. Selling inventory quickly:

- **Shortens the operating cycle** — inventory becomes cash (or an account receivable that will soon become cash) sooner, so cash is available to pay expenses, suppliers and loans as they fall due.
- **Frees up cash** that would otherwise sit idle on the shelf, reducing the need to borrow or overdraw to bridge short-term gaps.
- **Lowers holding costs** (storage, insurance, handling) and cuts the **risk of obsolescence, spoilage, theft and damage**, so more of the inventory’s value is actually realised as cash.

The trade-off — turnover that is *too* fast. Faster is not limitlessly better. A very short turnover is usually achieved by holding **less** inventory, which raises the risk of **stockouts** — running out of popular lines, losing sales and disappointing customers who may go elsewhere. Turnover forced up by heavy **discounting** sells stock quickly but earns less on each sale, eroding the gross profit margin. Sound management therefore aims for a turnover **fast enough** to keep cash moving and stock fresh, but **not so fast** that the business cannot meet customer demand.

Linking Inventory Turnover to the Working Capital and Quick Asset ratios. Inventory Turnover explains *why* the two liquidity ratios can tell different stories, and *how much* to trust each:

- Inventory is a current asset, so it is counted in the **Working Capital Ratio**. But it is the **least liquid** current asset — it must first be **sold** (and, if sold on credit, **collected**) before it becomes cash. That is exactly why the **Quick Asset Ratio excludes inventory**: it tests whether the business could meet its current liabilities *without* relying on selling its stock.
- The **gap between the two ratios** therefore reflects how much of a firm’s short-term strength rests on inventory. A business with a healthy Working Capital Ratio but a weak Quick Asset Ratio is carrying a **large share of its current assets as inventory**.
- **Inventory Turnover tells the user how much to trust that Working Capital Ratio.** If inventory turns over **quickly** (a low number of days), it will convert into cash soon enough to help meet current liabilities — so a Working Capital Ratio that leans on inventory is still dependable, and a Quick Asset Ratio below 1 is less alarming than it looks. If inventory turns over **slowly** (a high number of days), the inventory buried in the Working Capital Ratio will **not** become cash in time, so that ratio **overstates** the firm’s true short-term liquidity and the Quick Asset Ratio’s warning should be taken seriously.

In short, **fast inventory turnover supports liquidity**: it keeps the operating cycle short, converts current assets into cash sooner, and makes both the Working Capital Ratio and the Quick Asset Ratio more reliable indicators of the firm’s real ability to pay its debts.

Worked model. Rosewood Interiors held inventory of \$42 000 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 = $(\$42\,000 + \$48\,000) \div 2 = \$45\,000$. Inventory Turnover = $\$45\,000 \times 365 \div \$365\,000 = 45.0$ days.

Inventory Turnover

Working	\$
Average inventory $(\$42\,000 + \$48\,000) \div$	45 000

Working	\$
2	
Cost of goods sold	365 000
Inventory Turnover = $45\,000 \times 365 \div 365\,000$	45.0 days

On average, Rosewood takes **45 days** to sell its inventory. Because most of a furnishings retailer's current assets are tied up in stock, this 45-day figure is what makes its Working Capital Ratio meaningful: the inventory is turning into cash roughly six or seven weeks after balance day, in time to help meet the current liabilities counted in that ratio.

Worked examples (scaffolded)

Example 1 — calculating Inventory Turnover and linking it to liquidity

Kingsley Hardware held inventory of \$30 000 at the start of the year ended 30 June 2026 and \$34 000 at the end. Cost of goods sold for the year was \$292 000. At 30 June 2026 its current assets were \$60 000 (Inventory \$34 000, Accounts Receivable \$20 000, Bank \$6 000) and its current liabilities were \$30 000. Calculate the Inventory Turnover and explain what it adds to the liquidity picture.

Working	Comment
Average inventory = $(\$30\,000 + \$34\,000) \div 2 = \mathbf{\$32\,000}$.	Average the opening and closing balances — a balance is compared with a period-long flow.
Inventory Turnover = $\$32\,000 \times 365 \div \$292\,000 = \mathbf{40.0\,days}$.	Multiply the average by 365, then divide by cost of goods sold; round to one decimal place.
Working Capital Ratio = $\$60\,000 \div \$30\,000 = \mathbf{2.00 : 1}$.	Enough current assets to cover current liabilities twice over — a healthy static figure.
Quick Asset Ratio = $(\$60\,000 - \$34\,000) \div \$30\,000 = \mathbf{0.87 : 1}$.	Stripping out inventory leaves quick assets just short of covering current liabilities.
Inventory (\$34 000) is more than half of current assets.	The gap between the two ratios is caused by inventory.

Liquidity indicators — Kingsley Hardware

Indicator	Value
Working Capital Ratio	2.00 : 1
Quick Asset Ratio	0.87 : 1
Inventory Turnover	40.0 days

The Working Capital Ratio of 2.00 : 1 looks comfortable, but the Quick Asset Ratio of 0.87 : 1 shows that without its inventory Kingsley could not quite cover its current liabilities — most of its short-term strength is stock. The Inventory Turnover of **40.0 days** is what makes that acceptable: the inventory is selling, and so converting into cash or receivables, in about six weeks, fast enough to meet the current liabilities as they fall due. Fast turnover therefore **supports** the Working Capital Ratio and softens the concern raised by the sub-1 Quick Asset Ratio.

Example 2 — interpreting a change over two years

Marigold Garden Centre reports the following:

Item	2025	2026
Opening inventory \$	56 000	64 000
Closing inventory \$	64 000	56 000
Cost of goods sold \$	438 000	547 500

Calculate the Inventory Turnover for each year and interpret the change for the business's liquidity.

Working	Comment
2025: average inventory = $(\$56\ 000 + \$64\ 000) \div 2 = \$60\ 000$.	Opening plus closing, divided by two.
2025: Inventory Turnover = $\$60\ 000 \times 365 \div \$438\ 000 = 50.0$ days.	The 2025 benchmark for the business.
2026: average inventory = $(\$64\ 000 + \$56\ 000) \div 2 = \$60\ 000$.	The 2025 closing balance becomes the 2026 opening balance.
2026: Inventory Turnover = $\$60\ 000 \times 365 \div \$547\ 500 = 40.0$ days.	Same average inventory, but a higher cost of goods sold pulls the figure down.
Change = $50.0 - 40.0 = 10.0$ days faster.	Fewer days means inventory is selling more quickly.

Marigold has held the same average level of inventory but sold more of it (cost of goods sold rose from \$438 000 to \$547 500), so its Inventory Turnover has fallen from 50.0 to 40.0 days — inventory now sells about **10 days faster**. For liquidity this is favourable: each dollar of inventory now becomes cash ten days sooner, shortening the operating cycle and improving the business's capacity to meet its current liabilities without straining its cash.

Worked examples (unscaffolded)

Example 3 — comparing the liquidity of two firms

Ashgrove Tiles and Beckett Tiles are competitors. For the year ended 30 June 2026, Ashgrove opened with inventory of \$40 000 and closed with \$44 000, with a cost of goods sold of \$511 000. Beckett opened with \$58 000 and closed with \$62 000, with a cost of goods sold of \$438 000. Both report a Working Capital Ratio of about 1.80 : 1. Calculate the Inventory Turnover for each and state which firm is the more liquid.

Ashgrove: average inventory = $(\$40\ 000 + \$44\ 000) \div 2 = \$42\ 000$; Inventory Turnover = $\$42\ 000 \times 365 \div \$511\ 000 = 30.0$ days. Beckett: average inventory = $(\$58\ 000 + \$62\ 000) \div 2 = \$60\ 000$; Inventory Turnover = $\$60\ 000 \times 365 \div \$438\ 000 = 50.0$ days.

Although the two firms report the same Working Capital Ratio, they are not equally liquid. Ashgrove turns its inventory over in 30 days against Beckett's 50 days, so Ashgrove's current assets convert into cash 20 days sooner. Its 1.80 : 1 Working Capital Ratio is therefore the more dependable of the two: the inventory it relies on will become cash quickly enough to meet its current liabilities, whereas Beckett's slower stock leaves the same ratio resting on assets that take noticeably longer to realise.

∴ on the strength of the speed indicator, **Ashgrove is the more genuinely liquid** business, despite the identical Working Capital Ratio.

Example 4 — building cost of goods sold, then judging liquidity

Pinehurst Timber reports, for the year ended 30 June 2026, cost of sales of \$267 000 and cartage inwards of \$25 000 (both part of the cost of the inventory sold). Opening inventory was \$22 000 and closing inventory was \$26 000. The business carries a Quick Asset Ratio of 0.70 : 1. Calculate the Inventory Turnover and comment on what it means for the low Quick Asset Ratio.

Cost of goods sold = cost of sales + cartage inwards = $\$267\ 000 + \$25\ 000 = \$292\ 000$ (cartage inwards is a product cost, so it forms part of the cost of the inventory sold). Average inventory = $(\$22\ 000 + \$26\ 000) \div 2 = \$24\ 000$; Inventory Turnover = $\$24\ 000 \times 365 \div \$292\ 000 = 30.0$ days.

A Quick Asset Ratio of 0.70 : 1 means that, setting inventory aside, Pinehurst holds only 70 cents of quick assets for every dollar of current liabilities — a figure that on its own suggests a liquidity problem. But the Inventory Turnover of 30 days shows the inventory the ratio excludes is selling fast: within about a month it will have become cash or accounts receivable.

∴ the fast turnover **partly offsets** the weak Quick Asset Ratio — the business is relying on inventory to stay liquid, but that inventory is realised quickly enough to make the reliance reasonable.

Practice questions — scaffolded

Question 1

Everton Stationers held inventory of \$26 000 at the start of the year ended 30 June 2026 and \$30 000 at the end. Cost of goods sold for the year was \$511 000.

- Calculate the average inventory.
- Calculate the Inventory Turnover in days.
- Explain in one sentence how this Inventory Turnover affects the business's liquidity.

Question 2

Sandbrook Sports reports:

Item	2025	2026
Opening inventory \$	40 000	44 000
Closing inventory \$	44 000	52 000
Cost of goods sold \$	438 000	438 000

- Calculate the Inventory Turnover for each year.
- State whether inventory is now selling faster or slower, and by how many days.
- Explain one implication of the change for the business's liquidity.

Question 3

Larkin Electrical and Marsden Electrical are competitors. For the year ended 30 June 2026, Larkin opened with inventory of \$34 000 and closed with \$38 000, with a cost of goods sold of \$438 000. Marsden opened with \$48 000 and closed with \$52 000, with a cost of goods sold of \$365 000.

- Calculate the Inventory Turnover for each firm.
- State which firm sells its inventory faster.
- Explain one reason the faster turnover makes that firm the more liquid.

Question 4

Thornbury Furniture held inventory of \$68 000 at the start of the year ended 30 June 2026 and \$72 000 at the end. Cost of goods sold for the year was \$511 000. At 30 June 2026 its current assets were \$100 000 (Inventory \$72 000, Accounts Receivable \$24 000, Bank \$4 000) and its current liabilities were \$50 000.

- Calculate the Inventory Turnover in days.
- Calculate the Working Capital Ratio and the Quick Asset Ratio, and state which current asset causes the gap between them.
- Discuss whether the Inventory Turnover makes the Working Capital Ratio a reliable measure of Thornbury's liquidity.

Question 5

Oakridge Pharmacy had a cost of goods sold of \$547 500 for the year. Before reviewing its ordering its **average inventory** was \$90 000; after the review its average inventory was \$63 000, with cost of goods sold unchanged.

- Calculate the Inventory Turnover before and after the review.
- State the improvement in days.
- Explain how the faster turnover improves liquidity, and state one risk if inventory is cut too far.

Question 6

Wentworth Pet Supplies held inventory of \$46 000 at the start of the year ended 30 June 2026 and \$42 000 at the end. Cost of goods sold for the year was \$365 000.

- Calculate the Inventory Turnover in days.
- Explain one trade-off of aiming for a much faster Inventory Turnover.
- Identify one piece of non-financial information that would help management interpret the result.

Practice questions — unscaffolded

Question 7

Halloran Toys held inventory of \$20 000 at the start of the year ended 30 June 2026 and \$22 000 at the end. Cost of goods sold for the year was \$255 500. Calculate the Inventory Turnover in days.

Question 8

Ferndale Auto Parts held inventory of \$62 000 at the start of the year ended 30 June 2026 and \$68 000 at the end. Cost of goods sold for the year was \$500 000. Calculate the Inventory Turnover in days.

Question 9

Brookmere Swim reports: opening inventory \$58 000 and closing inventory \$62 000 with a cost of goods sold of \$547 500 in 2025; opening inventory \$62 000 and closing inventory \$28 000 with a cost of goods sold of \$547 500 in 2026. Calculate the Inventory Turnover for each year, state whether inventory is selling faster or slower and by how many days, and explain the effect on liquidity.

Question 10

Cedarvale Grocers monitors two ranges for the year ended 30 June 2026. Its **fresh** range opened at \$6 000 and closed at \$8 000, with a cost of goods sold of \$255 500. Its **packaged** range opened at \$26 000 and closed at \$28 000, with a cost of goods sold of \$328 500. Calculate the Inventory Turnover for each range and explain which range's turnover is the more concerning for liquidity, and why.

Question 11

Sundale Nursery had a cost of goods sold of \$438 000 for the year, unchanged before and after it introduced a reorder-level and stock-rotation system. Before the system its **average inventory** was \$60 000; after the system was fully in place its average inventory was \$36 000. Calculate the Inventory Turnover before and after, and evaluate the effect on the business's liquidity.

Question 12

Kelmscott Kitchens held inventory of \$62 000 at the start of the year ended 30 June 2026 and \$70 000 at the end. Cost of goods sold for the year was \$438 000, and comparable kitchenware retailers turn their inventory over in about 40 days. Calculate the Inventory Turnover in days and discuss two strategies the business could use to turn its inventory over faster and so strengthen its liquidity.

Question 13

Rosalind Bakery held inventory of \$15 000 at the start of the year ended 30 June 2026 and \$17 000 at the end. Cost of goods sold for the year was \$292 000. Calculate the Inventory Turnover in days, and explain one trade-off the bakery must manage in pursuing such a fast turnover.

Question 14

Ashworth Jewellers held inventory of \$84 000 at the start of the year ended 30 June 2026 and \$96 000 at the end. Cost of goods sold for the year was \$438 000. Calculate the Inventory Turnover in days, explain one way the slow turnover weakens the business's liquidity, and give one reason the figure may nonetheless be acceptable for this type of business.

Question 15

Glenmore Tiles reports, for the year ended 30 June 2026, cost of sales of \$265 000 and cartage inwards of \$27 000 (both part of the cost of the inventory sold). Opening inventory was \$52 000 and closing inventory was \$60 000. Calculate the cost of goods sold and the Inventory Turnover in days.

Question 16

Verona Fashion had an **average inventory** of \$52 000 in 2025 and \$68 000 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 and what it might mean for liquidity.

Question 17

Bracken Timber reports, for the year ended 30 June 2026, cost of sales of \$512 000 and cartage inwards of \$35 500 (both part of the cost of the inventory sold). Opening inventory was \$58 000 and closing inventory was \$62 000. Calculate the cost of goods sold and the Inventory Turnover in days, and recommend one strategy the business could use to speed up its turnover and improve its liquidity.

Question 18

Rockcliffe Cookware overhauled its inventory management over two years. It reports: opening inventory \$84 000 and closing inventory \$72 000 with a cost of goods sold of \$438 000 in 2025; opening inventory \$72 000 and closing inventory \$66 000 with a cost of goods sold of \$547 500 in 2026. Calculate the Inventory Turnover for each year, evaluate the effect of the overhaul on the business's liquidity, and recommend one thing management should monitor.

Answers

1.
 - a. \$28 000 b. 20.0 days
2.
 - a. 2025 = 35.0 days; 2026 = 40.0 days b. Slower, by 5.0 days
3.
 - a. Larkin 30.0 days; Marsden 50.0 days b. Larkin
4.
 - a. 50.0 days b. WCR 2.00 : 1; QAR 0.56 : 1; inventory causes the gap
5.
 - a. 60.0 days; 42.0 days b. 18 days faster
6.
 - a. 44.0 days
7. 30.0 days (average inventory \$21 000)
8. 47.5 days (average inventory \$65 000)
9. 2025 = 40.0 days; 2026 = 30.0 days; faster, by 10 days
10. Fresh 10.0 days; packaged 30.0 days
11. Before 50.0 days; after 30.0 days; 20 days faster
12. 55.0 days (average inventory \$66 000)
13. 20.0 days (average inventory \$16 000)
14. 75.0 days (average inventory \$90 000)
15. Cost of goods sold \$292 000; 70.0 days
16. 2025 = 52.0 days; 2026 = 68.0 days; 16 days slower
17. Cost of goods sold \$547 500; 40.0 days
18. 2025 = 65.0 days; 2026 = 46.0 days; 19 days faster

Fully-worked solutions

Question 1

- a. Average inventory = $(\$26\,000 + \$30\,000) \div 2 = \mathbf{\$28\,000}$.
- b. Inventory Turnover = $\$28\,000 \times 365 \div \$511\,000 = \$10\,220\,000 \div \$511\,000 = \mathbf{20.0\ days}$.
- c. At 20 days, Everton's inventory converts into cash or accounts receivable quickly, keeping the operating cycle short and providing a steady flow of cash to meet current liabilities — so the fast turnover supports the business's liquidity.

Question 2

- a. 2025: average inventory = $(\$40\,000 + \$44\,000) \div 2 = \$42\,000$; Inventory Turnover = $\$42\,000 \times 365 \div \$438\,000 = \mathbf{35.0\ days}$. 2026: average inventory = $(\$44\,000 + \$52\,000) \div 2 = \$48\,000$; Inventory Turnover = $\$48\,000 \times 365 \div \$438\,000 = \mathbf{40.0\ days}$.
- b. The number of days has risen from 35.0 to 40.0, so inventory is selling **slower, by 5.0 days**.
- c. With cost of goods sold unchanged, Sandbrook is now holding a higher average level of inventory that takes longer to sell. Its inventory converts into cash five days later than before, lengthening the operating cycle and tying up more cash in stock — a small weakening of liquidity that makes its Working Capital Ratio marginally less dependable, since more of it now rests on slower-moving inventory.

Question 3

- a. Larkin: average inventory = $(\$34\,000 + \$38\,000) \div 2 = \$36\,000$; Inventory Turnover = $\$36\,000 \times 365 \div \$438\,000 = \$13\,140\,000 \div \$438\,000 = \mathbf{30.0\ days}$. Marsden: average inventory = $(\$48\,000 + \$52\,000) \div 2 = \$50\,000$; Inventory Turnover = $\$50\,000 \times 365 \div \$365\,000 = \$18\,250\,000 \div \$365\,000 = \mathbf{50.0\ days}$.
- b. **Larkin** sells its inventory faster — 30.0 days against Marsden's 50.0 days.

- c. Larkin's inventory becomes cash (or a receivable soon to become cash) 20 days sooner than Marsden's, so its current assets are realised more quickly to meet current liabilities as they fall due. For two firms with otherwise similar liquidity, the one whose inventory turns over faster has the shorter operating cycle and the more dependable liquidity, so Larkin is the more liquid.

Question 4

- a. Average inventory = $(\$68\,000 + \$72\,000) \div 2 = \$70\,000$; Inventory Turnover = $\$70\,000 \times 365 \div \$511\,000 = \$25\,550\,000 \div \$511\,000 = \mathbf{50.0\ days}$.
- b. Working Capital Ratio = $\$100\,000 \div \$50\,000 = \mathbf{2.00 : 1}$. Quick Asset Ratio = $(\$100\,000 - \$72\,000) \div \$50\,000 = \$28\,000 \div \$50\,000 = \mathbf{0.56 : 1}$. The gap between the two ratios is caused by **inventory**, which at \$72 000 is by far the largest current asset and is excluded from the Quick Asset Ratio.
- c. The Working Capital Ratio of 2.00 : 1 looks strong, but the Quick Asset Ratio of 0.56 : 1 shows that almost all of Thornbury's short-term strength is inventory — without it, the business holds only 56 cents of quick assets per dollar of current liabilities. Whether the 2.00 : 1 is reliable therefore depends on how fast that inventory sells. At **50 days** the turnover is moderate: the inventory will become cash in roughly seven weeks, which offers some support, but it is not fast, so a meaningful share of the current liabilities may fall due before the stock is realised. The Working Capital Ratio is thus only **partly** reliable here — the sub-1 Quick Asset Ratio is a genuine caution, and management should aim to lift the turnover so that the inventory the ratio depends on converts to cash sooner.

Question 5

- a. Before: Inventory Turnover = $\$90\,000 \times 365 \div \$547\,500 = \$32\,850\,000 \div \$547\,500 = \mathbf{60.0\ days}$. After: Inventory Turnover = $\$63\,000 \times 365 \div \$547\,500 = \$22\,995\,000 \div \$547\,500 = \mathbf{42.0\ days}$.
- b. The turnover has improved by **18 days** (from 60.0 to 42.0).
- c. Because cost of goods sold was unchanged, the whole improvement comes from holding less inventory. Selling its stock 18 days sooner means Oakridge converts inventory into cash faster, shortening the operating cycle and releasing cash that had been tied up on the shelf — strengthening its liquidity. The risk is **stockouts**: if the leaner inventory leaves the pharmacy short of the prescription lines and everyday items its customers rely on, lost sales and dissatisfied customers could outweigh the liquidity gain, so inventory must be lean without being inadequate.

Question 6

- a. Average inventory = $(\$46\,000 + \$42\,000) \div 2 = \$44\,000$; Inventory Turnover = $\$44\,000 \times 365 \div \$365\,000 = \$16\,060\,000 \div \$365\,000 = \mathbf{44.0\ days}$.
- b. A much faster turnover is usually bought either by holding **less** inventory or by **discounting** to clear stock quickly, and each carries a cost. Leaner stock raises the risk of **stockouts**: the business cannot supply popular lines when customers want them, so it loses the very sales that were to generate the cash the faster turnover was meant to bring in. Heavy discounting does move stock sooner, but it earns less on each sale and erodes the gross profit margin.
- c. Useful non-financial information includes the **number of stockouts, customer feedback or complaints, units sold per line, supplier lead times and delivery reliability, or wastage counts** — any of which would help management judge whether the 44-day figure can safely be shortened to bring cash in from inventory sooner.

Question 7

Average inventory = $(\$20\,000 + \$22\,000) \div 2 = \$21\,000$. Inventory Turnover = $\$21\,000 \times 365 \div \$255\,500 = \$7\,665\,000 \div \$255\,500 = \mathbf{30.0\ days}$.

Question 8

Average inventory = $(\$62\,000 + \$68\,000) \div 2 = \$65\,000$. Inventory Turnover = $\$65\,000 \times 365 \div \$500\,000 = \$23\,725\,000 \div \$500\,000 = \mathbf{47.5\ days}$ (47.45, rounded to one decimal place).

Question 9

2025: average inventory = $(\$58\,000 + \$62\,000) \div 2 = \$60\,000$; Inventory Turnover = $\$60\,000 \times 365 \div \$547\,500 = \$21\,900\,000 \div \$547\,500 = \mathbf{40.0\ days}$. 2026: average inventory = $(\$62\,000 + \$28\,000) \div 2 = \$45\,000$; Inventory Turnover = $\$45\,000 \times 365 \div \$547\,500 = \$16\,425\,000 \div \$547\,500 = \mathbf{30.0\ days}$. The turnover has fallen from 40.0 to 30.0 days, so inventory is selling **faster, by 10 days**. Brookmere is holding a lower average level of inventory while selling the same amount, so each dollar of stock becomes cash ten days sooner. This shortens the operating cycle and improves liquidity — cash is freed from the shelf and is available earlier to meet current liabilities — provided the leaner stock has not caused stockouts.

Question 10

Fresh: average inventory = $(\$6\,000 + \$8\,000) \div 2 = \$7\,000$; Inventory Turnover = $\$7\,000 \times 365 \div \$255\,500 = \$2\,555\,000 \div \$255\,500 = \mathbf{10.0\ days}$. Packaged: average inventory = $(\$26\,000 + \$28\,000) \div 2 = \$27\,000$; Inventory Turnover = $\$27\,000 \times 365 \div \$328\,500 = \$9\,855\,000 \div \$328\,500 = \mathbf{30.0\ days}$.

The **packaged** range's turnover is the more concerning for liquidity. The fresh range is perishable, and a 10-day turnover is exactly what its nature demands — it sells before it spoils and converts to cash almost immediately. Packaged goods keep for far longer, so a 30-day turnover is not dangerous in itself, but it ties cash up three times as long as the fresh range and is the slower contributor to the operating cycle; if management wanted to speed the conversion of current assets into cash, the packaged range — not the fresh — is where the opportunity lies.

Question 11

Before: Inventory Turnover = $\$60\,000 \times 365 \div \$438\,000 = \$21\,900\,000 \div \$438\,000 = \mathbf{50.0\ days}$. After: Inventory Turnover = $\$36\,000 \times 365 \div \$438\,000 = \$13\,140\,000 \div \$438\,000 = \mathbf{30.0\ days}$.

With cost of goods sold unchanged, the reorder-level and stock-rotation system has cut the average inventory held and improved the turnover by **20 days**. Selling inventory 20 days sooner shortens Sundale's operating cycle and releases cash that had been tied up in stock — for a nursery, whose plants can also deteriorate, it reduces spoilage as well. This is a clear gain in liquidity: current assets now convert into cash faster, making the business better able to meet its current liabilities. The strategy is **effective**, provided the lower stock levels have not caused the nursery to run out of popular plants; if stockouts have risen, the liquidity gain must be weighed against the lost sales.

Question 12

Average inventory = $(\$62\,000 + \$70\,000) \div 2 = \$66\,000$. Inventory Turnover = $\$66\,000 \times 365 \div \$438\,000 = \$24\,090\,000 \div \$438\,000 = \mathbf{55.0\ days}$. At 55.0 days Kelmscott is turning its inventory over about 15 days slower than the 40-day sector benchmark, so its inventory is slow to convert into cash and its liquidity is weaker than a comparable retailer's. Two strategies to turn inventory over faster: (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. Each lowers the average inventory relative to sales, shortening the turnover and speeding the conversion of inventory into cash — strengthening liquidity.

Question 13

Average inventory = $(\$15\,000 + \$17\,000) \div 2 = \$16\,000$. Inventory Turnover = $\$16\,000 \times 365 \div \$292\,000 = \$5\,840\,000 \div \$292\,000 = \mathbf{20.0\ days}$. A bakery's stock is highly perishable, so a 20-day turnover is both expected and good for liquidity — inventory becomes cash almost as fast as it is made. 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 in the pursuit of an even faster turnover, it risks **stockouts** and lost sales when customers arrive to find the shelves bare, which would cost the very sales and cash the fast turnover is meant to generate.

Question 14

Average inventory = $(\$84\,000 + \$96\,000) \div 2 = \$90\,000$. Inventory Turnover = $\$90\,000 \times 365 \div \$438\,000 = \$32\,850\,000 \div \$438\,000 = \mathbf{75.0\ days}$. Holding inventory for an average of 75 days weakens liquidity: a large amount of cash is tied up in unsold stock for two and a half months before it is realised, lengthening the operating cycle and leaving less

cash available to meet current liabilities — and if much of Ashworth's current assets sit in this slow inventory, its Working Capital Ratio will overstate its true short-term position. 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 because the stock does not perish the risk of obsolescence is low. The 75 days should be judged against **other jewellers**, not against a fast-moving retailer.

Question 15

Cost of goods sold = cost of sales + cartage inwards = \$265 000 + \$27 000 = **\$292 000** (cartage inwards is a product cost, so it forms part of the cost of the inventory sold). Average inventory = $(\$52\,000 + \$60\,000) \div 2 = \$56\,000$. Inventory Turnover = $\$56\,000 \times 365 \div \$292\,000 = \$20\,440\,000 \div \$292\,000 = \mathbf{70.0\ days}$.

Question 16

2025: Inventory Turnover = $\$52\,000 \times 365 \div \$365\,000 = \$18\,980\,000 \div \$365\,000 = \mathbf{52.0\ days}$. 2026: Inventory Turnover = $\$68\,000 \times 365 \div \$365\,000 = \$24\,820\,000 \div \$365\,000 = \mathbf{68.0\ days}$. With cost of goods sold unchanged, the turnover has slowed by **16 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. For liquidity the slower turnover is unfavourable — cash is tied up in stock 16 days longer, lengthening the operating cycle — so management should act on the underlying cause, such as marking down and clearing the dated stock and buying more conservatively.

Question 17

Cost of goods sold = cost of sales + cartage inwards = \$512 000 + \$35 500 = **\$547 500**. Average inventory = $(\$58\,000 + \$62\,000) \div 2 = \$60\,000$. Inventory Turnover = $\$60\,000 \times 365 \div \$547\,500 = \$21\,900\,000 \div \$547\,500 = \mathbf{40.0\ days}$. To speed up (lower) the turnover, Bracken 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. Faster turnover converts the timber into cash sooner, shortening the operating cycle and improving liquidity — while keeping enough on hand to avoid stockouts.

Question 18

2025: average inventory = $(\$84\,000 + \$72\,000) \div 2 = \$78\,000$; Inventory Turnover = $\$78\,000 \times 365 \div \$438\,000 = \$28\,470\,000 \div \$438\,000 = \mathbf{65.0\ days}$. 2026: average inventory = $(\$72\,000 + \$66\,000) \div 2 = \$69\,000$; Inventory Turnover = $\$69\,000 \times 365 \div \$547\,500 = \$25\,185\,000 \div \$547\,500 = \mathbf{46.0\ days}$.

The overhaul has cut the turnover from 65.0 to 46.0 days — inventory now sells **19 days faster**. Rockliffe is holding a lower average level of inventory *and* selling more (cost of goods sold rose from \$438 000 to \$547 500), so the improvement reflects both leaner stock and stronger sales. This is a strongly favourable result for liquidity: inventory converts into cash almost three weeks sooner, shortening the operating cycle, releasing cash from the shelf and making the business better able to meet its current liabilities — its Working Capital Ratio is now more dependable because the inventory within it turns over quickly. 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 the faster turnover does not start costing sales.

Chapter 19 Evaluating performance: liquidity — 19D Accounts Receivable and Accounts Payable Turnover

Theory

A trading business that buys and sells on credit sits between two flows of cash. On one side it collects cash from its **credit customers** (its accounts receivable); on the other it pays cash to its **credit suppliers** (its accounts payable). How **liquid** the business is — how easily it can meet its short-term debts as they fall due — depends heavily on the **timing** of these two flows: how quickly cash comes *in* from customers relative to how quickly it must go *out* to suppliers. Two indicators measure that speed, and this section brings them together as the **cash-cycle pair**.

Accounts Receivable Turnover. The **Accounts Receivable Turnover (ARTO)** measures the **average number of days** the business's credit customers take to pay:

$$\text{ARTO (days)} = \frac{\text{Average Accounts Receivable}}{\text{Net Credit Sales (plus GST)}} \times 365$$

where

- **Average Accounts Receivable** = (Opening Accounts Receivable + Closing Accounts Receivable) ÷ 2;
- **Net Credit Sales** = credit sales – sales returns (the GST-exclusive figures);
- **(plus GST)** grosses the net credit sales up by 10% (× 1.1), because the Accounts Receivable balance is recorded **GST-inclusive** (a credit sale debits Accounts Receivable with the full GST-inclusive total), so the denominator must be GST-inclusive too for a valid *like-with-like* comparison.

Accounts Payable Turnover. The **Accounts Payable Turnover (APTO)** measures the **average number of days** the business takes to pay its trade suppliers:

$$\text{APTO (days)} = \frac{\text{Average Accounts Payable}}{\text{Net Credit Purchases (plus GST)}} \times 365$$

where

- **Average Accounts Payable** = (Opening Accounts Payable + Closing Accounts Payable) ÷ 2;
- **Net Credit Purchases** = credit purchases – purchase returns (the GST-exclusive figures);
- **(plus GST)** grosses the net credit purchases up by 10% (× 1.1), because the Accounts Payable balance is likewise recorded **GST-inclusive**.

Both indicators multiply by **365** to express the answer in **days**, conventionally rounded to **one decimal place**.

Interpreting each indicator. Each figure is read against the **credit terms** involved (for example, 30 days):

- For **ARTO**, a **lower** figure means customers pay **faster** — cash comes in sooner, which improves liquidity and reduces the risk of **bad debts**; a **higher** figure means customers pay **slower**, tying up cash in receivables and raising bad-debt risk.
- For **APTO**, a **lower** figure means the business pays its suppliers **faster** (using less of the credit period); a **higher** figure means it pays **slower**. Because suppliers are effectively an **interest-free source of finance**, paying slower conserves cash — but paying *beyond* terms risks lost settlement discounts and damaged supplier **goodwill**.

A **change over time** is read the same way: an **increase** in the number of days is slower, a **decrease** is faster.

The cash cycle — reading ARTO and APTO together. Neither figure means much in isolation. The real insight comes from comparing them, because together they describe the business's **cash cycle** — the gap between paying for inventory and collecting the cash from selling it:

- If **ARTO is lower than APTO**, the business **collects from its customers before it has to pay its suppliers**. It is *collecting faster than it is paying*. During the gap it holds cash that its suppliers' credit has effectively

financed, so this position **supports liquidity** — it is **favourable**. The wider the gap (APTO – ARTO), the longer the business holds that cash.

- If **ARTO is higher than APTO**, the business **must pay its suppliers before it collects from its customers**. It is *paying faster than it is collecting*, so it has to fund the gap from its own cash or by borrowing. This **strains liquidity** — it is **unfavourable**.

For example, a business with an ARTO of 26.5 days and an APTO of 36.5 days collects the cash from a credit sale about 10 days *before* the related supplier payment falls due, easing its cash position. Reverse the two figures and the business would have to find the cash 10 days *before* its customers pay — a common cause of a liquidity squeeze even in a profitable firm.

Managing the cash cycle. A business improves its cash cycle by shortening ARTO, lengthening APTO (within terms), or both. Strategies include:

- **To collect faster (lower ARTO):** check a customer's **creditworthiness** before extending credit; set and enforce clear **credit terms**; **follow up overdue accounts** promptly with statements, reminders and phone calls, withholding further credit until payment; offer a **settlement discount** for early payment; and, as a last resort, use a debt-collection agency or **factor** the receivables.
- **To pay at the best time (manage APTO):** pay **within — but not before — the credit terms** so cash is held as long as the agreement allows; take up a **settlement discount** where the saving outweighs the benefit of holding the cash; **schedule payments** to match cash inflows; and **negotiate longer credit terms** while protecting the goodwill that secures supply.

The trade-offs. Improving the cycle is not simply a matter of collecting as fast and paying as slowly as possible:

- **Collecting faster** brings cash in sooner and lowers bad-debt risk, but pushed too far — very tight terms, aggressive follow-up, or generous settlement discounts — it can **drive customers away**, cost **sales**, or give away profit as **discount expense**.
- **Paying slower** conserves cash and uses the interest-free finance suppliers provide, but paying *beyond* terms risks lost **discount revenue**, damaged supplier **goodwill**, and suppliers tightening terms, withdrawing credit or demanding cash on delivery.

Sound management balances a healthy cash cycle against the sales, goodwill and supplier relationships the business depends on, rather than simply minimising ARTO or maximising APTO.

Non-financial information. **Non-financial information** — information not expressed in dollars and not drawn from the accounting records — helps explain *why* the indicators have moved. For the cash cycle it includes the **number of overdue accounts**, **customer complaints or disputes**, **supplier delivery reliability and lead times**, the **credit terms competitors offer**, and **general economic conditions** that affect how promptly customers and the business itself can pay.

Worked model. Kanmantoo Trading trades on 30-day terms with both its customers and its suppliers. For the year ended 30 June 2026 its Accounts Receivable was \$22 000 at the start and \$26 000 at the end, on net credit sales of \$300 000 (GST-exclusive); its Accounts Payable was \$20 000 at the start and \$24 000 at the end, on net credit purchases of \$200 000 (GST-exclusive).

Average Accounts Receivable = $(\$22\,000 + \$26\,000) \div 2 = \$24\,000$; ARTO = $\$24\,000 \times 365 \div (\$300\,000 \times 1.1) = \$24\,000 \times 365 \div \$330\,000 = 26.5 \text{ days}$. Average Accounts Payable = $(\$20\,000 + \$24\,000) \div 2 = \$22\,000$; APTO = $\$22\,000 \times 365 \div (\$200\,000 \times 1.1) = \$22\,000 \times 365 \div \$220\,000 = 36.5 \text{ days}$.

Accounts Receivable and Accounts Payable Turnover

Working	\$
Average Accounts Receivable $(\$22\,000 + \$26\,000) \div 2$	24 000
Net credit sales (plus GST) $\$300\,000 \times 1.1$	330 000
ARTO = $24\,000 \times 365 \div 330\,000$	26.5 days

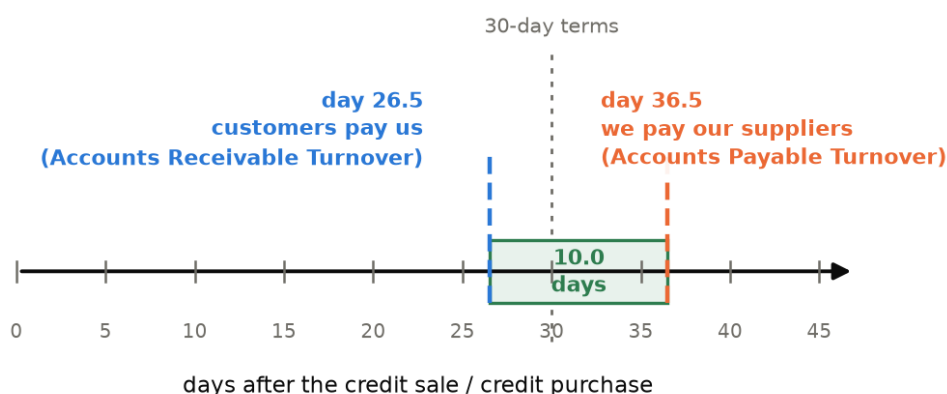
Working	\$
Average Accounts Payable ($\$20\,000 + \$24\,000 \div 2$)	22 000
Net credit purchases (plus GST) $\$200\,000 \times 1.1$	220 000
$APTO = 22\,000 \times 365 \div 220\,000$	36.5 days

Kanmantoo collects from its customers in **26.5 days** but takes **36.5 days** to pay its suppliers — so it collects the cash about **10 days before** the related supplier payment is due. This **favourable** cash cycle supports its liquidity: for those 10 days the business holds cash financed by its suppliers' credit.

Put on one axis, the two turnover figures stop being scores to compare and become dates:

A favourable cash cycle

Kanmantoo Trading — collecting sooner than it pays, year ended 30 June 2026



For these 10 days Kanmantoo holds cash it has collected but not yet paid out — working capital financed by its suppliers' credit, which supports its liquidity.

Kanmantoo Trading — the day the cash comes in from customers and the day it goes out to suppliers

Kanmantoo collects on day 26.5 and pays on day 36.5, so for **ten days** it holds cash it has collected but not yet paid out — working capital financed by its suppliers' credit. Measured against the 30-day terms both parties trade on, its customers are settling **inside** terms while Kanmantoo itself runs a little **past** them; the gap between the two markers is the favourable cash cycle described above.

Worked examples (scaffolded)

Example 1 — calculating both indicators and reading the cash cycle

Brookmere Trading trades on 30-day terms. For the year ended 30 June 2026 its Accounts Receivable was \$18 000 at the start and \$22 000 at the end, on net credit sales of \$250 000 (GST-exclusive); its Accounts Payable was \$22 000 at the start and \$26 000 at the end, on net credit purchases of \$240 000 (GST-exclusive). Calculate ARTO and APTO and interpret the cash cycle.

Working	Comment
Average Accounts Receivable = $(\$18\,000 + \$22\,000) \div 2 = \$20\,000$.	Average the opening and closing balances — a balance is compared with a period-long flow.
Net credit sales (plus GST) = $\$250\,000 \times 1.1 = \$275\,000$; ARTO = $\$20\,000 \times 365 \div \$275\,000 = 26.5$ days.	Gross the net credit sales up by 10%, then apply the formula; round to one decimal place.
Average Accounts Payable = $(\$22\,000 + \$26\,000) \div 2 = \$24\,000$.	Same averaging for the payables balance.
$APTO = \$24\,000 \times 365 \div (\$240\,000 \times 1.1) = 24\,000 \times$	The business takes about 33 days to pay its suppliers.

Working	Comment
$365 \div \$264\,000 = \mathbf{33.2 \text{ days}}$.	
Cash cycle: ARTO 26.5 < APTO 33.2, a gap of 6.7 days .	Because it collects <i>before</i> it pays, the position is favourable.

Accounts Receivable and Accounts Payable Turnover

Working	\$
Average Accounts Receivable	20 000
Net credit sales (plus GST) $\times 1.1$	275 000
$\text{ARTO} = 20\,000 \times 365 \div 275\,000$	26.5 days
Average Accounts Payable	24 000
Net credit purchases (plus GST) $\times 1.1$	264 000
$\text{APTO} = 24\,000 \times 365 \div 264\,000$	33.2 days

Brookmere collects from its customers in **26.5 days** and pays its suppliers in **33.2 days**, so it holds the cash for about **6.7 days** between collecting and paying. Collecting faster than it pays **supports its liquidity**, as the business is not out of pocket while it waits to be paid.

Example 2 — a cash cycle that strains liquidity, using returns

Highvale Supplies reports the following for the year ended 30 June 2026. Accounts Receivable was \$30 000 at the start and \$34 000 at the end; credit sales were \$340 000 and sales returns \$40 000 (both GST-exclusive). Accounts Payable was \$16 000 at the start and \$20 000 at the end; credit purchases were \$210 000 and purchase returns \$10 000 (both GST-exclusive). Terms both ways are 30 days. Calculate ARTO and APTO and interpret the cash cycle.

Working	Comment
Net credit sales = $\$340\,000 - \$40\,000 = \mathbf{\$300\,000}$; plus GST = $\$300\,000 \times 1.1 = \mathbf{\$330\,000}$.	Deduct sales returns first, then gross up by 10%.
Average Accounts Receivable = $(\$30\,000 + \$34\,000) \div 2 = \mathbf{\$32\,000}$.	Average the opening and closing receivables.
$\text{ARTO} = \$32\,000 \times 365 \div \$330\,000 = \mathbf{35.4 \text{ days}}$.	Customers take about 35 days to pay — beyond the 30-day terms.
Net credit purchases = $\$210\,000 - \$10\,000 = \mathbf{\$200\,000}$; plus GST = $\$200\,000 \times 1.1 = \mathbf{\$220\,000}$.	Deduct purchase returns first, then gross up by 10%.
Average Accounts Payable = $(\$16\,000 + \$20\,000) \div 2 = \mathbf{\$18\,000}$; $\text{APTO} = \$18\,000 \times 365 \div \$220\,000 = \mathbf{29.9 \text{ days}}$.	The business pays its suppliers in about 30 days — within terms.
Cash cycle: ARTO 35.4 > APTO 29.9, a gap of 5.5 days the <i>wrong</i> way.	It pays suppliers about 5–6 days <i>before</i> it collects — a strain on liquidity.

Highvale collects in **35.4 days** but pays in **29.9 days**, so it must find the cash to pay its suppliers about **5.5 days before** its own customers pay it. This cash cycle **strains liquidity**: the business finances the gap itself, and slow collection also raises the risk of bad debts. The obvious response is to tighten credit control — following up overdue accounts — so that ARTO falls back within the 30-day terms.

Worked examples (unscaffolded)

Example 3 — comparing the cash cycle across two years

Carrickvale Traders trades on 30-day terms both ways. Its figures are:

Item	2025	2026
Average Accounts Receivable \$	30 000	24 000
Net credit sales (GST-exclusive) \$	300 000	320 000
Average Accounts Payable \$	20 000	26 000
Net credit purchases (GST-exclusive) \$	200 000	260 000

Calculate ARTO and APTO for each year and interpret the change in the cash cycle.

For **2025**: $\text{ARTO} = \$30\,000 \times 365 \div (\$300\,000 \times 1.1) = \$30\,000 \times 365 \div \$330\,000 = \mathbf{33.2 \text{ days}}$; $\text{APTO} = \$20\,000 \times 365 \div (\$200\,000 \times 1.1) = \$20\,000 \times 365 \div \$220\,000 = \mathbf{33.2 \text{ days}}$. The two are equal, so the cash cycle is **balanced** — Carrickvale collects and pays at about the same speed.

For **2026**: $\text{ARTO} = \$24\,000 \times 365 \div (\$320\,000 \times 1.1) = \$24\,000 \times 365 \div \$352\,000 = \mathbf{24.9 \text{ days}}$; $\text{APTO} = \$26\,000 \times 365 \div (\$260\,000 \times 1.1) = \$26\,000 \times 365 \div \$286\,000 = \mathbf{33.2 \text{ days}}$. ARTO has fallen to 24.9 days while APTO has held at 33.2 days, so the business now collects about **8.3 days before** it pays.

$\therefore$ the cash cycle has moved from balanced (a nil gap) to **favourable** — Carrickvale now collects from customers roughly 8 days ahead of paying its suppliers, which strengthens its liquidity by keeping cash in the business during the gap.

Example 4 — evaluating a strategy's effect on the cycle

Denehurst Wholesale had, before reviewing its credit control, an **average Accounts Receivable** of \$40 000 on net credit sales of \$400 000 (GST-exclusive), and an **average Accounts Payable** of \$24 000 on net credit purchases of \$240 000 (GST-exclusive). After tightening its credit control — checking customers' creditworthiness and following up overdue accounts — its average Accounts Receivable fell to \$28 000, with net credit sales unchanged; its payables were unchanged. Evaluate the effect on the cash cycle.

Before: $\text{ARTO} = \$40\,000 \times 365 \div (\$400\,000 \times 1.1) = \$40\,000 \times 365 \div \$440\,000 = \mathbf{33.2 \text{ days}}$; $\text{APTO} = \$24\,000 \times 365 \div (\$240\,000 \times 1.1) = \$24\,000 \times 365 \div \$264\,000 = \mathbf{33.2 \text{ days}}$ — a balanced cycle with a nil gap. After: $\text{ARTO} = \$28\,000 \times 365 \div \$440\,000 = \mathbf{23.2 \text{ days}}$, with APTO unchanged at **33.2 days**, so the gap widens to **10.0 days** in the business's favour.

Because net credit sales were unchanged, the whole improvement comes from collecting the same sales with a lower average receivables balance — the direct result of tighter credit control. Denehurst now collects its cash a full 10 days before it must pay its suppliers, releasing cash that had been tied up in receivables and clearly strengthening its liquidity.

$\therefore$ the strategy is **effective** — but management should confirm the tighter terms and follow-up have not cost **sales** or driven customers to competitors offering easier credit; the gain in the cash cycle must not come at the expense of the revenue that credit terms help win.

Practice questions — scaffolded

Question 1

Marrivale Trading trades on 30-day terms. For the year ended 30 June 2026 its Accounts Receivable was \$24 000 at the start and \$28 000 at the end, on net credit sales of \$260 000 (GST-exclusive); its Accounts Payable was \$28 000 at the start and \$32 000 at the end, on net credit purchases of \$250 000 (GST-exclusive).

- Calculate the Accounts Receivable Turnover in days.
- Calculate the Accounts Payable Turnover in days.
- State whether the business collects before or after it pays, and whether the cash cycle supports its liquidity.

Question 2

Tenby Stores reports for the year ended 30 June 2026: Accounts Receivable \$30 000 at the start and \$36 000 at the end; credit sales \$330 000 and sales returns \$30 000 (both GST-exclusive). Accounts Payable \$14 000 at the start and \$18 000 at the end; credit purchases \$220 000 and purchase returns \$20 000 (both GST-exclusive). Terms both ways are 30 days.

- Calculate the Accounts Receivable Turnover in days.
- Calculate the Accounts Payable Turnover in days.
- State whether each is within the 30-day terms, and explain the effect on the cash cycle.

Question 3

Wolseley Traders trades on 30-day terms both ways and reports:

Item	2025	2026
Average Accounts Receivable \$	20 000	28 000
Net credit sales (GST-exclusive) \$	250 000	280 000
Average Accounts Payable \$	30 000	22 000
Net credit purchases (GST-exclusive) \$	250 000	220 000

- Calculate the Accounts Receivable Turnover for each year.
- Calculate the Accounts Payable Turnover for each year.
- State how the cash-cycle gap has changed and whether that helps or hurts liquidity.

Question 4

Ravenna Trading pays its suppliers on 30-day terms. It had an average Accounts Receivable of \$24 000 on net credit sales of \$240 000 (GST-exclusive), and an average Accounts Payable of \$18 000 on net credit purchases of \$240 000 (GST-exclusive). It then negotiated longer supplier terms and, on the same net credit purchases, its average Accounts Payable rose to \$30 000; its receivables were unchanged.

- Calculate the Accounts Receivable Turnover and the original Accounts Payable Turnover.
- Calculate the new Accounts Payable Turnover after the longer terms.
- Evaluate the effect on the cash cycle, and state one risk of paying suppliers more slowly.

Question 5

Halworth Supplies had an average Accounts Receivable of \$35 000 on net credit sales of \$350 000 (GST-exclusive), and an average Accounts Payable of \$20 000 on net credit purchases of \$200 000 (GST-exclusive), for the year ended 30 June 2026.

- Calculate the Accounts Receivable Turnover and the Accounts Payable Turnover, and state the cash-cycle gap.
- Discuss one benefit and one cost to Halworth of collecting from its customers faster.
- Discuss one benefit and one cost to Halworth of paying its suppliers more slowly.

Question 6

Ingleside Trading trades on 30-day terms. It had an average Accounts Receivable of \$44 000 on net credit sales of \$400 000 (GST-exclusive), and an average Accounts Payable of \$20 000 on net credit purchases of \$250 000 (GST-exclusive).

- a. Calculate the Accounts Receivable Turnover and the Accounts Payable Turnover.
- b. State the cash-cycle position and one strategy the business could use to improve it.
- c. Identify one piece of non-financial information that would help management interpret the result.

Practice questions — unscaffolded

Question 7

Pemberton Traders reports for the year ended 30 June 2026: Accounts Receivable \$18 000 at the start and \$22 000 at the end, on net credit sales of \$200 000 (GST-exclusive); Accounts Payable \$16 000 at the start and \$20 000 at the end, on net credit purchases of \$200 000 (GST-exclusive). Calculate the ARTO and the APTO in days, and state whether the cash cycle supports or strains liquidity.

Question 8

Calderwood Stores reports for the year: Accounts Receivable \$24 000 at the start and \$30 000 at the end; credit sales \$320 000 and sales returns \$20 000 (both GST-exclusive). Accounts Payable \$22 000 at the start and \$26 000 at the end; credit purchases \$240 000 and purchase returns \$40 000 (both GST-exclusive). Calculate the ARTO and the APTO in days, and state the cash-cycle gap.

Question 9

Ferndale Trading trades on 30-day terms both ways. In 2025 its average Accounts Receivable was \$24 000 on net credit sales of \$240 000, and its average Accounts Payable was \$24 000 on net credit purchases of \$240 000 (all GST-exclusive). In 2026 its average Accounts Receivable was \$30 000 on net credit sales of \$250 000, and its average Accounts Payable was \$20 000 on net credit purchases of \$200 000 (all GST-exclusive). Calculate the ARTO and the APTO for each year and interpret the change in the cash cycle.

Question 10

Aldercott Trading and Brixham Trading operate in the same industry, both on 30-day terms. Aldercott had an average Accounts Receivable of \$20 000 on net credit sales of \$250 000, and an average Accounts Payable of \$30 000 on net credit purchases of \$250 000. Brixham had an average Accounts Receivable of \$40 000 on net credit sales of \$400 000, and an average Accounts Payable of \$24 000 on net credit purchases of \$300 000 (all GST-exclusive). Calculate each business's ARTO and APTO, and state which business has the healthier cash cycle and why.

Question 11

Norwood Trading had, before it reviewed its collections, an average Accounts Receivable of \$36 000 on net credit sales of \$300 000 (GST-exclusive), and an average Accounts Payable of \$20 000 on net credit purchases of \$200 000 (GST-exclusive). After tightening its credit control its average Accounts Receivable fell to \$24 000, with net credit sales and its payables unchanged. Calculate the ARTO before and after and the APTO, and evaluate whether the strategy improved the cash cycle.

Question 12

Saltram Supplies had an average Accounts Receivable of \$22 000 on net credit sales of \$220 000 (GST-exclusive), and an average Accounts Payable of \$33 000 on net credit purchases of \$300 000 (GST-exclusive). Calculate the ARTO and the APTO, state the cash-cycle gap, and discuss one benefit and one risk of the business deliberately paying its suppliers more slowly to widen that gap.

Question 13

Trentham Traders trades on 30-day terms and had an average Accounts Receivable of \$20 000 on net credit sales of \$300 000 (GST-exclusive), and an average Accounts Payable of \$30 000 on net credit purchases of \$300 000 (GST-exclusive). Calculate the ARTO and the APTO, and discuss one trade-off the business must manage in pursuing such fast collection from its customers.

Question 14

At 1 July 2025 Wexford Trading's Accounts Receivable was \$24 000 and its Accounts Payable was \$20 000 (both GST-inclusive). During the year ended 30 June 2026 it made credit sales of \$300 000 (plus GST), had sales returns of \$20 000 (plus GST) and received \$304 000 from customers; it made credit purchases of \$240 000 (plus GST), had purchase returns of \$40 000 (plus GST) and paid \$216 000 to suppliers. Reconstruct the closing Accounts Receivable and Accounts Payable, then calculate the ARTO and the APTO in days and state the cash-cycle gap.

Question 15

Oakridge Trading trades on 30-day terms both ways. It had an average Accounts Receivable of \$33 000 on net credit sales of \$300 000 (GST-exclusive), and an average Accounts Payable of \$20 000 on net credit purchases of \$250 000 (GST-exclusive). Calculate the ARTO and the APTO, interpret the cash cycle, and recommend one strategy to improve the business's liquidity.

Question 16

Lyndhurst Wholesale overhauled its receivables and payables management over two years. In 2025 its Accounts Receivable was \$38 000 at the start and \$42 000 at the end, on net credit sales of \$400 000, and its average Accounts Payable was \$20 000 on net credit purchases of \$250 000. In 2026 its Accounts Receivable was \$26 000 at the start and \$30 000 at the end, on net credit sales of \$400 000, and its average Accounts Payable was \$30 000 on net credit purchases of \$250 000 (all GST-exclusive). Calculate the ARTO and the APTO for each year, evaluate the effect of the overhaul on the cash cycle, and recommend one thing management should monitor.

Question 17

Amberley Trading had an average Accounts Receivable of \$20 000 on net credit sales of \$400 000 (GST-exclusive), and an average Accounts Payable of \$40 000 on net credit purchases of \$300 000 (GST-exclusive). Both its customers and its suppliers trade on 30-day terms. Calculate the ARTO and the APTO, and discuss whether the very large cash-cycle gap is necessarily a sign of healthy management.

Question 18

Kingscliff Traders trades on 30-day terms both ways and reports for the year ended 30 June 2026: Accounts Receivable \$28 000 at the start and \$32 000 at the end; credit sales \$350 000 and sales returns \$50 000 (both GST-exclusive). Accounts Payable \$20 000 at the start and \$28 000 at the end; credit purchases \$260 000 and purchase returns \$60 000 (both GST-exclusive). Calculate the average Accounts Receivable and Accounts Payable, the ARTO and the APTO, state the cash-cycle gap, and recommend one thing management should monitor.

Answers

1.
 - a. 33.2 days b. 39.8 days c. Collects first (favourable); gap 6.6 days
2.
 - a. 36.5 days b. 26.5 days c. ARTO beyond terms, APTO within terms; pays before it collects (strain), gap 10.0 days
3.
 - a. 2025 = 26.5 days; 2026 = 33.2 days b. 2025 = 39.8 days; 2026 = 33.2 days c. Favourable gap fell from 13.3 to 0 days (hurts liquidity)
4.
 - a. ARTO 33.2 days; APTO 24.9 days b. New APTO 41.5 days c. Gap flips from 8.3-day strain to 8.3-day favourable
5.
 - a. ARTO 33.2 days; APTO 33.2 days; gap 0 (balanced)
6.
 - a. ARTO 36.5 days; APTO 26.5 days b. Pays before it collects (strain), gap 10.0 days
7. ARTO 33.2 days; APTO 29.9 days; pays before it collects (strains liquidity), gap 3.3 days
8. ARTO 29.9 days; APTO 39.8 days; favourable gap 9.9 days
9. 2025: ARTO 33.2, APTO 33.2 (balanced); 2026: ARTO 39.8, APTO 33.2 (strain, gap 6.6 days)
10. Aldercott ARTO 26.5, APTO 39.8 (favourable 13.3); Brixham ARTO 33.2, APTO 26.5 (strain 6.7); Aldercott healthier
11. ARTO before 39.8, after 26.5 days; APTO 33.2 days; cycle moves from a 6.6-day strain to a 6.7-day favourable gap
12. ARTO 33.2 days; APTO 36.5 days; favourable gap 3.3 days
13. ARTO 22.1 days; APTO 33.2 days; favourable gap 11.1 days
14. Closing AR \$28 000; closing AP \$24 000; ARTO 30.8 days; APTO 36.5 days; favourable gap 5.7 days
15. ARTO 36.5 days; APTO 26.5 days; strain, gap 10.0 days
16. 2025: ARTO 33.2, APTO 26.5 (strain 6.7); 2026: ARTO 23.2, APTO 39.8 (favourable 16.6)
17. ARTO 16.6 days; APTO 44.2 days; gap 27.6 days — not necessarily healthy (see solution)
18. Average AR \$30 000; average AP \$24 000; ARTO 33.2 days; APTO 39.8 days; favourable gap 6.6 days

Fully-worked solutions

Question 1

- a. Average Accounts Receivable = $(\$24\,000 + \$28\,000) \div 2 = \$26\,000$. ARTO = $\$26\,000 \times 365 \div (\$260\,000 \times 1.1) = \$9\,490\,000 \div \$286\,000 = \mathbf{33.2\ days}$.
- b. Average Accounts Payable = $(\$28\,000 + \$32\,000) \div 2 = \$30\,000$. APTO = $\$30\,000 \times 365 \div (\$250\,000 \times 1.1) = \$10\,950\,000 \div \$275\,000 = \mathbf{39.8\ days}$.
- c. Marrivale collects from its customers in 33.2 days but does not pay its suppliers until 39.8 days, so it **collects about 6.6 days before it pays**. Collecting first means the cash cycle is **favourable** and **supports liquidity** — the business holds the cash its suppliers' credit has financed for those 6–7 days.

Question 2

- a. Net credit sales = $\$330\,000 - \$30\,000 = \$300\,000$; plus GST = $\$330\,000$. Average Accounts Receivable = $(\$30\,000 + \$36\,000) \div 2 = \$33\,000$. ARTO = $\$33\,000 \times 365 \div \$330\,000 = \$12\,045\,000 \div \$330\,000 = \mathbf{36.5\ days}$.
- b. Net credit purchases = $\$220\,000 - \$20\,000 = \$200\,000$; plus GST = $\$220\,000$. Average Accounts Payable = $(\$14\,000 + \$18\,000) \div 2 = \$16\,000$. APTO = $\$16\,000 \times 365 \div \$220\,000 = \$5\,840\,000 \div \$220\,000 = \mathbf{26.5\ days}$.

- c. The ARTO of 36.5 days is **beyond** the 30-day terms — customers are paying slowly — while the APTO of 26.5 days is **within** the 30-day terms. Because ARTO (36.5) is higher than APTO (26.5), Tenby must pay its suppliers about **10 days before** it collects from its customers, so the cash cycle **strains liquidity**: the business funds that gap itself and carries a higher risk of bad debts on the slow-paying accounts.

Question 3

- a. 2025: $\text{ARTO} = \$20\,000 \times 365 \div (\$250\,000 \times 1.1) = \$7\,300\,000 \div \$275\,000 = \mathbf{26.5 \text{ days}}$. 2026: $\text{ARTO} = \$28\,000 \times 365 \div (\$280\,000 \times 1.1) = \$10\,220\,000 \div \$308\,000 = \mathbf{33.2 \text{ days}}$.
- b. 2025: $\text{APTO} = \$30\,000 \times 365 \div \$275\,000 = \$10\,950\,000 \div \$275\,000 = \mathbf{39.8 \text{ days}}$. 2026: $\text{APTO} = \$22\,000 \times 365 \div (\$220\,000 \times 1.1) = \$8\,030\,000 \div \$242\,000 = \mathbf{33.2 \text{ days}}$.
- c. In 2025 Wolseley collected in 26.5 days but paid in 39.8 days — a favourable gap of **13.3 days**. In 2026 both indicators are 33.2 days, so the gap has closed to **nil**. The business has lost its cash-cycle advantage: it used to hold cash for about 13 days between collecting and paying, but now collects and pays at the same speed, so it no longer has that buffer. The change **hurts liquidity**, and management should look at why collection has slowed (ARTO up from 26.5 to 33.2) and why it is now paying suppliers sooner (APTO down from 39.8 to 33.2).

Question 4

- a. $\text{ARTO} = \$24\,000 \times 365 \div (\$240\,000 \times 1.1) = \$8\,760\,000 \div \$264\,000 = \mathbf{33.2 \text{ days}}$. Original $\text{APTO} = \$18\,000 \times 365 \div \$264\,000 = \$6\,570\,000 \div \$264\,000 = \mathbf{24.9 \text{ days}}$.
- b. New $\text{APTO} = \$30\,000 \times 365 \div \$264\,000 = \$10\,950\,000 \div \$264\,000 = \mathbf{41.5 \text{ days}}$.
- c. Before the change, Ravenna paid its suppliers in 24.9 days but did not collect until 33.2 days, so it paid about **8.3 days before** it collected — a strain on liquidity. After negotiating longer terms it now pays in 41.5 days, collecting (33.2 days) about **8.3 days before** it pays — the gap has flipped to **favourable**, and liquidity is improved because the business holds cash for that period. One risk is that paying suppliers more slowly — especially if it drifts *beyond* the agreed terms — can cost **settlement discounts** and damage supplier **goodwill**; here the terms were renegotiated, so the longer APTO is legitimate, but management must keep paying within the *new* terms.

Question 5

- a. $\text{ARTO} = \$35\,000 \times 365 \div (\$350\,000 \times 1.1) = \$12\,775\,000 \div \$385\,000 = \mathbf{33.2 \text{ days}}$. $\text{APTO} = \$20\,000 \times 365 \div (\$200\,000 \times 1.1) = \$7\,300\,000 \div \$220\,000 = \mathbf{33.2 \text{ days}}$. The two are equal, so the cash-cycle gap is **nil** — Halworth collects and pays at the same speed.
- b. Collecting from customers **faster** would bring cash in sooner, strengthening liquidity and reducing the risk that a balance becomes a **bad debt**. The cost is that pushing collection too hard — very tight terms, aggressive follow-up, or a settlement discount to encourage early payment — can **drive customers away** and cost sales, or give away profit as **discount expense**.
- c. Paying suppliers **slower** would let Halworth hold its cash longer, using the interest-free finance suppliers provide and improving short-term liquidity. The cost is that paying beyond the agreed terms risks losing early-payment **discount revenue** and damaging supplier **goodwill**, which could see suppliers tighten terms, withdraw credit or demand cash on delivery.

Question 6

- a. $\text{ARTO} = \$44\,000 \times 365 \div (\$400\,000 \times 1.1) = \$16\,060\,000 \div \$440\,000 = \mathbf{36.5 \text{ days}}$. $\text{APTO} = \$20\,000 \times 365 \div (\$250\,000 \times 1.1) = \$7\,300\,000 \div \$275\,000 = \mathbf{26.5 \text{ days}}$.
- b. Ingleside collects in 36.5 days but pays in 26.5 days, so it **pays its suppliers about 10 days before it collects** from its customers — an **unfavourable** cash cycle that strains liquidity. To improve it, the business could **follow up overdue accounts** promptly (issuing reminders and statements as soon as an account passes 30 days, then telephoning) to bring ARTO down within terms, or **negotiate longer credit terms** with suppliers so that APTO lengthens; either narrows or closes the funding gap.

- c. Useful non-financial information includes the **number of overdue accounts** (or days each is overdue), **customer complaints or disputes** delaying payment, **supplier delivery reliability**, or the **credit terms competitors offer** — any of which helps explain why customers are slow to pay and whether the business can safely tighten its terms.

Question 7

Average Accounts Receivable = $(\$18\,000 + \$22\,000) \div 2 = \$20\,000$; ARTO = $\$20\,000 \times 365 \div (\$200\,000 \times 1.1) = \$7\,300\,000 \div \$220\,000 = \mathbf{33.2\ days}$. Average Accounts Payable = $(\$16\,000 + \$20\,000) \div 2 = \$18\,000$; APTO = $\$18\,000 \times 365 \div \$220\,000 = \$6\,570\,000 \div \$220\,000 = \mathbf{29.9\ days}$. Because ARTO (33.2) is higher than APTO (29.9), Pemberton **pays its suppliers about 3.3 days before it collects** from its customers, so the cash cycle **strains liquidity** — though the gap is small, the business is slightly out of pocket while it waits to be paid.

Question 8

Net credit sales = $\$320\,000 - \$20\,000 = \$300\,000$; plus GST = $\$330\,000$. Average Accounts Receivable = $(\$24\,000 + \$30\,000) \div 2 = \$27\,000$; ARTO = $\$27\,000 \times 365 \div \$330\,000 = \$9\,855\,000 \div \$330\,000 = \mathbf{29.9\ days}$. Net credit purchases = $\$240\,000 - \$40\,000 = \$200\,000$; plus GST = $\$220\,000$. Average Accounts Payable = $(\$22\,000 + \$26\,000) \div 2 = \$24\,000$; APTO = $\$24\,000 \times 365 \div \$220\,000 = \$8\,760\,000 \div \$220\,000 = \mathbf{39.8\ days}$. Calderwood collects in 29.9 days and pays in 39.8 days, so it collects about **9.9 days before it pays** — a **favourable** cash cycle that supports liquidity.

Question 9

2025: ARTO = $\$24\,000 \times 365 \div (\$240\,000 \times 1.1) = \$8\,760\,000 \div \$264\,000 = \mathbf{33.2\ days}$; APTO = $\$24\,000 \times 365 \div \$264\,000 = \mathbf{33.2\ days}$ — the cycle is **balanced** (nil gap). 2026: ARTO = $\$30\,000 \times 365 \div (\$250\,000 \times 1.1) = \$10\,950\,000 \div \$275\,000 = \mathbf{39.8\ days}$; APTO = $\$20\,000 \times 365 \div (\$200\,000 \times 1.1) = \$7\,300\,000 \div \$220\,000 = \mathbf{33.2\ days}$. In 2026 ARTO (39.8) exceeds APTO (33.2), so Ferndale now **pays its suppliers about 6.6 days before it collects** from customers. The cash cycle has moved from balanced to an unfavourable 6.6-day gap, weakening liquidity: collection has slowed (ARTO up from 33.2 to 39.8) while the business is paying its suppliers sooner (APTO down from 33.2). Management should follow up overdue accounts to bring ARTO back within terms.

Question 10

Aldercott: ARTO = $\$20\,000 \times 365 \div (\$250\,000 \times 1.1) = \$7\,300\,000 \div \$275\,000 = \mathbf{26.5\ days}$; APTO = $\$30\,000 \times 365 \div \$275\,000 = \$10\,950\,000 \div \$275\,000 = \mathbf{39.8\ days}$ — it collects about **13.3 days before** it pays. Brixham: ARTO = $\$40\,000 \times 365 \div (\$400\,000 \times 1.1) = \$14\,600\,000 \div \$440\,000 = \mathbf{33.2\ days}$; APTO = $\$24\,000 \times 365 \div (\$300\,000 \times 1.1) = \$8\,760\,000 \div \$330\,000 = \mathbf{26.5\ days}$ — it **pays about 6.7 days before** it collects.

Aldercott has the healthier cash cycle. It turns its receivables into cash well within terms (26.5 days) and uses close to the full supplier credit period (39.8 days), so it holds cash for about 13 days between collecting and paying — a strong support for liquidity. Brixham does the reverse: it pays its suppliers quickly (26.5 days) but collects slowly (33.2 days), so it must fund a 6–7 day gap itself. Even though the two firms are in the same industry, Aldercott's timing of cash in and out is far more favourable.

Question 11

Before: ARTO = $\$36\,000 \times 365 \div (\$300\,000 \times 1.1) = \$13\,140\,000 \div \$330\,000 = \mathbf{39.8\ days}$. After: ARTO = $\$24\,000 \times 365 \div \$330\,000 = \$8\,760\,000 \div \$330\,000 = \mathbf{26.5\ days}$. APTO = $\$20\,000 \times 365 \div (\$200\,000 \times 1.1) = \$7\,300\,000 \div \$220\,000 = \mathbf{33.2\ days}$ (unchanged).

Before the review, ARTO (39.8) exceeded APTO (33.2), so Norwood paid its suppliers about **6.6 days before** it collected — an unfavourable cycle that strained liquidity. After tightening credit control, ARTO falls to 26.5 days, below the 33.2-day APTO, so the business now **collects about 6.7 days before it pays** — the gap has flipped to favourable. Because net credit sales were unchanged, the improvement comes entirely from collecting the same sales with a lower receivables balance. The strategy has therefore **improved the cash cycle** and strengthened liquidity — provided the tighter credit control has not cost sales or driven customers away.

Question 12

ARTO = $\$22\,000 \times 365 \div (\$220\,000 \times 1.1) = \$8\,030\,000 \div \$242\,000 = \mathbf{33.2 \text{ days}}$. APTO = $\$33\,000 \times 365 \div (\$300\,000 \times 1.1) = \$12\,045\,000 \div \$330\,000 = \mathbf{36.5 \text{ days}}$. Saltram collects in 33.2 days and pays in 36.5 days, so it collects about **3.3 days before it pays** — a modest **favourable** gap.

Deliberately paying suppliers more slowly would **widen** this gap: holding cash longer uses the interest-free finance suppliers provide and improves short-term liquidity, letting the business fund wages, inventory or other outgoings without borrowing. The risk is that stretching payment *beyond* the agreed terms costs early-payment **discount revenue** and damages supplier **goodwill** — suppliers may respond by tightening terms, withdrawing credit or demanding cash on delivery, which would disrupt supply and could ultimately harm the business more than the liquidity benefit is worth. Saltram should widen the gap only as far as its suppliers' terms allow.

Question 13

ARTO = $\$20\,000 \times 365 \div (\$300\,000 \times 1.1) = \$7\,300\,000 \div \$330\,000 = \mathbf{22.1 \text{ days}}$. APTO = $\$30\,000 \times 365 \div \$330\,000 = \$10\,950\,000 \div \$330\,000 = \mathbf{33.2 \text{ days}}$. Trentham collects in just 22.1 days — well inside its 30-day terms — while paying in 33.2 days, so it collects about **11.1 days before it pays**, a strongly favourable cash cycle.

The trade-off it must manage is that collecting this fast may mean its **credit terms are too tight** or it is leaning on **settlement discounts** to bring cash in early. Very tight terms or aggressive follow-up can **drive customers to competitors** offering easier credit, costing sales, while a discount speeds collection only by giving up profit as **discount expense**. Trentham must weigh the liquidity benefit of fast, certain cash against the sales and goodwill that reasonable credit terms help generate — fast collection is valuable, but not if it is achieved by losing customers.

Question 14

Reconstruct the closing balances (all amounts GST-inclusive):

Reconstruction	AR \$	AP \$
Opening balance (1 Jul 2025)	24 000	20 000
Add: credit sales / purchases (plus GST)	330 000	264 000
Less: returns (plus GST)	(22 000)	(44 000)
Less: receipts / payments	(304 000)	(216 000)
Closing balance (30 Jun 2026)	28 000	24 000

Average Accounts Receivable = $(\$24\,000 + \$28\,000) \div 2 = \$26\,000$; net credit sales = $\$300\,000 - \$20\,000 = \$280\,000$; ARTO = $\$26\,000 \times 365 \div (\$280\,000 \times 1.1) = \$9\,490\,000 \div \$308\,000 = \mathbf{30.8 \text{ days}}$. Average Accounts Payable = $(\$20\,000 + \$24\,000) \div 2 = \$22\,000$; net credit purchases = $\$240\,000 - \$40\,000 = \$200\,000$; APTO = $\$22\,000 \times 365 \div \$220\,000 = \$8\,030\,000 \div \$220\,000 = \mathbf{36.5 \text{ days}}$. Wexford collects in 30.8 days and pays in 36.5 days, so it collects about **5.7 days before it pays** — a **favourable** cash cycle that supports liquidity.

Question 15

ARTO = $\$33\,000 \times 365 \div (\$300\,000 \times 1.1) = \$12\,045\,000 \div \$330\,000 = \mathbf{36.5 \text{ days}}$. APTO = $\$20\,000 \times 365 \div (\$250\,000 \times 1.1) = \$7\,300\,000 \div \$275\,000 = \mathbf{26.5 \text{ days}}$. Oakridge collects in 36.5 days — beyond its 30-day terms — but pays in only 26.5 days, so it **pays its suppliers about 10 days before it collects** from its customers. This is an **unfavourable** cash cycle that strains liquidity: the business must fund the 10-day gap from its own cash or by borrowing, and slow collection also raises the risk of bad debts.

To improve its liquidity, Oakridge should **tighten its credit control** — checking customers' creditworthiness before extending credit and following up overdue accounts promptly (reminders, statements, then telephone calls, withholding further credit until payment) — so that ARTO falls back within the 30-day terms. Alternatively, or as well, it could **negotiate longer credit terms** with its suppliers so that APTO lengthens toward, or beyond, its collection period, narrowing the gap and easing the strain.

Question 16

2025: average Accounts Receivable = $(\$38\,000 + \$42\,000) \div 2 = \$40\,000$; ARTO = $\$40\,000 \times 365 \div (\$400\,000 \times 1.1) = \$14\,600\,000 \div \$440\,000 = \mathbf{33.2\ days}$; APTO = $\$20\,000 \times 365 \div (\$250\,000 \times 1.1) = \$7\,300\,000 \div \$275\,000 = \mathbf{26.5\ days}$. In 2025 ARTO (33.2) exceeded APTO (26.5), so Lyndhurst paid about **6.7 days before** it collected — an unfavourable cycle.

2026: average Accounts Receivable = $(\$26\,000 + \$30\,000) \div 2 = \$28\,000$; ARTO = $\$28\,000 \times 365 \div \$440\,000 = \$10\,220\,000 \div \$440\,000 = \mathbf{23.2\ days}$; APTO = $\$30\,000 \times 365 \div \$275\,000 = \$10\,950\,000 \div \$275\,000 = \mathbf{39.8\ days}$. In 2026 ARTO (23.2) is well below APTO (39.8), so the business now **collects about 16.6 days before it pays** — a strongly favourable cycle.

The overhaul has both sped collection (ARTO down from 33.2 to 23.2 days) and slowed payment (APTO up from 26.5 to 39.8 days), turning a 6.7-day funding strain into a 16.6-day favourable gap. This is a clearly favourable result for liquidity: the business now holds cash for over two weeks between collecting and paying. Management should **monitor bad debts and customer goodwill** (in case the faster collection is losing sales) and **supplier goodwill and settlement discounts** (in case the slower payment is drifting beyond terms) — confirming the improved cycle has not been bought at the cost of customers or suppliers.

Question 17

ARTO = $\$20\,000 \times 365 \div (\$400\,000 \times 1.1) = \$7\,300\,000 \div \$440\,000 = \mathbf{16.6\ days}$. APTO = $\$40\,000 \times 365 \div (\$300\,000 \times 1.1) = \$14\,600\,000 \div \$330\,000 = \mathbf{44.2\ days}$. Amberley collects in just 16.6 days but takes 44.2 days to pay, so it holds cash for about **27.6 days** between collecting and paying — a very large favourable gap.

At first glance this looks excellent for liquidity, but the size of the gap is **not necessarily a sign of healthy management**, because of *how* each figure has been achieved. An ARTO of only 16.6 days is far inside the 30-day terms — collection this fast may mean the terms are **too tight** (losing sales to competitors offering easier credit) or that customers are being given costly **settlement discounts**. An APTO of 44.2 days is well **beyond** the 30-day supplier terms — paying this late risks lost **discount revenue** and damaged supplier **goodwill**, and suppliers may eventually tighten terms or withhold supply. So while the wide gap eases cash flow today, it may be storing up lost sales and strained supplier relationships; a healthy cash cycle is one achieved *within* the terms on both sides, not by squeezing customers and stretching suppliers.

Question 18

Average Accounts Receivable = $(\$28\,000 + \$32\,000) \div 2 = \mathbf{\$30\,000}$. Net credit sales = $\$350\,000 - \$50\,000 = \$300\,000$; plus GST = $\$330\,000$. ARTO = $\$30\,000 \times 365 \div \$330\,000 = \$10\,950\,000 \div \$330\,000 = \mathbf{33.2\ days}$. Average Accounts Payable = $(\$20\,000 + \$28\,000) \div 2 = \mathbf{\$24\,000}$. Net credit purchases = $\$260\,000 - \$60\,000 = \$200\,000$; plus GST = $\$220\,000$. APTO = $\$24\,000 \times 365 \div \$220\,000 = \$8\,760\,000 \div \$220\,000 = \mathbf{39.8\ days}$. Kingscliff collects in 33.2 days and pays in 39.8 days, so it **collects about 6.6 days before it pays** — a **favourable** cash cycle that supports liquidity. Management should **monitor supplier goodwill and settlement discounts** to make sure the 39.8-day payment period stays within the suppliers' terms, and keep following up receivables so that ARTO does not drift beyond the 30-day terms and erode the favourable gap.

Topic 6 Test A — Recording and analysis

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

Topic 6 covers Chapters 17–19: budgeting, and the evaluation of profitability and liquidity. Show all working. Ratios expressed to 1 : 1 are stated to two decimal places; margins, returns, turnover in “times” and turnover in days are all stated to one decimal place.

Question 1 (16 marks)

Fernway Furnishings is a furniture retailer preparing an integrated budget for the year ending 30 June 2027. Its ledger balances at 1 July 2026 were:

Account	\$
Bank	9 000
Accounts Receivable	26 000
Inventory	32 000
Equipment (at cost)	80 000
Accumulated Depreciation – Equipment	20 000
Accounts Payable	18 000
GST Clearing (liability)	3 000
Loan – Seabank	25 000
Capital	81 000

For the year ending 30 June 2027 the business budgets the following (amounts marked “plus GST” attract 10% GST):

Budgeted item	\$
Cash sales (plus GST)	60 000
Credit sales (plus GST)	120 000
Cost of Sales	108 000
Credit purchases of inventory (plus GST)	115 000
Receipts from Accounts Receivable	130 000
Payments to Accounts Payable	118 000
Wages	30 000
Rent expense (plus GST)	12 000
Advertising (plus GST)	6 000
Interest expense	2 500
Depreciation – Equipment	8 000
Drawings	7 000
Loan repayment (principal)	5 000

The budgeted closing balance of **GST Clearing** at 30 June 2027 is **\$7 700** (a current liability). No non-current assets are to be bought or sold during the year.

- Prepare the Budgeted Income Statement for the year ending 30 June 2027 and state the Budgeted Net Profit. 5 marks
- Reconstruct the Accounts Receivable and Accounts Payable accounts to find their budgeted closing balances, and calculate the budgeted closing balances of Inventory and Accumulated Depreciation – Equipment. 3 marks
- Prepare the Budgeted Cash Flow Statement for the year ending 30 June 2027 and state the expected Bank balance at 30 June 2027. 5 marks

d. Prepare the Budgeted Balance Sheet as at 30 June 2027.

3 marks

Question 2 (8 marks)

Oakmere Trading budgeted its performance for the month ended 30 June 2027 and later compared it with the actual result:

Item	Budget \$	Actual \$
Sales revenue	200 000	188 000
Cost of Sales	120 000	110 000
Wages	34 000	34 000
Rent expense	12 000	12 000
Advertising	8 000	3 000
Interest expense	4 000	4 500

a. Prepare a net profit variance report showing, for each item, the variance in dollars and its Favourable (F) or Unfavourable (U) label, ending with the net profit line.

5 marks

b. Verify the net profit variance using the check “total favourable – total unfavourable = net variance”.

1 mark

c. Advertising was \$5 000 below budget — a favourable variance — yet sales were \$12 000 below budget. Discuss whether the favourable advertising variance is “good news” for Oakmere.

2 marks

Question 3 (12 marks)

Harlowe Retail provides the following information for the years ended 30 June 2026 and 30 June 2027:

Item	2026 \$	2027 \$
Net Sales	600 000	700 000
Cost of Sales	360 000	420 000
Net Profit	72 000	70 000
Total assets — 1 July	380 000	420 000
Total assets — 30 June	420 000	580 000
Capital — 1 July	340 000	380 000
Capital — 30 June	380 000	420 000

a. Calculate the Gross Profit Margin and the Net Profit Margin for each year.

3 marks

b. Calculate the Return on Owner’s Investment, the Return on Assets and the Asset Turnover for each year.

4 marks

c. Show that Return on Assets = Net Profit Margin × Asset Turnover for 2027.

1 mark

d. Using vertical analysis, express Cost of Sales, total expenses and Net Profit as a percentage of Net Sales for each year.

2 marks

e. The Gross Profit Margin held steady while the Net Profit Margin and Return on Assets both fell. Analyse this trend to identify the cause, and recommend — with justification — one strategy to restore profitability.

2 marks

Question 4 (10 marks)

Marlowe Provisions is a trading business. The current sections of its Balance Sheet as at 30 June 2027 are:

	\$	\$
Current Assets		
Bank	26 000	
Accounts Receivable	36 000	

	\$	\$
Inventory	52 000	
Prepaid expenses	6 000	120 000
Current Liabilities		
Accounts Payable	48 000	
GST Clearing	6 000	
Accrued wages	6 000	60 000

Additional information for the year ended 30 June 2027:

Item	\$
Net cash flows from Operating activities	90 000
Current liabilities at 1 July 2026	40 000
Inventory at 1 July 2026	48 000
Cost of Goods Sold	288 000
Accounts Receivable at 1 July 2026	30 000
Net credit sales (plus GST)	365 000
Accounts Payable at 1 July 2026	40 000
Net credit purchases (plus GST)	292 000

There was no bank overdraft during the year.

- a. Calculate the Working Capital Ratio and the Quick Asset Ratio at 30 June 2027. 3 marks
- b. Calculate the Cash Flow Cover. 2 marks
- c. Calculate the Inventory Turnover, the Accounts Receivable Turnover and the Accounts Payable Turnover, each in days. 3 marks
- d. State whether Marlowe's cash cycle is favourable or unfavourable and interpret its overall liquidity, then discuss one limitation of ratio analysis the owner should keep in mind. 2 marks

Question 5 (4 marks)

Before balance day, Marlowe Provisions (Question 4) is considering using **\$18 000** of its Bank to repay Accounts Payable early.

- a. Model the effect of this decision on the Working Capital Ratio and the Quick Asset Ratio, and justify whether it improves Marlowe's reported liquidity. 4 marks

Topic 6 Test A — solutions

Question 1

a. Budgeted Income Statement.

Budgeted Income

Statement for the year

ending 30 June 2027

\$

\$

Revenue

Sales (cash 60 000 + credit 120 000) 180 000

Net Sales

180 000

less Cost of Sales

108 000

Gross Profit

72 000

less Expenses

Wages 30 000

Rent expense 12 000

Advertising 6 000

Interest expense 2 500

Depreciation – Equipment 8 000

Total Expenses

58 500

Budgeted Net Profit

13 500

∴ Budgeted Net Profit = **\$13 500**.

b. The control accounts are reconstructed GST-inclusive (a credit sale/purchase debits/credits the account with the full GST-inclusive amount): credit sales incl. GST = $\$120\,000 \times 1.1 = \$132\,000$; credit purchases incl. GST = $\$115\,000 \times 1.1 = \$126\,500$.

Accounts Receivable

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
1 Jul	Balance	26 000	30 Jun	Bank	130 000
30 Jun	Sales / GST Clearing	132 000	30 Jun	Balance	28 000
		158 000			158 000

Accounts Payable

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
30 Jun	Bank	118 000	1 Jul	Balance	18 000
30 Jun	Balance	26 500	30 Jun	Inventory / GST Clearing	126 500
		144 500			144 500

Closing **Accounts Receivable** = **\$28 000**; closing **Accounts Payable** = **\$26 500**. Closing **Inventory** = $32\,000 + 115\,000 - 108\,000 = \$39\,000$. Closing **Accumulated Depreciation** = $20\,000 + 8\,000 = \$28\,000$ (Equipment carrying amount = $80\,000 - 28\,000 = \$52\,000$).

c. Budgeted Cash Flow Statement (cash sales incl. GST = \$66 000; rent incl. GST = \$13 200; advertising incl. GST = \$6 600; depreciation is **not** a cash flow).

Budgeted Cash Flow Statement for
the year ending 30 June 2027

	\$	\$
Operating Activities		
Receipts from cash sales (incl. GST)	66 000	
Receipts from Accounts Receivable	130 000	
Payments to Accounts Payable	(118 000)	
Wages	(30 000)	
Rent expense (incl. GST)	(13 200)	
Advertising (incl. GST)	(6 600)	
Interest expense	(2 500)	
Net Cash Flows from Operating Activities		25 700
Financing Activities		
Loan repayment	(5 000)	
Drawings	(7 000)	
Net Cash Flows from Financing Activities		(12 000)
Net Increase in Cash		13 700
add expected Bank balance at start (1 July 2026)		9 000
Expected Bank balance at end (30 June 2027)		22 700

∴ expected Bank balance at 30 June 2027 = **\$22 700**.

d. Budgeted Balance Sheet (Capital = 81 000 + 13 500 – 7 000 = \$87 500; Loan = 25 000 – 5 000 = \$20 000).

Budgeted Balance Sheet of Fernway Furnishings as at 30 June 2027

	\$	\$
Current Assets		
Bank	22 700	
Accounts Receivable	28 000	
Inventory	39 000	89 700
Non-Current Assets		
Equipment	80 000	
less Accumulated Depreciation	(28 000)	52 000
Total Assets		141 700
Current Liabilities		
Accounts Payable	26 500	
GST Clearing	7 700	34 200
Non-Current Liabilities		
Loan – Seabank		20 000
Total Liabilities		54 200
Owner's Equity		
Capital	81 000	
add Budgeted Net Profit	13 500	

	\$	\$
less Drawings	(7 000)	87 500
Total Liabilities and Owner's Equity		141 700

Total Assets \$141 700 = Total Liabilities \$54 200 + Owner's Equity \$87 500, so the budget balances.

Question 2

a. Variance = actual – budget; each line is labelled from its effect on profit (revenue above budget = F; an expense above budget = U).

Variance Report —
Net Profit for the
month ended 30
June 2027

	Budget \$	Actual \$	Variance \$	F/U
Sales revenue	200 000	188 000	12 000	U
Cost of Sales	120 000	110 000	10 000	F
Wages	34 000	34 000	—	—
Rent expense	12 000	12 000	—	—
Advertising	8 000	3 000	5 000	F
Interest expense	4 000	4 500	500	U
Net Profit	22 000	24 500	2 500	F

b. Total favourable = 10 000 + 5 000 = \$15 000; total unfavourable = 12 000 + 500 = \$12 500. \$15 000 – \$12 500 = **\$2 500 F**, which equals the movement in the bottom line (24 500 – 22 000), so the report is internally consistent.

c. The label “favourable” describes only the **effect on profit** — spending \$5 000 less than budgeted on advertising did lift profit by \$5 000, other things equal. But it is **not necessarily good news**, because variance items are **interrelated**: the \$5 000 cut in advertising may well have **contributed to the \$12 000 unfavourable sales result**, and the sales shortfall (\$12 000 U) outweighs the advertising saving (\$5 000 F). Read together, the two variances suggest the business under-spent on the very activity that drives sales, so the “favourable” advertising variance is more likely a **symptom of a problem** than an achievement, and warrants investigation rather than praise.

Question 3

a. & b. Averages: 2026 — average total assets (380 000 + 420 000) ÷ 2 = \$400 000, average capital (340 000 + 380 000) ÷ 2 = \$360 000; 2027 — average total assets (420 000 + 580 000) ÷ 2 = \$500 000, average capital (380 000 + 420 000) ÷ 2 = \$400 000.

Indicator	Formula	2026	2027
Gross Profit Margin	Gross Profit ÷ Net Sales × 100	40.0%	40.0%
Net Profit Margin	Net Profit ÷ Net Sales × 100	12.0%	10.0%
Return on Owner's Investment	Net Profit ÷ Average Capital × 100	20.0%	17.5%
Return on Assets	Net Profit ÷ Average Total Assets × 100	18.0%	14.0%
Asset Turnover	Net Sales ÷ Average Total Assets	1.5 times	1.4 times

(2027 Gross Profit = 700 000 – 420 000 = 280 000, so GPM = 280 000 ÷ 700 000 = 40.0%.)

c. Return on Assets = Net Profit Margin $\times$ Asset Turnover: for 2027, $10.0\% \times 1.4 = \mathbf{14.0\%}$, which equals the Return on Assets calculated directly ($70\,000 \div 500\,000 \times 100 = 14.0\%$).

d. Vertical analysis (each line $\div$ Net Sales $\times 100$; total expenses = Gross Profit – Net Profit):

Item	2026 %	2027 %
Net Sales	100.0	100.0
less Cost of Sales	60.0	60.0
Gross Profit	40.0	40.0
less Total Expenses	28.0	30.0
Net Profit	12.0	10.0

e. The **Gross Profit Margin held steady at 40.0%**, so the buying-and-selling side (supplier prices, selling price and mark-up) is unchanged — the problem is **not** in cost of sales. Because the margin held while the **Net Profit Margin fell** from 12.0% to 10.0%, the vertical analysis pinpoints the cause: **total operating (other) expenses rose** from 28.0% to 30.0% of net sales. Return on Assets fell further, from 18.0% to 14.0%, because **both levers weakened** — the margin fell **and** Asset Turnover slipped from 1.5 to 1.4 times, as average total assets grew faster than sales (the closing asset base jumped to \$580 000), so newly acquired assets are not yet generating proportional sales.

Recommended strategy: target the rising operating-expense line the vertical analysis exposed — for example roster staff more efficiently or trim discretionary spending — to lift the Net Profit Margin; and work the enlarged asset base harder (promotion to convert the new assets into sales) to lift Asset Turnover. **Justification:** since $ROA = NPM \times ATO$, restoring either lever restores ROA, and attacking the specific expense line addresses the cause without disturbing the healthy 40.0% gross margin.

Question 4

a. Working Capital Ratio and Quick Asset Ratio (quick assets exclude inventory and prepaid expenses):

Working	\$
Current assets	120 000
Current liabilities	60 000
Working Capital Ratio = $120\,000 \div 60\,000$	2.00 : 1
Quick assets = $120\,000 - 52\,000 - 6\,000$	62 000
Quick Asset Ratio = $62\,000 \div 60\,000$ (current liabilities)	1.03 : 1

b. Average current liabilities = $(40\,000 + 60\,000) \div 2 = \$50\,000$. **Cash Flow Cover** = $90\,000 \div 50\,000 = \mathbf{1.8 \text{ times}}$.

c. Turnover indicators (turnover denominators for AR/AP are grossed up for GST because the control accounts are GST-inclusive):

Indicator	Working	Days
Inventory Turnover	avg inventory $(48\,000 + 52\,000) \div 2 = 50\,000$; $50\,000 \times 365 \div 288\,000$	63.4 days
Accounts Receivable Turnover	avg AR 33 000; net credit sales incl. GST $365\,000 \times 1.1 = 401\,500$; $33\,000 \times 365 \div 401\,500$	30.0 days
Accounts Payable Turnover	avg AP 44 000; net credit purchases incl. GST $292\,000 \times 1.1 = 321\,200$; $44\,000 \times 365 \div 321\,200$	50.0 days

(The inventory figures reconcile: $48\,000 + 292\,000$ credit purchases – $288\,000$ cost of goods sold = $\$52\,000$ closing inventory.)

d. The cash cycle is favourable: Accounts Receivable Turnover (30.0 days) is **shorter** than Accounts Payable Turnover (50.0 days), so Marlowe **collects from its customers about 20 days before it must pay its suppliers**, holding cash that supplier credit has effectively financed. Overall liquidity is **sound**: the Working Capital Ratio sits on the 2 : 1 benchmark, the Quick Asset Ratio of 1.03 : 1 shows the business can just cover its immediate debts without selling inventory, the Cash Flow Cover of 1.8 times shows trading generates cash comfortably above average current liabilities, and the favourable cash cycle reinforces this. **Limitation of ratio analysis (one):** the indicators are built on **historical (past) data**, so they describe a period that has ended and are only a guide to the future, not a guarantee of it — a change in trading conditions could quickly alter the picture. *(Any one sound limitation earns the mark — e.g. a single figure is meaningless without a benchmark; ratios ignore non-financial factors; or different accounting methods reduce comparability between firms.)*

Question 5

Repaying \$18 000 of Accounts Payable with Bank reduces **both** current assets (Bank) and current liabilities (Accounts Payable) by \$18 000:

Item	Before	After
Current assets	120 000	102 000
Current liabilities	60 000	42 000
Quick assets (CA – inventory – prepaid)	62 000	44 000
Working Capital Ratio	2.00 : 1	2.43 : 1
Quick Asset Ratio	1.03 : 1	1.05 : 1

New Working Capital Ratio = $102\,000 \div 42\,000 = \mathbf{2.43 : 1}$; new Quick Asset Ratio = $44\,000 \div 42\,000 = \mathbf{1.05 : 1}$.

Both ratios rise, so on the reported figures liquidity looks **stronger**. The reason is arithmetic: subtracting an equal amount from the top and bottom of a ratio that is **already above 1 : 1** increases the ratio. **Justification / caveat:** the improvement is in the **ratios**, not in the cash available — the actual cash buffer has fallen by \$18 000. Repaying early is worthwhile if it secures a settlement discount or protects supplier goodwill, but the higher ratios overstate any real gain in short-term security.

Topic 6 Test B — Short-answer recording

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

Topic 6 covers Chapters 17–19. Show all working. GST is 10% (1/11 of a GST-inclusive amount). Ratios to 1 : 1 are stated to two decimal places; margins, returns, “times” and turnover in days are all stated to one decimal place.

Question 1 (5 marks)

Tarnbrook Supplies budgets credit sales (plus GST) of **\$50 000** in May and **\$60 000** in June. From experience it expects to collect **30% of a credit sale in the month of sale and 70% in the following month**. There are no debts outstanding before May.

- a. Calculate the GST-inclusive amount of the credit sales for May and for June. 1 mark
- b. Calculate the budgeted cash to be received from Accounts Receivable in June. 2 marks
- c. Reconstruct the Accounts Receivable account for June, showing the opening and closing balances. 2 marks

Question 2 (5 marks)

Hollowfield Traders budgets credit purchases of inventory (plus GST) of **\$30 000** in May and **\$40 000** in June. It expects to pay **40% of a credit purchase in the month of purchase and 60% in the following month**. Nothing is owing to suppliers before May.

- a. Calculate the GST-inclusive amount of the credit purchases for May and for June. 1 mark
- b. Calculate the budgeted cash to be paid to Accounts Payable in June. 2 marks
- c. Reconstruct the Accounts Payable account for June, showing the opening and closing balances. 2 marks

Question 3 (6 marks)

Redgum Cafe budgeted and then reported the following for the month ended 31 May 2027:

Item	Budget \$	Actual \$
Sales revenue	80 000	86 000
Cost of Sales	48 000	52 000
Wages	14 000	13 500
Rent expense	5 000	5 000
Advertising	3 000	3 500

- a. Prepare a net profit variance report showing each variance in dollars and its F/U label. 4 marks
- b. State the net profit variance and verify it using the “total favourable – total unfavourable” check. 2 marks

Question 4 (7 marks)

Whitfield Traders reports for the year ended 30 June 2027: Net Sales \$400 000; Cost of Sales \$240 000; Net Profit \$40 000. Capital was \$180 000 at 1 July 2026 and \$220 000 at 30 June 2027. Total assets were \$240 000 at 1 July 2026 and \$260 000 at 30 June 2027. Total liabilities at 30 June 2027 were \$40 000.

- a. Calculate the Gross Profit Margin and the Net Profit Margin. 2 marks
- b. Calculate the Return on Owner’s Investment, the Return on Assets and the Asset Turnover. 3 marks
- c. Calculate the Debt Ratio and state what it measures. 1 mark
- d. The industry-average Return on Assets is 14.0%. State whether Whitfield’s Return on Assets is stronger or weaker than the benchmark. 1 mark

Question 5 (6 marks)

Camberdale Stores reports the following at 30 June 2027. Current Assets: Bank \$12 000, Accounts Receivable \$30 000, Inventory \$44 000, Prepaid expenses \$4 000. Current Liabilities: Accounts Payable \$40 000, GST Clearing \$5 000, Accrued wages \$5 000. Net cash flows from Operating activities were \$66 000, and current liabilities were \$38 000 at 1 July 2026. There was no bank overdraft.

- a. Calculate the Working Capital Ratio and the Quick Asset Ratio. 3 marks
- b. Calculate the Cash Flow Cover. 2 marks
- c. State whether Camberdale can meet its immediate current liabilities without selling inventory, and why. 1 mark

Question 6 (7 marks)

Pinehaven Trading provides the following for the year ended 30 June 2027. Inventory: \$36 000 at 1 July 2026, \$44 000 at 30 June 2027; Cost of Goods Sold \$200 000. Accounts Receivable: \$20 000 at 1 July 2026, \$24 000 at 30 June 2027; net credit sales \$292 000 (plus GST). Accounts Payable: \$22 000 at 1 July 2026, \$26 000 at 30 June 2027; net credit purchases \$208 000 (plus GST).

- a. Calculate the Inventory Turnover in days. 2 marks
- b. Calculate the Accounts Receivable Turnover in days. 2 marks
- c. Calculate the Accounts Payable Turnover in days. 2 marks
- d. State Pinehaven's cash-cycle position and whether it is favourable. 1 mark

Question 7 (4 marks)

Aldergrove Trading expects to begin July with a Bank balance of **\$8 000**. Its budget for the month ending 31 July 2027 is: receipts from cash sales (incl. GST) \$44 000; receipts from Accounts Receivable \$26 000; payments to Accounts Payable \$30 000; Wages \$11 000; Rent expense (incl. GST) \$4 400; GST paid to the ATO \$2 600; purchase of equipment \$18 000; and Drawings \$3 000.

- a. Prepare the Budgeted Cash Flow Statement for the month ending 31 July 2027. 3 marks
- b. State the expected Bank balance at 31 July 2027 and whether a bank overdraft is forecast. 1 mark

Topic 6 Test B — solutions

Question 1

a. May: $\$50\,000 \times 1.1 = \$55\,000$; June: $\$60\,000 \times 1.1 = \$66\,000$. (The collection pattern is applied to the GST-inclusive total the customer owes.)

b. June receipts = $30\% \times \$66\,000 + 70\% \times \$55\,000 = \$19\,800 + \$38\,500 = \$58\,300$.

c. Opening balance (1 Jun) = 70% of May's sales still owing = $\$38\,500$; closing balance (30 Jun) = 70% of June's sales = $\$46\,200$.

Accounts Receivable

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
1 Jun	Balance	38 500	30 Jun	Bank	58 300
30 Jun	Sales / GST Clearing	66 000	30 Jun	Balance	46 200
		104 500			104 500

(Of the \$58 300 collected, 1/11 = \$5 300 is GST cash.)

Question 2

a. May: $\$30\,000 \times 1.1 = \$33\,000$; June: $\$40\,000 \times 1.1 = \$44\,000$.

b. June payments = $40\% \times \$44\,000 + 60\% \times \$33\,000 = \$17\,600 + \$19\,800 = \$37\,400$.

c. Opening balance (1 Jun) = 60% of May's purchases still owing = $\$19\,800$; closing balance (30 Jun) = 60% of June's purchases = $\$26\,400$.

Accounts Payable

Date	Cross-reference	Amount \$	Date	Cross-reference	Amount \$
30 Jun	Bank	37 400	1 Jun	Balance	19 800
30 Jun	Balance	26 400	30 Jun	Inventory / GST Clearing	44 000
		63 800			63 800

Question 3

a. Variance = actual – budget; revenue above budget = F, an expense above budget = U.

Variance Report —

Net Profit for the
month ended 31

May 2027	Budget \$	Actual \$	Variance \$	F/U
Sales revenue	80 000	86 000	6 000	F
Cost of Sales	48 000	52 000	4 000	U
Wages	14 000	13 500	500	F
Rent expense	5 000	5 000	—	—
Advertising	3 000	3 500	500	U
Net Profit	10 000	12 000	2 000	F

b. Net profit variance = **\$2 000 F** (actual \$12 000 – budget \$10 000). Check: total favourable \$6 500 (6 000 + 500) – total unfavourable \$4 500 (4 000 + 500) = **\$2 000 F**, which matches the bottom line.

Question 4

Averages: average capital = $(180\,000 + 220\,000) \div 2 = \$200\,000$; average total assets = $(240\,000 + 260\,000) \div 2 = \$250\,000$. Gross Profit = $400\,000 - 240\,000 = \$160\,000$.

a. Gross Profit Margin = $160\,000 \div 400\,000 \times 100 = \mathbf{40.0\%}$; Net Profit Margin = $40\,000 \div 400\,000 \times 100 = \mathbf{10.0\%}$.

b. Return on Owner's Investment = $40\,000 \div 200\,000 \times 100 = \mathbf{20.0\%}$; Return on Assets = $40\,000 \div 250\,000 \times 100 = \mathbf{16.0\%}$; Asset Turnover = $400\,000 \div 250\,000 = \mathbf{1.6\text{ times}}$. (Check: $ROA = NPM \times ATO = 10.0\% \times 1.6 = 16.0\%$.)

c. Debt Ratio = $40\,000 \div 260\,000 \times 100 = \mathbf{15.4\%}$ — it measures the **proportion of the business's assets financed by outside liabilities** (its level of gearing); at 15.4% Whitfield is **lightly geared**. (Check: *total liabilities \$40 000 + capital \$220 000 = total assets \$260 000.*)

d. Return on Assets of 16.0% is **stronger** than the industry-average 14.0%.

Question 5

a. Current assets = $12\,000 + 30\,000 + 44\,000 + 4\,000 = \$90\,000$; current liabilities = $40\,000 + 5\,000 + 5\,000 = \$50\,000$.

Working	\$
Working Capital Ratio = $90\,000 \div 50\,000$	1.80 : 1
Quick assets = $90\,000 - 44\,000 - 4\,000$	42 000
Quick Asset Ratio = $42\,000 \div 50\,000$	0.84 : 1

b. Average current liabilities = $(38\,000 + 50\,000) \div 2 = \$44\,000$; **Cash Flow Cover** = $66\,000 \div 44\,000 = \mathbf{1.5\text{ times}}$.

c. **No**. The Quick Asset Ratio is **0.84 : 1**, below 1 : 1, so Camberdale's liquid assets (\$42 000) are **less** than its current liabilities (\$50 000); it could not meet its immediate debts without first selling inventory.

Question 6

a. Average inventory = $(36\,000 + 44\,000) \div 2 = \$40\,000$; Inventory Turnover = $40\,000 \times 365 \div 200\,000 = \mathbf{73.0\text{ days}}$. (The inventory figures reconcile: $36\,000 + 208\,000$ credit purchases $- 200\,000$ cost of goods sold = $\$44\,000$ closing inventory.)

b. Average Accounts Receivable = $(20\,000 + 24\,000) \div 2 = \$22\,000$; net credit sales incl. GST = $292\,000 \times 1.1 = \$321\,200$; Accounts Receivable Turnover = $22\,000 \times 365 \div 321\,200 = \mathbf{25.0\text{ days}}$.

c. Average Accounts Payable = $(22\,000 + 26\,000) \div 2 = \$24\,000$; net credit purchases incl. GST = $208\,000 \times 1.1 = \$228\,800$; Accounts Payable Turnover = $24\,000 \times 365 \div 228\,800 = \mathbf{38.3\text{ days}}$.

d. Accounts Receivable Turnover (25.0 days) is **shorter** than Accounts Payable Turnover (38.3 days), so Pinehaven collects from customers about **13 days before it must pay its suppliers** — a **favourable** cash cycle that supports liquidity.

Question 7

a. Budgeted Cash Flow Statement (depreciation is not budgeted here; the equipment purchase is the investing outflow).

Budgeted Cash Flow Statement for the month ending 31 July 2027	\$	\$
Operating Activities		
Receipts from cash sales (incl. GST)	44 000	
Receipts from Accounts Receivable	26 000	
Payments to Accounts Payable	(30 000)	
Wages	(11 000)	

Budgeted Cash Flow Statement for
the month ending 31 July 2027

	\$	\$
Rent expense (incl. GST)	(4 400)	
GST paid	(2 600)	
Net Cash Flows from Operating Activities		22 000
Investing Activities		
Purchase of equipment	(18 000)	
Net Cash Flows from Investing Activities		(18 000)
Financing Activities		
Drawings	(3 000)	
Net Cash Flows from Financing Activities		(3 000)
Net Increase in Cash		1 000
add expected Bank balance at start (1 July 2027)		8 000
Expected Bank balance at end (31 July 2027)		9 000

b. Expected Bank balance at 31 July 2027 = **\$9 000**. Because this is **positive**, **no bank overdraft is forecast**.