

Cambridge IGCSE · Accounting 0452 · Notes

Incomplete records

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Read first: [The accounting equation](#), [Control accounts](#), [Other payables and other receivables](#), [Sole traders](#)

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What you need to know

By the end of this topic you should be able to:

1. **Explain the disadvantages of not keeping a full set of accounting records:** what a trader loses by keeping only a bank statement, a few invoices and a list of who owes what.
2. **Prepare an opening and a closing statement of affairs:** a list of the business's assets and liabilities on one date, with the capital as the difference.
3. **Calculate the profit or loss for the year from the change in capital,** allowing for drawings and any extra capital the owner paid in.
4. **Calculate missing figures:** sales, purchases, gross profit, trade receivables, trade payables and others (cash takings, drawings, amounts owed to a supplier of equipment) from incomplete information.
5. **Prepare an income statement and a statement of financial position from incomplete records.**
6. **Make the same adjustments as for any sole trader** (topic 5.1): depreciation (straight-line, reducing balance and revaluation), expenses and income owing or prepaid, irrecoverable debts and a provision for doubtful debts, and goods taken by the owner.
7. **Use mark-up, margin and the rate of inventory turnover** to find missing figures.

Incomplete records questions are always about a **sole trader**, never a partnership or a company.

Understand it

What "incomplete records" means

A full set of records means **double entry**: every transaction in a book of prime entry and then in two ledger accounts, a trial balance at the end, then the financial statements. Many small traders don't do this. They keep a bank account, some invoices and receipts, and perhaps a note of who owes them money. That is **incomplete records** (sometimes called single entry).

The accountant then has to **rebuild** what is missing. There are two ways to find the profit:

1. **Compare capital at the start and the end of the year.** Capital is what the business is worth to the owner (assets less liabilities). If nothing else happened, a rise in capital is profit. This needs only lists of assets and liabilities.
2. **Rebuild the income statement.** Work out the missing sales, purchases and expenses from the bank account and from what customers and suppliers owe, then prepare the statements as usual. This takes longer but shows **how** the profit was made.

Both give the same profit if the figures are right, so one can check the other.

The statement of affairs

A **statement of affairs** lists the assets and liabilities of a business on one date and finds the capital as the difference. It looks just like a statement of financial position; the only difference is that its figures come from counting, lists and estimates instead of ledger balances.

Odile runs a cycle shop and keeps only a bank account and a list of what customers owe. On 1 January 2025 she had:

Odile: Statement of affairs at 1 January 2025	\$	\$
Non-current assets		
Shop equipment (net book value)		18 000
Current assets		
Inventory	7 400	
Trade receivables	3 100	
Other receivables (rent prepaid)	500	
Cash at bank	2 600	13 600
		31 600
Current liabilities		
Trade payables	4 300	
Other payables (electricity owing)	200	4 500
Capital		27 100

A year later, on 31 December 2025, she has equipment \$16 200, inventory \$8 900, trade receivables \$3 850, bank \$4 450, trade payables \$5 150 and electricity owing \$300. Her closing statement of affairs gives assets of \$33 400, liabilities of \$5 450 and **capital of \$27 950**.

Profit from the change in capital

Capital changes for only three reasons: the owner pays more money in (**capital introduced**), the business makes a **profit** (or a loss), and the owner takes money or goods out (**drawings**):

$$\text{opening capital} + \text{capital introduced} + \text{profit} - \text{drawings} = \text{closing capital}$$

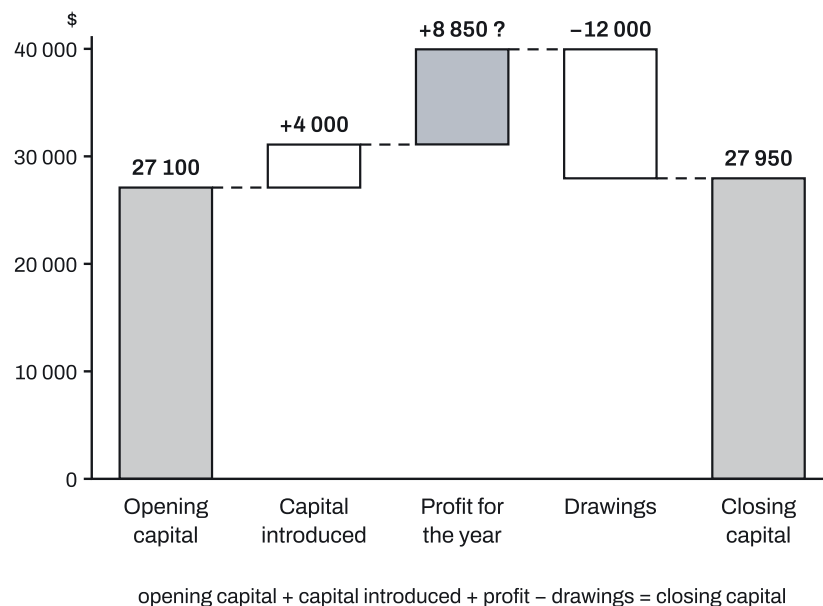
Rearranged to find the one thing you don't know:

$$\text{profit} = \text{closing capital} - \text{opening capital} + \text{drawings} - \text{capital introduced}$$

During the year Odile paid \$4 000 from her savings into the business, took \$11 600 from the bank for herself and took a bicycle costing \$400 for her son. Her drawings are $11\,600 + 400 = 12\,000$, and

$$\text{profit} = 27\,950 - 27\,100 + 12\,000 - 4\,000 = 8\,850.$$

Why **add** drawings? Odile took \$12 000 out, so her capital would have been \$12 000 higher if she hadn't; the profit made that money. Why **take off** capital introduced? The \$4 000 raised her capital, but it came from her savings, not from trading.



A **loss** works the same way: the answer comes out negative. Note that this method gives only the **total** profit; it can't say how much came from sales or went on wages.

Finding missing figures with accounts

The second method rebuilds each missing figure. The trick is to draw the **account** the figure would have been in (a sales ledger control account for credit sales, a purchases ledger control account for credit purchases, a bank or cash account for drawings) and fill in everything you know. The missing figure is whatever makes the two sides equal.

Credit sales. Odile's customers owed \$3 100 at the start and \$3 850 at the end; she received \$61 400 from them and allowed them \$350 cash discount.

Sales ledger control account	\$		\$
Balance b/d	3 100	Bank	61 400
Sales (missing figure)	62 500	Discount allowed	350
		Balance c/d	3 850

Sales ledger control account	\$	\$
	65 600	65 600

As a calculation: credit sales = money received + discount allowed + closing receivables – opening receivables = 61 400 + 350 + 3 850 – 3 100 = 62 500. With cash sales of \$18 000, her **revenue** is \$80 500.

Credit purchases. She owed suppliers \$4 300 at the start and \$5 150 at the end, paid them \$47 600 and received \$450 cash discount:

$$\text{credit purchases} = 47\,600 + 450 + 5\,150 - 4\,300 = 48\,900.$$

The bicycle she took home was bought for the business but not used by it, so its cost comes **off purchases** (and goes into drawings): purchases for the income statement are 48 900 – 400 = 48 500.

Expenses. Take what was paid, then remove last year's part and add this year's unpaid part (as in accruals and prepayments). Rent paid \$6 000, plus the \$500 prepaid at the start that belongs to this year, is \$6 500. Electricity paid \$1 400, less the \$200 owing at the start (last year's bill), plus \$300 owing at the end, is \$1 500.

The income statement from incomplete records

Odile: Income statement for the year ended 31 December 2025	\$	\$
Revenue (62 500 + 18 000)		80 500
Less Cost of sales		
Opening inventory	7 400	
Purchases (48 900 – 400)	48 500	
	55 900	
Less Closing inventory	8 900	47 000
Gross profit		33 500
Add Discount received		450
		33 950
Less Expenses		
Wages	14 950	
Rent (6 000 + 500)	6 500	
Electricity (1 400 – 200 + 300)	1 500	
Depreciation of equipment (18 000 – 16 200)	1 800	
Discount allowed	350	25 100
Profit for the year		8 850

The profit agrees with the capital comparison, \$8 850. The depreciation here is by **revaluation**: the equipment was worth \$18 000 and is now worth \$16 200, and nothing was bought or sold, so it lost \$1 800.

Her bank account also balances: 2 600 at the start + receipts of \$83 400 (customers \$61 400, cash sales \$18 000, capital \$4 000) – payments of \$81 550 (suppliers \$47 600, rent \$6 000, electricity \$1 400, wages \$14 950, drawings \$11 600) = 4 450.

Mark-up, margin and inventory turnover

Many traders know their pricing rule but not their sales or purchases. The rule links them.

- **Mark-up** is gross profit as a percentage of **cost of sales**: a 25% mark-up means goods costing \$100 are sold for \$125.
- **Margin** (gross margin) is gross profit as a percentage of **revenue**: in the same sale, the \$25 profit is $\frac{25}{125} = 20\%$ of the selling price.

So a 25% mark-up and a 20% margin describe the same prices. Draw the three lines with the percentages next to them:

	Mark-up 25%	Margin 20%
Cost of sales	100%	80%
Gross profit	25%	20%
Revenue	125%	100%

With a mark-up, cost of sales is the 100% line. With a margin, revenue is the 100% line. Then any one known figure gives the other two. Common pairs: mark-up 25% = margin 20%; mark-up 50% = margin $33\frac{1}{3}\%$; mark-up 100% = margin 50%; mark-up 20% = margin $16\frac{2}{3}\%$.

The **rate of inventory turnover** is how many times the average inventory is sold in a year:

$$\text{rate of inventory turnover} = \frac{\text{cost of sales}}{\text{average inventory}}, \quad \text{average inventory} = \frac{\text{opening} + \text{closing inventory}}{2}.$$

Knowing any two of cost of sales, average inventory and the rate gives the third.

Why keep full records?

Without double entry, a trader:

- has **no trial balance**, so arithmetic and posting errors go unnoticed;
- knows only the total profit (from capital) unless someone rebuilds every figure, so can't see which costs are rising;
- has no up-to-date record of who owes money or what is owed to suppliers, so debts can go uncollected, suppliers are paid late and **cash discounts are missed**;
- finds **theft, fraud** and missing inventory harder to spot;
- can't easily **compare** with past years or other businesses, or work out reliable ratios;
- may have figures that a **bank**, a lender or the tax authority won't accept, and has to pay an accountant for the time spent rebuilding them;

- relies on **estimates** (inventory, the value of equipment), so the profit is less accurate.

Key facts and formulas

There is no formula list in the IGCSE Accounting exam, so everything here must be learnt. The ratio formulas are the ones in the syllabus appendix.

Formula	Status
Capital = assets – liabilities (the statement of affairs)	Learn it
Capital = non-current assets + working capital – non-current liabilities	Learn it
Opening capital + capital introduced + profit – drawings = closing capital	Learn it
Profit = closing capital – opening capital + drawings – capital introduced	Learn it
Credit sales = receipts from customers + discount allowed + sales returns + irrecoverable debts + closing receivables – opening receivables	Learn it
Credit purchases = payments to suppliers + discount received + purchases returns + closing payables – opening payables	Learn it
Revenue = credit sales + cash sales; purchases = credit purchases + cash purchases – goods taken by the owner	Learn it
Expense for the year = paid + opening prepaid – opening owing + closing owing – closing prepaid	Learn it
Cost of sales = opening inventory + purchases – closing inventory	Learn it
Mark-up = $\frac{\text{gross profit}}{\text{cost of sales}} \times 100$	Learn it
Gross margin = $\frac{\text{gross profit}}{\text{revenue}} \times 100$	Learn it
Margin from mark-up: $\frac{\text{mark-up}}{100 + \text{mark-up}}$; mark-up from margin: $\frac{\text{margin}}{100 - \text{margin}}$	Learn it
Rate of inventory turnover = $\frac{\text{cost of sales}}{\text{average inventory}}$ (times)	Learn it
Trade receivables turnover = $\frac{\text{trade receivables}}{\text{credit sales}} \times 365$ (days)	Learn it
Trade payables turnover = $\frac{\text{trade payables}}{\text{credit purchases}} \times 365$ (days)	Learn it

How to do it

We have 88 tagged questions for this topic from 2021 to 2025 (53 different, as many appear on two or three paper variants): 79 one-mark multiple-choice questions from Paper 1 and 9 twenty-mark Paper 2 questions. All 9 Paper 2 questions mix several types, so the counts add up to 113. Other parts of those Paper 2 questions (selling on credit, cash or trade discounts, accounting principles, valuing inventory, the effect of a provision for doubtful debts) are taught in their own topics.

Question type	Questions
Profit or change in capital from capital comparisons	32
Mark-up, margin and inventory turnover	31
Missing figures from accounts (sales, purchases, receivables, payables, cash)	22
Why keep full records: what incomplete records can and can't show	10
Prepare an income statement from incomplete records	6
Trade receivables and trade payables turnover	6
Prepare a statement of affairs	3
Advise on keeping full records or employing a bookkeeper	3

1. Profit or change in capital from capital comparisons (32 questions)

1. **Find the capital at each date:** assets less liabilities (or you are given it, or the "net assets").
2. **Profit = closing capital – opening capital + drawings – capital introduced.** A negative answer is a **loss**.
3. **Drawings** include cash **and** goods taken by the owner.

For example, net assets rose from \$31 500 to \$36 200, drawings were \$8 300 and the owner paid in \$2 500 more: $\text{profit} = 4\,700 + 8\,300 - 2\,500 = 10\,500$.

Variations you will meet:

- **Only the changes are given** ("assets rose by \$..., liabilities fell by \$..."). Capital changes by the **change in assets minus the change in liabilities**: assets up raises capital, liabilities up lowers it, liabilities down raises it. Then add drawings and take off capital introduced.
- **The bank balance swings** from money in the bank to an overdraft: an asset disappears **and** a liability appears. From \$900 in the bank to a \$1 300 overdraft, net assets fall by $900 + 1\,300 = 2\,200$, not by \$400.
- **Given working capital** (current assets less current liabilities): $\text{capital} = \text{non-current assets} + \text{working capital} - \text{non-current liabilities}$.
- **A first year of trading**: opening capital is simply what the owner put in on the first day (cash paid in plus any asset brought in, such as a van).
- **Private money used for the business** (the owner buys a van for the business from a personal account): it is **capital introduced**, even if no cash went through the business bank.

- **"By how much did capital change?":** add up the changes in assets and liabilities. Depreciation lowers non-current assets, so it lowers capital; a bigger loan lowers capital; smaller net current assets lower capital.
- **Working backwards**, such as "capital fell by \$650 though the profit was \$9 400": drawings — capital introduced must be $9\,400 + 650 = 10\,050$. Test each option.
- **Which formula?** Choose the one that says $\text{profit} = \text{closing capital} - \text{opening capital} + \text{drawings} - \text{capital introduced}$. A rise in capital with no new capital paid in means the business made a **profit** (taking more drawings than the profit would have lowered it).
- **A table of adjustments** (Paper 2): start from opening capital; capital introduced and the profit are **added**, drawings (cash and goods) are **deducted**; the total of the adjustments takes you to closing capital.
- **A capital account** (Paper 2): credit side balance b/d (or bank for the owner's first payment), capital introduced and profit for the year; debit side drawings (cash and goods) and balance c/d.

2. Mark-up, margin and inventory turnover (31 questions)

1. **Write the three lines** (cost of sales, gross profit, revenue) with their percentages: mark-up puts cost of sales at 100%, margin puts revenue at 100%.
2. **Put in the figure you know** and scale to the one you need. Revenue \$84 000 with a 40% mark-up: cost of sales = $84\,000 \div 1.4 = 60\,000$, gross profit \$24 000.
3. **Use the cost of sales line** to find the missing inventory or purchases: purchases = cost of sales + closing inventory — opening inventory. With inventory of \$5 300 at the start and \$6 100 at the end, purchases = $60\,000 + 6\,100 - 5\,300 = 60\,800$.

Variations you will meet:

- **Revenue from purchases:** cost of sales = opening inventory + purchases — closing inventory, then apply the mark-up (multiply by $1 + \text{mark-up}$) or the margin (divide by $1 - \text{margin}$).
- **Closing inventory as the missing figure:** find cost of sales from revenue first, then closing inventory = opening inventory + purchases — cost of sales. In a first year there is no opening inventory. Take sales returns off revenue before applying the margin.
- **Inventory destroyed** (fire, flood, theft) partway through the year: find the cost of what was sold from the sales and the margin, then inventory that should be there = opening + purchases — cost of sales. Take off anything saved to find the loss.
- **Rate of inventory turnover:** cost of sales = rate $\times$ average inventory. Average inventory = $(\text{opening} + \text{closing}) \div 2$, so closing = $2 \times \text{average} - \text{opening}$. For example, cost of sales \$60 000 with inventories \$5 300 and \$6 100 gives an average of \$5 700 and a rate of $60\,000 \div 5\,700 = 10.53$ times.
- **Goods taken by the owner, valued at selling price:** turn them back into cost with the mark-up. Goods that would sell for \$1 560 with a 30% mark-up cost $1\,560 \div 1.3 = 1\,200$. A 25% mark-up means the cost is 80% of the selling price, not 75%.
- **Goods taken with no record:** if you know the margin, revenue and closing inventory, the goods taken are the gap: opening inventory + purchases — closing inventory — cost of sales (from the margin).
- **Expenses from the mark-up:** gross profit (from the mark-up) + other income — profit for the year = total expenses. A 100% mark-up means gross profit is half the revenue.

3. Missing figures from accounts (22 questions)

1. **Pick the account** the missing figure lives in: sales ledger control (credit sales, receipts, receivables), purchases ledger control (credit purchases, payments, payables), bank or cash (takings, drawings).
2. **Enter everything you know** on the correct side: on the sales ledger control account, opening receivables and sales on the debit side; money received, discount allowed, sales returns, irrecoverable debts and closing receivables on the credit side. The purchases ledger control account is the mirror image.
3. **Balance it**: the missing figure makes the two sides equal. Label it with its real name ("Sales", "Purchases", "Drawings"), not "balancing figure". If the question asks for the account itself, give every line a date, total both sides, enter the closing balance as "Balance c/d" on the last day of the year, and bring it down on the other side as "Balance b/d" dated the first day of the next year.
4. Add **cash** sales or purchases if the question wants the **total**.

Variations you will meet:

- **"Which information is needed?"**: for credit sales you need the opening and closing receivables, the money received and anything else that reduced what customers owe (discount allowed, sales returns, irrecoverable debts). **Trade discount** is never recorded, so it is never needed.
- **Only the change in receivables or payables is given**: pretend numbers with that difference (for example opening \$6 000, closing \$4 750 for a \$1 250 fall) and work as usual.
- **Opening balance missing**: rearrange: opening receivables = money received + closing receivables – credit sales. Find credit sales first if you are told what share of total sales was on credit.
- **Closing receivables or payables missing**: closing receivables = opening receivables + credit sales – money received – discounts, returns and irrecoverable debts. If all sales are on credit, credit sales is simply the revenue (perhaps found from a mark-up).
- **A balance given as a percentage of another**: "payables at the end were 20% more than at the start" means closing = opening $\times 1.2$; "inventory rose by \$500" means closing = opening + 500.
- **By how much did receivables change?**: closing – opening = credit sales – receipts – irrecoverable debts – discounts. Cash sales never go through receivables.
- **Cash takings when some takings were spent before banking**: takings = amount banked + wages and expenses paid from takings + owner's drawings from takings + closing cash in hand – opening cash in hand. For example, \$41 800 banked, \$6 200 wages and \$3 900 drawings paid from the till, \$240 left in the till at the end and none at the start: takings are \$52 140. Add everything; don't subtract the payments.
- **Drawings from the bank account**: opening balance + receipts – all other payments – closing balance. Enter the opening balance on the debit side (credit side if it was an overdraft) and the closing balance as balance c/d.
- **Cash drawn from the bank for two uses** (for example partly the owner's drawings, partly wages): split it and add each part to the right total.
- **A supplier of non-current assets**: work it like a payables account. Owed at the end = owed at the start + cost of new equipment bought on credit – paid. \$12 000 owed, new machinery \$4 500 on credit, \$7 000 paid: \$9 500 still owed.
- **Leave out** payments for non-current assets, loans and drawings when working out purchases of goods.
- **Goods taken by the owner**: take their cost off purchases.

4. Why keep full records: what incomplete records can and can't show (10 questions)

1. **Statement of affairs:** needs only the values of assets and liabilities on one date. That is all you can prepare if you know nothing else.
2. **Income statement:** needs revenue and expenses, so you need a **summary of receipts and payments** for the year as well (plus the opening and closing receivables, payables, inventory and accruals).
3. **Advantages of full double entry records** (Paper 2 "state" parts, or multiple choice). Think of three groups:
 - **Better information.** The owner can see sales, each expense and the profit broken down, month by month, so it is clear what is going well and what needs to change. Figures can be set beside last year's, or a rival's, to judge progress.
 - **Better control.** With a ledger account for every customer and supplier, the owner knows at once who is late paying (and can chase them) and when each supplier must be paid to keep a cash discount. A trial balance and regular checks make mistakes, theft and fraud easier to catch, though **not** impossible: full records can still contain errors.
 - **Less work at the year end.** The balances are already there, so the income statement and statement of financial position are prepared quickly and the profit is exact rather than estimated. A lender or the tax authority asking for figures can be answered straight away.
4. **Disadvantages of not keeping full records:** the list in "Understand it", such as no trial balance, missed cash discounts, harder to detect fraud, estimated figures and no breakdown of the profit.

5. Prepare an income statement from incomplete records (6 questions)

Paper 2, 8–11 marks. Work out every missing figure **first**, in labelled workings, then write the statement.

1. **Revenue:** credit sales (from receivables) + cash sales, or from cost of sales and the mark-up.
2. **Purchases:** credit purchases (from payables) + cash purchases – goods taken by the owner.
3. **Cost of sales and closing inventory:** if closing inventory is missing, find cost of sales from the mark-up or margin and put closing inventory in as the balancing figure, clearly shown.
4. **Gross profit**, then add other income such as discount received.
5. **Expenses**, each with its adjustment in brackets: expense = paid + opening prepaid – opening owing + closing owing – closing prepaid. So an amount prepaid **at the start** is added this year, and a wage owing **at the start** is taken off.
6. **Depreciation:** straight-line (rate × cost), reducing balance (rate × (cost – accumulated depreciation)), or revaluation (opening value + additions – closing value). Label it "Depreciation of ...", not the asset's name.
7. **Irrecoverable debts** and a new or changed **provision for doubtful debts** as expenses; private spending paid by the business (a family holiday, a share of a private car's running costs) taken out of expenses and treated as drawings.
8. **Profit for the year**, labelled. If the question gives the capital figures, check it against the capital method.

6. Trade receivables and trade payables turnover (6 questions)

1. **Trade receivables turnover** = $\frac{\text{trade receivables}}{\text{credit sales}} \times 365$ days. Use **credit** sales only: take cash sales out of total sales.
2. **Trade payables turnover** = $\frac{\text{trade payables}}{\text{credit purchases}} \times 365$ days. Use credit purchases **of goods for resale** only: leave out cash purchases and anything bought on credit that isn't inventory (such as equipment).
3. Use the **closing** balance unless the question says otherwise, and **round up** to the next whole day.

For example, credit sales \$128 000 and closing receivables \$11 900: $11\,900 \div 128\,000 \times 365 = 33.93$, so **34 days**.

7. Prepare a statement of affairs (3 questions)

Paper 2, 2–5 marks. Lay it out as a proper statement, not a sum or a trial balance:

1. **Heading**: "[Name] Statement of affairs at [date]".
2. **Non-current assets** at net book value (cost less accumulated depreciation).
3. **Current assets**: inventory, trade receivables (less any provision), other receivables (prepaid expenses), cash at bank and cash in hand.
4. **Current liabilities**: trade payables, other payables (expenses owing), a **bank overdraft**.
5. **Non-current liabilities**: loans repayable after more than a year.
6. **Capital**: total assets less total liabilities, the balancing figure.

If you are asked only to "calculate" the opening and closing capital, a line of workings is enough: add every asset, take off every liability. Watch for an item that is an asset on one date and a liability on the other (the bank).

8. Advise on keeping full records or employing a bookkeeper (3 questions)

Paper 2, 5 marks: two points for, two against, and a **recommendation** (1 mark). Tie each point to the business in the question: its profit, its cash, its growth.

Build each point as "what changes → why it matters to this business".

For (full records, or a bookkeeper to keep them):

- **Reliable figures for outsiders**. A bank deciding on a loan, or an investor, will trust properly kept accounts, and they can be handed over without delay.
- **Knowing where the money goes**. Revenue and each expense are recorded separately, so the owner can spot a cost that is growing or a product that isn't selling, and act before profit suffers.
- **Keeping cash under control**. Customer balances are always current, so slow payers are chased sooner; supplier balances show payment dates, so settlement discounts aren't lost. Both help the bank balance.
- **Fewer mistakes, less theft**. Double entry and a trial balance catch many errors, and fraud is harder to hide.
- **The owner's own hours**. Someone else doing the paperwork leaves the owner free to serve customers, find suppliers and plan growth.

- **Comparisons.** This year's results can be set against earlier years to see whether the business is improving.

Against:

- **Cost against profit.** The salary is a new expense every year; work out what share of the current profit it would take (a large share can wipe out most of the owner's reward).
- **Cash.** The pay leaves the bank every month, which hurts if the balance is small or the business is saving for something.
- **Better uses for the money.** The same sum could buy inventory, pay for equipment or clear an overdraft and its interest, which might raise profit more.
- **Not the whole job.** A bookkeeper records transactions; producing the year-end statements may still need an accountant's fee, and software or a desk may be needed too.
- **Trust and skill.** Handing the books to someone new is a risk if they make mistakes or are dishonest, and a good candidate may be hard to find.
- **A small, simple business** may manage well enough with its bank statements, so the extra detail may not be worth paying for.

Finish with "**I recommend that [name] should / should not ... because ...**", giving the reason that follows from your points.

Worked examples

Example 1

A trader does not keep a full set of accounting records. During the year:

- non-current assets increased by \$8 000;
- the bank balance changed from \$1 500 debit to a \$2 300 overdraft;
- trade payables decreased by \$1 200;
- the owner withdrew \$6 400 for personal use and paid in additional capital of \$3 000.

There were no other changes in assets or liabilities. What was the profit or loss for the year? **[1]**

A \$4 000 loss B \$8 800 profit C \$11 800 profit D \$14 800 profit

Change in net assets = $8\,000 - (1\,500 + 2\,300) + 1\,200 = 5\,400$. Profit = $5\,400 + 6\,400 - 3\,000 = 8\,800$. **B (1)**

C treats the bank change as only \$800; D adds the capital introduced; A takes off the drawings.

Example 2

A trader's revenue for the year was \$180 000 and her gross margin was 30%. Inventory at the start of the year was \$14 000 and the rate of inventory turnover was 8 times. What were her purchases for the year? **[1]**

A \$122 500 B \$126 000 C \$129 500 D \$143 500

Cost of sales = $180\,000 \times 70\% = 126\,000$. Average inventory = $126\,000 \div 8 = 15\,750$, so closing inventory = $2 \times 15\,750 - 14\,000 = 17\,500$. Purchases = $126\,000 + 17\,500 - 14\,000 = 129\,500$. **C (1)**

Example 3

Mateus sells garden tools. All his sales and purchases of goods are on credit apart from some cash sales. He does not keep a full set of records. At 1 July 2024 he had:

	\$
Fixtures and fittings: cost	24 000
Fixtures and fittings: accumulated depreciation	9 600
Inventory	11 250
Trade receivables	6 480
Insurance prepaid	360
Cash at bank	3 870
Trade payables	7 940
Wages owing	410

His bank account for the year ended 30 June 2025 showed:

Receipts	\$	Payments	\$
Trade receivables	94 300	Trade payables	61 850
Cash sales	12 600	Wages	17 300
		Rent and insurance	8 400
		General expenses	3 150
		Drawings	9 600

Additional information:

1. Mateus received cash discount of \$540 from suppliers. A customer's debt of \$260 was written off as irrecoverable.
2. At 30 June 2025, trade receivables were \$7 120 and trade payables were \$8 730.
3. Mateus took garden tools costing \$380 for his own use. No entry has been made.
4. He applies a mark-up of 60% on cost.
5. At 30 June 2025, wages of \$520 were owing and insurance of \$450 was prepaid.
6. Fixtures and fittings are depreciated at 10% a year on cost.
7. A provision for doubtful debts of 5% of trade receivables is to be created.

(a) Calculate Mateus's capital at 1 July 2024. **[3]**

(b) Calculate the purchases for the year. **[3]**

(c) Calculate the revenue for the year. **[3]**

(d) Prepare Mateus's income statement for the year ended 30 June 2025. The closing inventory should be clearly shown. **[11]**

(e) Calculate Mateus's capital at 30 June 2025. **[2]**

(a) Assets: $(24\,000 - 9\,600) + 11\,250 + 6\,480 + 360 + 3\,870 = 36\,360$ **(1)**. Liabilities: $7\,940 + 410 = 8\,350$ **(1)**. Capital at 1 July 2024 = $36\,360 - 8\,350 = \$28\,010$ **(1)OF**.

(b)

Purchases ledger control account	\$		\$
Bank	61 850	Balance b/d	7 940
Discount received	540 (1)	Purchases	63 180
Balance c/d	8 730		
	71 120		71 120

Opening and closing payables in the right places **(1)**. Credit purchases \$63 180, less goods taken \$380: purchases = **\$62 800 (1)OF**.

(c) Credit sales = $94\,300 + 260 + 7\,120 - 6\,480 = 95\,200$ **(1)** for the irrecoverable debt, **(1)** for both balances. Revenue = $95\,200 + 12\,600 = \$107\,800$ **(1)OF**.

(d) Cost of sales = $107\,800 \div 1.6 = 67\,375$, so closing inventory = $11\,250 + 62\,800 - 67\,375 = 6\,675$.

Mateus: Income statement for the year ended 30 June 2025

	\$	\$
Revenue		107 800 (1)OF
Less Cost of sales		
Opening inventory	11 250	
Purchases	62 800 (1)OF	
	74 050	
Less Closing inventory	6 675 (1)OF	67 375 (1)OF
Gross profit		40 425 (1)OF
Add Discount received		540 (1)
		40 965
Less Expenses		
Wages $(17\,300 - 410 + 520)$	17 410 (1)	

	\$	\$
Rent and insurance ($8\,400 + 360 - 450$)	8 310 (1)	
General expenses	3 150	
Depreciation of fixtures and fittings ($24\,000 \times 10\%$)	2 400 (1)	
Irrecoverable debts	260	
Provision for doubtful debts ($7\,120 \times 5\%$)	356 (1)	31 886
Profit for the year		9 079 (1)OF

(e) Capital at 30 June 2025 = $28\,010 + 9\,079 - (9\,600 + 380) = \text{\$27 109 (1)}$ for drawings including the goods, **(1)OF** for the answer.

A closing statement of affairs gives the same capital: fixtures \$12 000, inventory \$6 675, receivables \$6 764 (after the provision), insurance prepaid \$450 and bank \$10 470, less payables \$8 730 and wages owing \$520.

Example 4

Anouk runs a café and keeps no records apart from her bank statements. Last year her accountant estimated her profit at about \$15 000, and she is planning to ask the bank for a loan to open a second café. A part-time bookkeeper would charge \$4 200 a year to keep a full set of records.

Advise Anouk whether she should employ the bookkeeper. Justify your answer. **[5]**

For:

- The bank will want reliable, up-to-date financial statements before lending; full records make them quick to produce. **(1)**
- She would see which costs are rising and which menu items make money, which helps her decide whether a second café is wise. **(1)**
- Full records make errors and theft by staff easier to find. **(1)**

Against:

- \$4 200 is 28% of her profit of about \$15 000, so her profit would fall a lot. **(1)**
- Paying the bookkeeper uses cash she may need to open the second café. **(1)**

Recommendation: Anouk should employ the bookkeeper, because she needs reliable figures to get the loan and to manage two cafés, and the cost is worth it if the second café adds to her profit. **(1)**

Any four points (at least one on each side) earn 4 marks, and a recommendation that follows from them earns the fifth.

Common mistakes

- **Getting the profit formula the wrong way round.** Drawings are **added back** and capital introduced is **taken off**. Subtracting the drawings is a common slip.
- **Turning a mark-up into a margin wrongly.** A 25% mark-up means gross profit is 20% of selling price. Taking 25% of the selling price, or multiplying the selling price by 4, are errors examiners see again and again. Write the three lines with percentages first.
- **Not adding goods taken to cash drawings.** Total drawings are cash **plus** goods at cost.
- **Putting the closing bank balance in as the opening balance** when rebuilding the bank account, or leaving out a payment such as general expenses.
- **Writing the statement of affairs as a sum or a trial balance.** Use headings: non-current assets, current assets, current liabilities, capital.
- **Rebuilding the whole income statement to find profit** when the capital figures are given. It can work, but the capital method is quicker and less risky.
- **Including equipment or other non-current assets in purchases**, or trying to find purchases from the mark-up when the payables and payments are given.
- **Missing discounts, returns or irrecoverable debts** from a control-account reconstruction.
- **Cash takings:** subtracting the wages and drawings paid from the till instead of adding them to the amount banked.
- **Labels:** "Equipment" instead of "Depreciation of equipment"; a cost of sales total with no label. Leaving out the opening prepaid or opening owing adjustment on expenses.
- **Turnover ratios:** using total sales or purchases instead of credit ones, or not rounding up to the next whole day.
- **Advice with no decision.** "It depends" earns no recommendation mark.

How to get the marks

- **Show your workings** for every missing figure, labelled ("Credit purchases = $61\,850 + 540 + 8\,730 - 7\,940$ "). A working earns method marks even if one number is wrong, and later figures earn **own-figure (OF)** marks.
- **Either method is accepted** for missing figures: a calculation or a ledger account. In an account, label the missing figure with its name.
- **Statements:** the business's name, the statement's name and the date ("at 1 July 2024" for a statement of affairs; "for the year ended ..." for an income statement). Label every total: cost of sales, gross profit, profit for the year.
- **Closing inventory from a mark-up** must appear in the income statement as a figure, not be left out because it wasn't given.
- **"Calculate":** working, answer and \$. For ratios, give days or times, rounded up to the next whole day for turnover in days.
- **"State":** a short, precise point is enough; "more accurate" alone may need "profit is calculated more accurately".

- **"Advise ... Justify"**: points for and against, each linked to the question's figures, then "I recommend ...". Four points and a recommendation earn full marks.
- **Multiple choice**: write the formula first, put the figures in and check the sign of each change before choosing.

Quick check

1. A trader's net assets were \$42 600 at the start of the year and \$39 800 at the end. Drawings were \$9 500 and the owner paid in \$2 000 of extra capital. Calculate the profit or loss for the year.
2. Trade receivables were \$5 200 at the start of the year and \$6 050 at the end. Customers paid \$71 300, were allowed \$640 cash discount and returned goods sold for \$900. Calculate the credit sales.
3. A trader uses a mark-up of 40%. (a) State her gross margin, to two decimal places. (b) Her revenue was \$91 000: calculate her cost of sales and gross profit.
4. A flood destroyed a trader's inventory on 20 May. Inventory on 1 January was \$8 200; purchases from 1 January to 20 May were \$36 500 and sales \$45 000. The gross margin is 20%. Goods costing \$1 400 were saved. Calculate the cost of the inventory lost.
5. Credit purchases for the year were \$146 000 and trade payables at the year end were \$17 900. Calculate the trade payables turnover in days.

Answers

1. Profit = $39\,800 - 42\,600 + 9\,500 - 2\,000 = \text{\$4\,700 profit}$.
2. Credit sales = $71\,300 + 640 + 900 + 6\,050 - 5\,200 = \text{\$73\,690}$.
3. (a) Margin = $\frac{40}{140} \times 100 = \textbf{28.57\%}$. (b) Cost of sales = $91\,000 \div 1.4 = \text{\$65\,000}$; gross profit = $91\,000 - 65\,000 = \text{\$26\,000}$.
4. Cost of sales = $45\,000 \times 80\% = 36\,000$. Inventory that should be there = $8\,200 + 36\,500 - 36\,000 = 8\,700$. Lost = $8\,700 - 1\,400 = \text{\$7\,300}$.
5. $17\,900 \div 146\,000 \times 365 = 44.75$, rounded up to **45 days**.

Past questions to try

- **0452/23/M/J/22 Q2**: a bank account with drawings as the missing figure, goods taken at selling price, a statement of affairs and profit from capital.
- **0452/21/M/J/24 Q5**: purchases split between cash and credit, then an income statement from a mark-up with owing and prepaid expenses.
- **0452/12/F/M/25 Q30**: the change in capital from changes in assets and liabilities, including a bank balance that becomes an overdraft.
- **0452/11/M/J/22 Q31**: the value of inventory destroyed in a fire, from the gross margin.