

Analysis and communication of accounting information

AS

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Read first: [Preparation of financial statements](#)

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What you need to know

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

1. **Say what each group of users wants from the financial statements, and why:** owners, managers, employees, investors, lenders, suppliers, customers, the government, and public and environmental bodies. Tell internal users (owners running the business, managers, employees) from external ones.
2. **Explain how the information each user needs can be analysed and presented to them,** for example as ratios compared over time or against similar businesses.
3. **Calculate the AS Level ratios with the syllabus formulas,** which are the only ones accepted:
 - profitability: gross profit margin, mark-up, profit margin, return on capital employed (ROCE), expenses to revenue (or operating expenses to revenue);
 - liquidity: current ratio, acid test ratio;
 - efficiency: non-current asset turnover, trade receivables turnover (days), trade payables turnover (days), inventory turnover (days), rate of inventory turnover (times).
4. **Interpret the ratios:** say whether profitability, liquidity and efficiency have got better or worse, compared with last year or with other businesses, and what that means.
5. **Suggest ways to improve** profitability, liquidity and efficiency, and see their drawbacks.
6. **State and explain the limitations of accounting information** and of ratio analysis.
7. **Use all of this to make and justify a decision** or give advice.

Gearing, interest cover, the working capital cycle and the investment ratios (earnings per share, dividend yield and so on) are A Level (topic 3.5), so they are left out here.

Understand it

Who reads the accounts, and what they want

Financial statements are read by people with different stakes in the business. Each group asks its own question, so each looks at different figures.

User	Internal or external	What they want to know	Figures and ratios they look at
Owners (sole trader, partners) and shareholders	Internal if they run it; shareholders in a company are external	Is my investment earning a good return, and is it safe?	Profit, ROCE, profit margin, dividends, liquidity
Managers and directors	Internal	How are we doing, and where must we act? Planning and control	Every ratio, compared with budgets and last year
Employees	Internal	Is my job secure? Can the business afford pay rises? Will it keep trading?	Profit, liquidity
Potential investors	External	Is this a better use of my money than the alternatives?	Profitability, ROCE, growth
Lenders (banks, debenture holders)	External	Can the business pay interest and repay the loan? Is it a good credit risk?	Liquidity, profit, assets available as security
Suppliers (trade payables)	External	Will we be paid, and on time?	Current and acid test ratios, trade payables days
Customers	External	Will the business survive to supply goods, spares and warranties?	Liquidity, profit
Government	External	How much tax is due? How is the economy doing?	Profit (for tax), revenue, employment
Public and environmental bodies	External	Is the business acting responsibly: pollution, local jobs, community?	Non-financial information as well as profit

Suppliers and lenders care mostly about **liquidity**: whether the business can pay its short-term debts. Owners and investors care most about **profitability** and the return on their capital. Managers need everything, because they run the business day to day.

Communicating the information. Raw statements mean little to most users. The accountant picks the figures each user needs, turns them into ratios, and sets each ratio beside last year's figure, a budget or an industry average, so that the user sees at once whether things are better or worse. A short written comment then explains the reasons and what should be done. A company's published financial statements go to shareholders every year; managers get far more detail, more often, inside the business.

Why ratios?

A profit of \$80 000 is good for a corner shop and poor for a supermarket. A ratio relates one figure to another (profit to revenue, profit to the capital used), so businesses of different sizes, and the same business in different years, can be compared fairly.

The AS ratios fall into three groups:

- **Profitability:** how well the business turns revenue and capital into profit.
- **Liquidity:** whether it can pay its debts as they fall due.
- **Efficiency:** how well it uses its assets: how fast inventory sells, how fast customers pay, how fast suppliers are paid, and how much revenue the non-current assets produce.

A worked set of accounts

All the ratios below come from this company, Kestrel Limited, for the year ended 31 December 2025.

Statement of profit or loss	\$
Revenue (90% on credit)	800 000
Cost of sales: opening inventory 46 000 + purchases 520 000 (of which 500 000 on credit) – closing inventory 54 000	512 000
Gross profit	288 000
Operating expenses	208 000
Profit from operations	80 000
Finance costs (6% debentures)	6 000
Profit for the year	74 000
Statement of financial position at 31 December 2025	\$
Non-current assets at net book value	432 000
Current assets: inventory 54 000, trade receivables 72 000, cash in hand 2 000	128 000
Total assets	560 000

Statement of financial position at 31 December 2025**\$**

Share capital	300 000
Retained earnings	100 000
6% debentures (2030)	100 000
Current liabilities: trade payables 45 000, other payables 3 000, bank overdraft 12 000	60 000
Total equity and liabilities	560 000

Profitability ratios

Gross profit margin = $\frac{288\,000}{800\,000} \times 100 = 36.00\%$. Out of every \$1 of sales, 36 cents is left after paying for the goods sold. It depends on **selling prices** and on **what the goods cost** (supplier prices, trade discounts, the mix of products).

Mark-up = $\frac{288\,000}{512\,000} \times 100 = 56.25\%$. The same gross profit, but measured against **cost of sales** instead of revenue. A trader who "adds 56.25% to cost" makes a 36% margin. Margin is always the smaller of the two, because revenue is bigger than cost of sales. To switch between them:

$$\text{margin} = \frac{\text{mark-up}}{100 + \text{mark-up}} \times 100, \quad \text{mark-up} = \frac{\text{margin}}{100 - \text{margin}} \times 100.$$

For example, a 25% mark-up is a $\frac{25}{125} \times 100 = 20\%$ margin, and a 36% margin is a $\frac{36}{64} \times 100 = 56.25\%$ mark-up.

Profit margin = $\frac{74\,000}{800\,000} \times 100 = 9.25\%$. It uses **profit for the year** (after finance costs), so it shows what is left after **all** costs. If the gross margin rises but the profit margin falls, the problem lies below gross profit: expenses have risen faster than sales, or other income has dropped.

Operating expenses to revenue = $\frac{208\,000}{800\,000} \times 100 = 26.00\%$. Each \$1 of sales carries 26 cents of running costs. A **rise** in this ratio is bad.

Return on capital employed (ROCE) compares the profit made with all the long-term money invested in the business.

Equity and liabilities	
Share capital	\$300 000
Retained earnings	\$100 000
6% debentures	\$100 000
Current liabilities	\$60 000

Capital employed
\$500 000

not capital employed
(includes the overdraft)

Profit for the year \$74 000	+	Finance costs \$6 000	=	Profit from operations \$80 000
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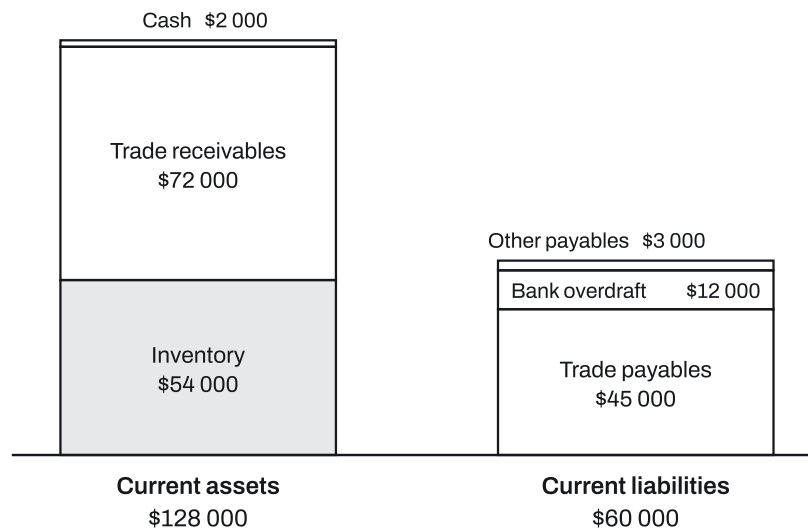
$$\text{ROCE} = 80\,000 \div 500\,000 \times 100 = 16\%$$

- The top line is **profit from operations**: profit **before** finance costs (and before tax, for a company). If you are given profit for the year, **add back** the finance costs (and any tax). Here $74\,000 + 6\,000 = 80\,000$.
- The bottom line is **capital employed = issued shares + reserves + non-current liabilities** = $300\,000 + 100\,000 + 100\,000 = 500\,000$. The same figure is total assets less current liabilities ($560\,000 - 60\,000$). The bank overdraft is a **current** liability, so it is **not** part of capital employed.

$$\text{ROCE} = \frac{80\,000}{500\,000} \times 100 = 16.00\%.$$

The two lines match: profit from operations is the return to **everyone** who supplied long-term capital, shareholders and debenture holders alike, so the interest paid to debenture holders has to be put back. Capital employed is taken at the year end, so it already includes this year's retained profit.

Liquidity ratios



$$\text{Current ratio} = 128\,000 : 60\,000 = 2.13 : 1$$

$$\text{Acid test} = (128\,000 - 54\,000) : 60\,000 = 1.23 : 1$$

Current ratio = $\frac{128\,000}{60\,000} = 2.13 : 1$. There are \$2.13 of current assets for every \$1 due within a year.

Acid test ratio = $\frac{128\,000 - 54\,000}{60\,000} = 1.23 : 1$. Inventory is left out because it has to be **sold** (and often the customer has to pay) before it becomes cash. The acid test asks: could the business pay its short-term debts **without selling any more inventory**?

Both are written **as a ratio**, ": 1". Current liabilities include the bank overdraft and any part of a loan due within twelve months.

What is "good"? There is no single right figure: it depends on the trade. A supermarket sells inventory for cash every day and can manage on low ratios; a manufacturer with slow-moving stock needs higher ones. Too low means difficulty paying suppliers and lenders. **Too high** is not good either: cash and receivables sitting idle earn nothing, so money that could be invested is wasted. That is why the comparison with **similar businesses** matters.

Efficiency ratios

Non-current asset turnover = $\frac{800\,000}{432\,000} = 1.85$ times. Each \$1 of non-current assets (at **net book value**, not cost) produced \$1.85 of revenue. "Net revenue" means revenue less any sales returns. Buying new assets lowers the ratio at first; depreciation lowers net book value every year and pushes it up even when sales are flat.

Trade receivables turnover (days) = $\frac{72\,000}{720\,000} \times 365 = 36.5$, so **37 days**. Credit customers take about 37 days to pay. Use **credit sales** only: cash sales ($800\,000 \times 10\% = 80\,000$) never create a receivable.

Trade payables turnover (days) = $\frac{45\,000}{500\,000} \times 365 = 32.85$, so **33 days**. The business takes about 33 days to pay suppliers. Use **credit purchases** only.

Inventory turnover (days). Average inventory = $\frac{46\,000 + 54\,000}{2} = 50\,000$, so

$$\frac{50\,000}{512\,000} \times 365 = 35.64, \text{ so } 36 \text{ days.}$$

On average goods sit in the warehouse for 36 days before they are sold.

Rate of inventory turnover = $\frac{512\,000}{50\,000} = 10.24$ times. The average inventory is sold and replaced about 10 times a year. The two inventory ratios say the same thing from opposite sides: **fewer days** is the same as **more times**, and $365 \div 10.24 = 35.64$ days.

Day ratios are **rounded up** to the next whole day (35.64 becomes 36, and even 36.1 would become 37): the examiners have said so, and the mark schemes do it.

A shorter receivables period is better (cash comes in sooner). Fewer inventory days is better (less cash tied up, less risk of goods going out of date). For payables, a **longer** period helps the business's cash, but paying too late risks losing cash discounts, the supplier's goodwill and even supplies. Many businesses aim to collect from customers **faster** than they pay suppliers: Kestrel collects in 37 days and pays in 33, so it pays out before the cash comes in.

Interpreting a ratio

A ratio on its own says little. Always compare it with something:

- **last year** (or several years): is it improving or getting worse?
- **similar businesses** or the **industry average**: is it better or worse than others in the same trade?
- a **budget** or target.

Then give the **reason** and the **effect**. "The receivables period rose from 37 to 45 days" earns little. "The receivables period worsened from 37 to 45 days, so customers are paying more slowly; cash comes in later and the risk of irrecoverable debts rises" is what earns the marks.

Improving the ratios

To improve	Ways	Watch out for
Gross margin and mark-up	Raise selling prices; find cheaper suppliers; get trade discounts for bulk buying; sell more high-margin products	Higher prices may cut sales volume
Profit margin, expenses to revenue	Cut or control expenses (rent, wages, advertising); increase other income	Cutting advertising or staff may lose sales

To improve	Ways	Watch out for
ROCE	Increase profit from operations; sell unused non-current assets; repay long-term loans that are not needed	Selling assets may reduce future capacity
Current and acid test ratios	Bring new money in or keep it in: a long-term loan, new capital or shares, selling surplus non-current assets, lower drawings or dividends; turn inventory into cash	Paying off current liabilities from current assets often changes little (see How to do it, type 6)
Inventory days, rate of inventory turnover	Sell faster: price cuts, promotions, advertising, a product range customers want; hold less inventory (smaller, more frequent orders)	Stock-outs and lost sales, lost bulk discounts, more delivery and ordering costs
Receivables days	Cash discounts for prompt payment; tighter credit checks and limits; chasing overdue accounts	Discounts cost money; strict terms may drive customers away
Non-current asset turnover	Increase revenue from the same assets; sell or stop using idle assets	Selling assets may leave too little capacity when sales grow

Limitations of accounting information and ratios

Ratios only show **that** something changed, not always **why**. Their other limits:

- They use **historic** data, which may be out of date by the time it is read. Other businesses' accounts may come out late or not at all.
- They ignore **inflation** and the **time value of money**, so money figures from different years are not strictly comparable.
- They ignore **non-financial** factors: staff skills and morale, the quality of products, customer loyalty, the environment, the economy.
- Businesses use different **accounting policies** (depreciation methods, inventory valuation) and **classify** items differently, so a comparison is not like for like.
- Businesses have different **asset structures**: one owns its premises, another rents them, which changes ROCE and non-current asset turnover.
- A statement of financial position is a picture on one day, which may not be typical (a **seasonal** business), and figures can be made to look better at the year end (**window dressing**).
- An average for the industry hides a wide range of businesses of different sizes and in different places.

Key facts and formulas

"Learn it" means you must remember it. The formulas come from the syllabus appendix, and **only these formulas earn marks**, but the appendix is **not** printed in the exam paper, so none of them is given.

Formula	Status
Gross profit margin = $\frac{\text{Gross profit}}{\text{Revenue}} \times 100$	Learn it
Mark-up = $\frac{\text{Gross profit}}{\text{Cost of sales}} \times 100$	Learn it
Profit margin = $\frac{\text{Profit for the year (after interest)}}{\text{Revenue}} \times 100$	Learn it
ROCE = $\frac{\text{Profit from operations}}{\text{Capital employed}} \times 100$	Learn it
Capital employed = issued shares + reserves + non-current liabilities	Learn it
Expenses to revenue = $\frac{\text{Expenses}}{\text{Revenue}} \times 100$; operating expenses to revenue = $\frac{\text{Operating expenses}}{\text{Revenue}} \times 100$	Learn it
Current ratio = $\frac{\text{Current assets}}{\text{Current liabilities}}$, written $x : 1$	Learn it
Acid test ratio = $\frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$, written $x : 1$	Learn it
Non-current asset turnover = $\frac{\text{Net revenue}}{\text{Total net book value of non-current assets}}$ times	Learn it
Trade receivables turnover = $\frac{\text{Trade receivables}}{\text{Credit sales}} \times 365 \text{ days}$	Learn it
Trade payables turnover = $\frac{\text{Trade payables}}{\text{Credit purchases}} \times 365 \text{ days}$	Learn it
Inventory turnover = $\frac{\text{Average inventory}}{\text{Cost of sales}} \times 365 \text{ days}$	Learn it
Rate of inventory turnover = $\frac{\text{Cost of sales}}{\text{Average inventory}}$ times	Learn it
Average inventory = $\frac{\text{Opening inventory} + \text{Closing inventory}}{2}$	Learn it
Cost of sales = opening inventory + purchases – closing inventory	Learn it
Profit from operations = profit for the year + finance costs (+ tax, for a company)	Learn it
Margin = $\frac{\text{mark-up}}{100 + \text{mark-up}} \times 100$; mark-up = $\frac{\text{margin}}{100 - \text{margin}} \times 100$	Learn it

Useful rearrangements for working back:

- Revenue = cost of sales $\times \frac{100}{100 - \text{margin}}$, or cost of sales $\times \frac{100 + \text{mark-up}}{100}$.
- Cost of sales = rate of inventory turnover $\times$ average inventory; closing inventory = $2 \times$ average – opening.
- Inventory = (current ratio – acid test ratio) $\times$ current liabilities.

How to do it

In the Paper 1 and Paper 2 questions we have tagged for this topic (101 questions, 2021–2025), the types came up this often. Paper 1 questions are 1-mark multiple choice. Paper 2 questions are 15-mark structured questions, and each of those mixes several types, so the counts add up to 130.

Question type	Questions
Calculate a ratio from given figures	35
Work back from a ratio to a missing figure	16
Identify users and what information they need	15
State a formula or identify a ratio's parts or group	14
State limitations of ratios and accounting information	13
Predict the effect of a transaction, error or policy on a ratio	11
Interpret or evaluate ratios (compare years or benchmarks, advise)	9
Suggest reasons for a ratio's change	8
Suggest ways to improve a ratio (and drawbacks)	5
Explain why a ratio matters to a business	4

1. Calculate a ratio from given figures (35 questions)

1. **Write the formula** exactly as in the table above, in words. On Paper 2 the formula often earns its own mark, and "showing the formula used" is part of the question.
2. **Find each figure**, adjusting where the question needs it:
 - **ROCE**: add finance costs (and tax) back to profit for the year; capital employed is shares + all reserves + non-current liabilities, never the overdraft.
 - **Receivables and payables days**: strip out cash sales and cash purchases ("cash sales were 15% of total sales" means credit sales are 85%).
 - **Inventory ratios**: build cost of sales (opening inventory + purchases – closing, or from a margin or mark-up), and use **average** inventory.
 - **Current and acid test**: count the bank overdraft and loan instalments due within a year as current liabilities; take receivables **net of** the allowance for irrecoverable debts.

- **Non-current asset turnover:** net book value, not cost.

3. **Substitute and calculate.** Give the accuracy asked: percentages usually to two decimal places, day ratios **rounded up** to a whole day, liquidity ratios as " $x : 1$ ".

Variations you will meet:

- **ROCE in a later year.** If a debenture was issued at the start of the year, the interest on it is a finance cost to add back, and the debenture is in capital employed. Year-end equity includes the profit kept this year (profit for the year less dividends paid).
- **Profit from operations from the retained earnings.** The change in retained earnings + dividends paid = profit for the year; then add back finance costs.
- **Total assets – current liabilities** is another way to reach capital employed: it gives the same answer as shares + reserves + non-current liabilities.

2. Work back from a ratio to a missing figure (16 questions)

Write the formula, put in what you know, and solve for the missing figure. Show each step: the mark scheme gives a mark for each figure along the way.

- **Revenue from cost of sales and the margin:** a 40% margin means cost of sales is 60% of revenue, so $\text{revenue} = \text{cost of sales} \times \frac{100}{60}$. With a mark-up of 25%, $\text{revenue} = \text{cost of sales} \times 1.25$.
- **Cost of sales from revenue and the margin:** $\text{cost of sales} = \text{revenue} \times (100 - \text{margin})\%$.
- **Closing inventory from the rate of turnover:** $\text{cost of sales} \div \text{rate} = \text{average inventory}$; $\text{closing} = 2 \times \text{average} - \text{opening}$.
- **Opening inventory:** $\text{cost of sales} = \text{opening} + \text{purchases} - \text{closing}$, so $\text{opening} = \text{cost of sales} - (\text{purchases} - \text{closing})$.
- **Purchases:** $\text{purchases} = \text{cost of sales} + \text{closing} - \text{opening}$.
- **From the liquidity ratios:** $\text{current assets} = \text{current ratio} \times \text{current liabilities}$, $\text{liquid assets} = \text{acid test} \times \text{current liabilities}$, and the difference is the inventory. If the current ratio and the current assets are known, $\text{current liabilities} = \text{current assets} \div \text{current ratio}$, and trade payables are what is left after the other current liabilities.
- **From ROCE:** $\text{profit from operations} = \text{ROCE} \times \text{capital employed}$; then take off finance costs and tax to reach profit for the year.

3. Identify users and what information they need (15 questions)

1. Decide whether the user is **internal** (owner-managers, directors, managers, employees) or **external** (banks and other lenders, debenture holders, suppliers, customers, potential investors, government, public and environmental bodies).
2. Match the user to their main question from the table in "Understand it": suppliers and lenders → liquidity and whether they will be paid; shareholders and investors → return on and security of their investment; employees → job security and the business continuing to trade; managers → planning and control; government → tax.

3. On Paper 2, "explain one reason" needs the reason **and** its development, for example "shareholders want to know the return on their investment (1) so they can decide whether to keep their shares or sell them (1)".

A shareholder does **not** learn the current share price from the financial statements; that comes from the stock market.

4. State a formula or identify a ratio's parts or group (14 questions)

- **State the formula:** write it in words exactly as in the syllabus, including "× 100" or "× 365" where it belongs.
- **Name the numerator or denominator:** for the rate of inventory turnover the top is cost of sales and the bottom is average inventory; for receivables days the bottom is credit sales.
- **Sort ratios into groups:** profitability (gross margin, mark-up, profit margin, ROCE, expenses to revenue), liquidity (current, acid test), efficiency (non-current asset turnover and the four inventory, receivables and payables ratios). The expenses to revenue ratio is a **profitability** ratio.
- **Say what a ratio measures:** ROCE measures how much profit from operations the business makes on the long-term capital invested in it.
- **Margin against mark-up:** both use gross profit; margin divides by revenue, mark-up divides by cost of sales.
- **Pick the ratio for a job:** the acid test for the ability to meet immediate cash needs; the gross margin to estimate the cost of inventory lost in a fire (work out cost of sales from revenue, then closing inventory).

5. State limitations of ratios and accounting information (13 questions)

Use the list in "Understand it". **"State"** earns 1 mark per different point, so give distinct points (historic, inflation, non-financial factors, different policies, and so on), not the same idea twice. **"Explain"** earns 2 marks per point: the limitation, then its consequence, for example "other businesses may use different depreciation methods (1), so their profits are not worked out on a like-for-like basis and the comparison may mislead (1)".

On Paper 1, a statement that is **not** a limitation is often "ratios can be compared with previous years" or "with industry averages": that is what ratios are **for**.

When asked whether comparing with other businesses is useful, give both sides: it shows how you perform against rivals, but the figures may be built on different policies, sizes and circumstances.

6. Predict the effect of a transaction, error or policy on a ratio (11 questions)

1. Write down what the transaction does to **current assets**, **inventory** and **current liabilities** (and, for other ratios, to profit or capital employed).
2. Work out the effect on each ratio. Try numbers if unsure.

Transaction	Current ratio	Acid test
Long-term loan or share issue paid into the bank	Rises	Rises

Transaction	Current ratio	Acid test
Non-current asset sold for cash	Rises	Rises
Non-current asset bought, or long-term loan repaid, by cheque	Falls	Falls
Allowance for irrecoverable debts created or increased; a debt written off	Falls	Falls
Inventory written off; owner takes goods for own use	Falls	No change
Inventory bought for cash from a positive bank balance	No change	Falls
Paying a trade payable from an overdrawn bank account	No change	No change
Paying a trade payable from a positive bank balance	Rises if above 1 : 1	Rises if above 1 : 1, falls if below

The last row is the one that catches people. When the same amount comes off both the top and the bottom, a ratio above 1 rises and a ratio below 1 falls. For example, liquid assets of 12 000 and current liabilities of 20 000 give an acid test of 0.6 : 1; paying 5 000 of payables gives $\frac{7\,000}{15\,000} = 0.47 : 1$, which is worse. When the bank is overdrawn, the payment raises the overdraft by the same amount that payables fall, so current liabilities do not change at all.

Variations you will meet:

- **An error in the calculation.** Using closing inventory instead of average inventory: with cost of sales 300 000, opening inventory 20 000 and closing inventory 30 000, the correct rate is $\frac{300\,000}{25\,000} = 12$ times, but $\frac{300\,000}{30\,000} = 10$ times, which is 2 times too low.
- **Profit or capital employed changes.** A revaluation of non-current assets raises capital employed (the revaluation reserve) and net book value, so ROCE and non-current asset turnover both fall. An understated closing inventory understates gross profit and the margin.
- **Non-current asset turnover** rises with no change in revenue when depreciation is more than the cost of new assets bought.

7. Interpret or evaluate ratios: compare years or benchmarks, advise (9 questions)

1. **For each ratio, say whether it has improved or worsened**, not just "gone up" or "gone down". A higher acid test is not automatically better; a longer payables period is not automatically worse.
2. **Compare with both last year and the benchmark** where you are given both. A ratio can improve on last year and still be worse than similar businesses.
3. **Say what it means for the business:** easier or harder to pay short-term debts; cash tied up in inventory or receivables; liquid assets lying idle; paying suppliers late risks losing discounts or supplies.
4. **Give a decision** ("I agree / do not agree", "the business should ...") and back it with a reason. The decision mark needs that supporting comment.

For "Do you agree?" questions, the mark scheme typically allows up to 2 points on each side plus 1 for the justified decision, so a one-sided answer caps you at about half marks.

8. Suggest reasons for a ratio's change (8 questions)

Link each ratio to the figures that drive it:

- **Gross margin up:** selling prices raised; cost of goods fell (cheaper supplier, bigger trade discounts); more high-margin goods sold. **Down:** the opposite, or price cuts to win sales.
- **Profit margin down while gross margin is up:** expenses rose faster than revenue (weaker cost control), or other income fell, or finance costs rose.
- **ROCE down:** profit from operations fell, or capital employed rose (new shares or debentures raised to buy assets that have not yet produced profit).
- **Inventory days up:** sales slowed, or more inventory was bought than needed.
- **Receivables days up:** customers are slower to pay (weaker credit control, or customers with cash problems), or longer credit terms were offered to win sales.
- **Payables days up:** the business is short of cash, or it has negotiated longer credit.
- **Non-current asset turnover up with the same revenue:** net book value fell because depreciation exceeded additions. **Down:** new assets were bought, or revenue fell.

9. Suggest ways to improve a ratio, and drawbacks (5 questions)

Use the "Improving the ratios" table. Give actions that **really** move the ratio:

- To improve the **current ratio**, bring money in from outside current assets and liabilities (a long-term loan, new capital, selling a non-current asset) or keep it in (lower drawings or dividends). "Reduce current liabilities" is weak on its own, because paying them uses up current assets.
- To improve the **acid test**, the same, plus turning inventory into cash (sell it off) or buying less inventory on credit.
- **Inventory days:** sell faster (advertising, promotions, lower prices, a better product range) as well as holding less. The drawbacks of holding less: running out of goods and losing customers, losing bulk-buying discounts, more frequent deliveries costing more, and depending on suppliers to deliver on time.

10. Explain why a ratio matters to a business (4 questions)

Say **what the ratio shows**, then **why management cares**, as a point and its development:

- **Acid test:** whether the business can pay its short-term debts without having to sell inventory (1); if it cannot, suppliers may stop supplying, or it may need an expensive overdraft (1).
- **Rate of inventory turnover:** how quickly inventory is sold (1); slow-selling goods tie up cash, cost money to store and may go out of date, and every sale earns gross profit (1).
- **Non-current asset turnover:** how efficiently the non-current assets are used to generate revenue (1); a low figure suggests idle assets that could be sold or used better (1).

Worked examples

The bold codes show where marks are earned, as in Cambridge mark schemes. The number is how many marks.

- **M1** method mark: for a correct method, even if the numbers slip.
- **A1** accuracy mark: for a correct answer; it needs the M mark before it.
- **B1** mark for a correct result on its own, with no method needed.

Example 1

Orla Limited provided the following information for the year ended 30 June 2025.

	\$
Revenue (20% cash sales)	650 000
Finance costs (8% debentures)	7 200
Taxation	8 000
Profit for the year	48 600
Inventory	38 000
Trade receivables	61 000
Cash at bank	4 500
Ordinary share capital	400 000
General reserve	20 000
Retained earnings	62 500
8% debentures (2029)	90 000
Trade payables	42 000
Tax payable	8 000

(a) Calculate the trade receivables turnover (days), showing the formula used. **[3]**

(b) Calculate the return on capital employed to two decimal places, showing the formula used. **[4]**

(c) Calculate the acid test ratio to two decimal places. **[2]**

(a) $\frac{\text{Trade receivables}}{\text{Credit sales}} \times 365$: **B1** for the formula.

Credit sales = $650\,000 \times 80\% = 520\,000$. **B1**

$$\frac{61\,000}{520\,000} \times 365 = 42.82, \text{ so } \mathbf{43 \text{ days}}, \text{ rounded up. } \mathbf{A1}$$

(b) $\frac{\text{Profit from operations}}{\text{Capital employed}} \times 100$: **B1** for the formula.

$$\text{Profit from operations} = 48\,600 + 7\,200 + 8\,000 = 63\,800. \mathbf{B1}$$

$$\text{Capital employed} = 400\,000 + 20\,000 + 62\,500 + 90\,000 = 572\,500. \mathbf{B1}$$

$$\frac{63\,800}{572\,500} \times 100 = 11.14\%. \mathbf{A1}$$

(c) Liquid assets = $61\,000 + 4\,500 = 65\,500$; current liabilities = $42\,000 + 8\,000 = 50\,000$. **M1**

$$\text{Acid test} = \frac{65\,500}{50\,000} = 1.31 : 1, \text{ written as a ratio. } \mathbf{A1} \text{ (The current ratio would be } \frac{103\,500}{50\,000} = 2.07 : 1.)$$

Example 2

Tamsin is a sole trader. For the year ended 31 March 2025 her revenue was \$480 000. She sells all goods at a mark-up of 60%. Her inventory at 1 April 2024 was \$27 000 and her rate of inventory turnover for the year was 10 times.

(a) Calculate the cost of sales. **[2]**

(b) Calculate the closing inventory at 31 March 2025. **[2]**

(c) Calculate the purchases for the year. **[1]**

(d) Calculate the inventory turnover (days). **[2]**

(a) A 60% mark-up means revenue is 160% of cost of sales. **M1**

$$\text{Cost of sales} = 480\,000 \times \frac{100}{160} = 300\,000.$$

A1

(b) Average inventory = $\frac{300\,000}{10} = 30\,000$. **B1**

$$\text{Closing inventory} = 2 \times 30\,000 - 27\,000 = 33\,000. \mathbf{A1}$$

(c) Purchases = $300\,000 + 33\,000 - 27\,000 = 306\,000$. **B1**

(d) $\frac{30\,000}{300\,000} \times 365 = 36.5$ **M1**, so **37 days**, rounded up. **A1** (Check: $365 \div 10 = 36.5$.)

$$\text{Her gross margin is } \frac{180\,000}{480\,000} \times 100 = 37.5\%, \text{ which matches } \frac{60}{160} \times 100.$$

Example 3

Ravi owns a shop. He provides these ratios, with the average for similar shops.

	2025	2024	Similar shops
Gross profit margin	32%	35%	34%
Profit margin	11%	10%	9%
Current ratio	1.30 : 1	1.90 : 1	1.80 : 1
Acid test ratio	0.60 : 1	1.10 : 1	1.00 : 1

(a) Suggest two reasons for the fall in the gross profit margin. **[2]**

(b) Suggest two reasons why the profit margin rose despite the fall in the gross profit margin. **[2]**

(c) Ravi asks his main supplier for \$20 000 of extra goods on 60 days' credit. Advise the supplier whether to agree. Justify your answer by commenting on both liquidity ratios. **[5]**

(d) State two limitations of comparing Ravi's ratios with those of similar shops. **[2]**

(a) Any two, **B1** each:

- Ravi cut his selling prices, for example to win more customers.
- His suppliers raised their prices, or he lost trade discounts.

(b) Any two, **B1** each:

- He controlled his expenses better, for example lower wages or rent in relation to sales.
- He earned more other income, such as rent received or discounts received.

(c) Against giving credit, **B1** each, up to 2:

- The current ratio has worsened from 1.90 : 1 to 1.30 : 1 and is now well below the 1.80 : 1 of similar shops, so Ravi has fewer current assets to meet his short-term debts.
- The acid test has worsened from 1.10 : 1 to 0.60 : 1: he has only 60 cents of liquid assets for each \$1 he owes in the short term, so he could not pay the supplier in 60 days unless he sells inventory first.

For giving credit, **B1** each, up to 2:

- The profit margin has improved to 11%, above similar shops, so the business is profitable and should generate cash over time.
- The extra goods, once sold, turn into cash that could pay the supplier.

Decision, **B1**: the supplier should not agree, or should agree only to a smaller amount or shorter terms, because both liquidity ratios are below the benchmark and still falling, so there is a real risk of late payment.

(d) Any two, **B1** each: other shops may use different accounting policies (inventory valuation, depreciation); their figures may be for a different date or be out of date; the average hides shops of very different sizes; the ratios ignore non-financial factors such as location and customer service.

Common mistakes

- **Using profit for the year in ROCE.** The examiners report this in session after session. The top line is profit from **operations**: add finance costs (and tax) back.
- **Leaving debentures out of capital employed, or putting the overdraft in.** Capital employed is shares + **all** reserves + **non-current** liabilities. The overdraft is a current liability.
- **Using total sales or total purchases in the day ratios.** Receivables days use credit sales, payables days credit purchases. Take out the cash part first.
- **Using closing inventory instead of average inventory** in the inventory ratios, or getting cost of sales wrong. Build cost of sales carefully (opening + purchases – closing) before dividing.
- **Not rounding day ratios up.** 42.3 days is 43 days in the answer. Other ratios need the accuracy asked, usually two decimal places.
- **Writing the current ratio as a plain number.** Write 1.81 : 1, not 1.81.
- **Mixing up margin and mark-up.** Margin is on revenue, mark-up on cost of sales. A 25% mark-up is a 20% margin, not 25%.
- **Not knowing the formula.** Examiners often find candidates who cannot state the non-current asset turnover formula, so the whole part is lost. Only the syllabus formulas earn the formula mark.
- **Saying a ratio "went up" or "decreased".** When comparing, say whether it **improved** or **worsened**, and why it matters.
- **"Reduce current liabilities" to improve the current ratio.** Paying liabilities uses current assets too, so the ratio may barely move. Suggest ways that bring in long-term money or keep cash in the business.
- **Explaining with only one mark's worth.** "The acid test shows whether it can pay short-term debts" is one mark; add why that matters (suppliers, overdraft costs, survival).
- **Repeating the same point** in a comparison or limitations answer. Each mark needs a different idea.

How to get the marks

- **"Calculate ... showing the formula used":** the formula in words earns a mark by itself. Then show every figure you build (credit sales, profit from operations, capital employed, average inventory), since each carries a mark.
- **Accuracy:** percentages and liquidity ratios to two decimal places when asked; day ratios rounded **up** to a whole day; liquidity ratios as " $x : 1$ "; days and times with their unit.
- **Own figure rule:** if you use a wrong figure from an earlier part correctly, the later marks can still be earned. A wrong formula gets no formula mark, but the figure it gives is still credited when you use it later, so always finish the calculation.
- **"State" or "Identify":** a short point, 1 mark each. No development is needed, but each point must be different.
- **"Explain":** a point **and** its development (because ... / so that ...), usually 2 marks per point.
- **"Suggest reasons":** link the reason to the ratio's figures (selling price, cost of goods, expenses, credit control).

- **"Advise", "Discuss", "Do you agree?":** points on **both** sides, then a clear decision with a reason. The decision mark is given only when it is supported.
- **Comparisons:** quote the figures, compare with last year **and** the benchmark if both are given, and say "improved" or "worsened".
- **Paper 1 multiple choice:** work the calculation in full on the question paper; the wrong options are the answers you get from the usual mistakes (profit for the year in ROCE, closing instead of average inventory, total instead of credit sales).

Quick check

1. A business has cost of sales of \$156 000 and a gross profit margin of 35%. Calculate its revenue and its mark-up (to two decimal places).
2. Credit sales for the year were \$438 000 and trade receivables at the year end were \$50 400. Calculate the trade receivables turnover in days.
3. A business has current liabilities of \$18 000. Its current ratio is 2.4 : 1 and its acid test ratio is 1.5 : 1. Calculate the value of its inventory.
4. A business has current assets of \$40 000, including inventory of \$10 000, and current liabilities of \$20 000. It has a positive bank balance and pays \$5 000 to trade payables by cheque. Calculate both liquidity ratios after the payment and say whether each has improved or worsened.
5. A company's profit for the year was \$42 000 after finance costs of \$6 000. Its equity was \$360 000, it had 5% debentures of \$120 000 and a bank overdraft of \$15 000. Calculate its return on capital employed to two decimal places.

Answers

1. Cost of sales is $100\% - 35\% = 65\%$ of revenue, so revenue = $156\,000 \times \frac{100}{65} = 240\,000$. Gross profit = $240\,000 - 156\,000 = 84\,000$, so mark-up = $\frac{84\,000}{156\,000} \times 100 = 53.85\%$ (check: $\frac{35}{65} \times 100 = 53.85\%$).
2. $\frac{50\,400}{438\,000} \times 365 = 42$ days (exactly 42, so no rounding is needed).
3. Current assets = $2.4 \times 18\,000 = 43\,200$; liquid assets = $1.5 \times 18\,000 = 27\,000$; inventory = $43\,200 - 27\,000 = 16\,200$.
4. Before: current ratio 2 : 1, acid test $\frac{30\,000}{20\,000} = 1.5 : 1$. After: current assets 35 000, liquid assets 25 000, current liabilities 15 000. Current ratio = 2.33 : 1 and acid test = 1.67 : 1: both have improved, because both ratios were above 1 : 1 before the payment.
5. Profit from operations = $42\,000 + 6\,000 = 48\,000$. Capital employed = $360\,000 + 120\,000 = 480\,000$ (the overdraft is left out). ROCE = $\frac{48\,000}{480\,000} \times 100 = 10.00\%$.

Past questions to try

- **9706/22/M/J/22 Q3**: four ratios with their formulas, including ROCE and non-current asset turnover, then why that turnover matters and why shareholders read the accounts.
- **9706/23/O/N/23 Q2**: receivables and payables days, closing inventory from the rate of turnover, and whether comparing with other businesses is useful.
- **9706/22/F/M/21 Q3**: current ratio, receivables days and ROCE compared with two earlier years, then ways to improve the current ratio.
- **9706/11/M/J/23 Q21**: inventory worked back from the current and acid test ratios.