

Accounting 0452 formulas and definitions

All 244 formulas, facts and definitions to learn, by syllabus topic. Formulas the exam gives you are left out.

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1.1 The purpose of accounting

Book-keeping = the detailed recording of financial transactions, day to day

Accounting = using those records to prepare financial statements, then analysing, interpreting and communicating the information

Profit = income – expenses (a negative answer is a loss)

Book-keeping tasks: books of prime entry, posting to ledgers, balancing accounts, trial balance

Accounting tasks: income statement, statement of financial position, ratios, comparisons, reports and advice

Purposes of measuring profit: return on investment, comparing performance, setting drawings, ability to grow, planning

1.2 The accounting equation

assets = liabilities + owner's equity

owner's equity (capital) = assets – liabilities

liabilities = assets – owner's equity

assets = non-current assets + current assets; liabilities = non-current liabilities + current liabilities

closing capital = opening capital + capital introduced + profit – loss – drawings

Assets: owned by the business or owed **to** it. Liabilities: owed **by** the business to others

2.1 The double entry system of book-keeping

Every debit entry has a credit entry of the same amount; total debits = total credits

Debit: increase in an asset, expense or drawings. Credit: increase in a liability, capital or income

balance c/d = larger side total – smaller side total, written on the smaller side

Customer:

closing balance = opening + credit sales – returns – receipts – discount allowed + dishonoured cheques

Supplier: closing balance = opening + credit purchases – returns – payments – discount received

net price = list price × (1 – trade discount rate); only the net price is recorded

Goods taken for own use: debit drawings, credit purchases, at cost

Order: documents → books of prime entry → ledgers → trial balance → financial statements

2.2 Business documents

line total = quantity × unit price

invoice total = list price – trade discount = list price × (1 – trade discount rate)

Cash discount is **not** deducted on the invoice; it is shown in the terms of payment

amount paid = amount owed × (1 – cash discount rate), only if paid in time

credit note = list price of goods returned × (1 – trade discount rate)

Statement: closing balance = opening + invoices – credit notes – payments – cash discount

Amount in the sales or purchases journal = invoice total (net of trade discount)

2.3 Books of prime entry

net invoice amount = list price × (1 – trade discount rate)

amount paid = amount owed × (1 – cash discount rate), only if paid in time

cash discount = amount owed – amount paid

"Having deducted $r\%$ ": amount owed = amount paid ÷ (1 – $r\%$)

restore the imprest = total spent – money received into petty cash

cash in box + vouchers – receipts = imprest

Opening entry: capital = assets – liabilities

Amount in the sales, purchases and returns journals = net of trade discount (trade discount is never recorded)

3.1 The trial balance

A trial balance is a list of ledger balances on a particular date

Total of debit balances = total of credit balances (if the double entry is arithmetically correct)

Debit: expenses, assets, drawings, sales returns. Credit: liabilities, income, capital, purchases returns, provisions

Balance in the wrong column: difference between the totals = $2 \times$ the amount

Balance omitted: its own column is short by the amount

Opening inventory = closing inventory ÷ (1 + $r\%$) when inventory has risen by $r\%$ during the year

Suspense entry = the difference, on the side with the **smaller** total

Not revealed: commission, compensating, complete reversal, omission, original entry, principle

3.2 Correction of errors

Correcting entry = what should have been done – what was done, account by account

Amount on the wrong side of an account (including a complete reversal): correct with $2 \times$ the amount

Wrong amount on one or both sides: correct with the **difference** only

Suspense entry needed only if the original error made total debits $\neq$ total credits

Opening suspense balance: debit if the credit total of the trial balance was bigger; credit if the debit total was bigger

Corrected profit = draft profit + understatements – overstatements

Closing capital = opening capital + profit + capital introduced – drawings

Errors in statement of financial position accounts only (bank, receivables, payables, capital, drawings, non-current assets) do not change profit

3.3 Bank reconciliation

Updated cash book balance = cash book balance + receipts not yet recorded – payments not yet recorded $\pm$ cash book errors

Bank statement balance + uncredited deposits – unpresented cheques + bank error taken out – bank error put in = updated cash book balance

Updated cash book balance + unpresented cheques – uncredited deposits – bank error taken out + bank error put in = bank statement balance

Money in the bank: debit in the cash book, credit on the bank statement; overdraft: the reverse

Items on the statement only → cash book; items in the cash book only → reconciliation statement

Dishonoured cheque: debit the customer, credit bank

The bank figure in the statement of financial position = the updated cash book balance

3.4 Control accounts

Sales ledger control closing debit balance = opening debit – opening credit + credit sales + dishonoured cheques + refunds paid + interest charged – sales returns – receipts – discount allowed – irrecoverable debts – contra + closing credit

Purchases ledger control closing credit balance = opening credit – opening debit + credit purchases + interest charged by suppliers + refunds received – purchases returns – payments – discount received – contra + closing debit

Missing figure = the amount that makes the two sides of the account equal

Contra: debit purchases ledger control, credit sales ledger control, with the **smaller** balance

Sales ledger control: usual balance debit; purchases ledger control: usual balance credit

Sources: journals for sales, purchases and returns; cash book for money, discounts, dishonoured cheques and refunds; general journal for irrecoverable debts, interest and contras

4.1 Capital and revenue expenditure and receipts

Cost of a non-current asset = price + delivery + installation + legal fees + any other cost of getting it ready for use

Capital expenditure → asset account (statement of financial position); revenue expenditure → expense account (income statement)

Revenue receipts → income statement; capital receipts → capital, liabilities or the disposal account

Revenue expenditure treated as capital: profit overstated, non-current assets overstated

Capital expenditure treated as revenue: profit understated, non-current assets understated

Capital receipt treated as revenue: profit overstated; revenue receipt treated as capital: profit understated

Effect on profit (and on net book value) of a wrong classification with a full year's depreciation = amount – (rate × amount)

Corrected profit = draft profit + each understatement – each overstatement

4.2 Depreciation and disposal of non-current assets

Straight-line: annual depreciation = $\frac{\text{cost} - \text{residual value}}{\text{useful life}}$, or rate × (cost – residual value), with residual value 0 if none is given

Reducing balance: depreciation = rate × net book value at the start of the year (ignore any residual value or life given)

Net book value after n full years of reducing balance = $\text{cost} \times (1 - \text{rate})^n$

Revaluation: depreciation = opening value + purchases – closing value

Net book value = cost – accumulated depreciation

Time-apportioned charge = annual charge × $\frac{\text{months owned}}{12}$

Straight-line on a group of assets (full year in purchase, none in disposal): rate × (opening cost + additions – cost of assets sold)

Profit or loss on disposal = proceeds – net book value (positive: profit; negative: loss)

Closing provision = opening provision + charge for the year – depreciation on assets sold

Yearly charge: Dr income statement, Cr provision for depreciation

Disposal: Dr disposal, Cr asset (cost); Dr provision, Cr disposal (depreciation); Dr bank, Cr disposal (proceeds)

Loss on disposal: Dr income statement, Cr disposal; profit on disposal: Dr disposal, Cr income statement

4.3 Other payables and other receivables

Expense for the year = paid + closing accrued – opening accrued + opening prepaid – closing prepaid

Income for the year = received + closing accrued income – opening accrued income + opening prepaid income – closing prepaid income

Part of a payment for this year = payment $\times \frac{\text{months falling in this year}}{\text{months the payment covers}}$

Cash paid (or received) = amount for the year + closing prepaid – opening prepaid – closing accrued + opening accrued

Expense account: debit balance = prepaid expense (asset); credit balance = accrued expense (liability)

Income account: debit balance = accrued income (asset); credit balance = income received in advance (liability)

Transfers: expense, Dr income statement, Cr expense account; income, Dr income account, Cr income statement

Prepaid expenses and accrued income: current assets (other receivables); accrued expenses and prepaid income: current liabilities (other payables)

4.4 Irrecoverable debts and provision for doubtful debts

Write off an irrecoverable debt: Dr Irrecoverable debts, Cr the customer (or Trade receivables)

Year end: Dr Income statement, Cr Irrecoverable debts (with the year's total)

Debt written off is recovered: Dr Bank (or Cash), Cr Debts recovered; year end Dr Debts recovered, Cr Income statement

New provision = (trade receivables – irrecoverable debts still to be written off) $\times$ rate

Change in provision = new provision – old provision (positive: increase, negative: decrease)

Increase: Dr Income statement, Cr Provision for doubtful debts (an expense)

Decrease: Dr Provision for doubtful debts, Cr Income statement (income, added to gross profit)

Net trade receivables = trade receivables – provision for doubtful debts (under current assets)

Change in profit = – irrecoverable debts – increase in provision (or + decrease) + debts recovered

Principles: prudence (don't overstate profit or assets) and matching (the loss belongs to the year of the sale)

4.5 Valuation of inventory

Inventory is valued at the **lower of cost and net realisable value**, item by item

Cost = purchase price (after trade discount) + carriage inwards

NRV = expected selling price – costs to repair, clean or finish – selling costs

Value of an item = number of units $\times$ lower of cost per unit and NRV per unit

Cost of sales = opening inventory + purchases + carriage inwards – closing inventory

Closing inventory overstated $\Rightarrow$ gross profit, profit for the year, current assets and capital overstated by the same amount; next year's profit understated

Closing inventory understated (or goods omitted) $\Rightarrow$ all of those understated; next year's profit overstated

Principle behind the rule: **prudence** (don't overstate profit or assets); using it every year: **consistency**

5.1 Sole traders

Net revenue = revenue – sales returns

Cost of sales = opening inventory + purchases – purchases returns – goods for own use + carriage inwards – closing inventory

Gross profit = net revenue – cost of sales (trading businesses only)

Profit for the year = gross profit + other income – expenses

Service business: profit for the year = fees + other income – expenses

Assets = capital + liabilities

Closing capital = opening capital + capital introduced + profit – drawings

Net book value = cost – accumulated depreciation

Straight line: $(\text{cost} - \text{residual value}) \div \text{years}$, or % of cost

Reducing balance: $\% \times \text{net book value at the start of the year}$

Revaluation: opening valuation + purchases – closing valuation

Expense for the year = amount paid + amount owing at the end – amount prepaid at the end

Time-apportion: $(\text{payment} \div \text{months covered}) \times \text{months in the year}$

Working capital = current assets – current liabilities

Current: within 12 months of the SFP date; non-current: more than 12 months

5.2 Partnerships

Interest on capital = capital $\times$ rate

Interest on drawings (no dates) = total drawings $\times$ rate

Interest on drawings (dated, "per annum") = drawing $\times$ rate $\times \frac{\text{months to year end}}{12}$

Interest on a partner's loan = loan $\times$ rate (an expense in the income statement)

Residual profit = profit for the year + interest on drawings – interest on capital – salaries

Partner's share = residual profit $\times$ their part of the ratio (ratio 2 : 1 gives $\frac{2}{3}$ and $\frac{1}{3}$)

Closing current account = opening balance + interest on capital + salary + share of profit + unpaid loan interest – drawings – interest on drawings

Total credited to a current account = interest on capital + salary + share of profit (interest on drawings is a debit)

Order: income statement → appropriation account → current accounts → statement of financial position

5.3 Limited companies

Equity = share capital + general reserve + retained earnings = assets – liabilities

Capital employed = equity + non-current liabilities = total assets – current liabilities

Share capital = number of shares × nominal value per share

Called-up capital = issued capital × proportion called

Paid-up capital = shares paid for × amount called per share

Closing retained earnings = opening + profit for the year – dividends paid – transfer to general reserve

Closing general reserve = opening + transfer

Closing total equity = opening + profit – dividends paid + shares issued (transfers don't change it)

Dividend = rate per share × number of shares, or percentage × issued ordinary share capital

Debenture interest = debentures × rate (a full year's, whether paid or not)

Profit for the year = profit from operations – debenture (and loan) interest

Order: income statement → statement of changes in equity → statement of financial position

5.4 Clubs and societies

Closing cash and bank = opening balance + receipts – payments (receipts and payments account)

Surplus = income – expenditure; a deficit when expenditure is larger

Subscriptions for the year = received – opening arrears + opening in advance + closing arrears – closing in advance

Subscriptions for the year = number of members × annual subscription (when every member owes one year's)

Accumulated fund = assets – liabilities

Closing accumulated fund = opening accumulated fund + surplus (or – deficit)

Purchases = payments to suppliers – opening trade payables + closing trade payables

Cost of sales = opening inventory + purchases – closing inventory

Profit on an activity = its revenue – its cost of sales – its own expenses

Revenue = cost of sales $\times \frac{100 + \text{mark-up } \%}{100}$

Expense for the year = paid + opening prepaid – opening owing + closing owing – closing prepaid

Subscriptions in arrears: current asset. Subscriptions in advance: current liability

5.5 Manufacturing accounts

Cost of materials consumed = opening raw materials + purchases – returns + carriage inwards – closing raw materials

Prime cost = direct materials + direct labour + direct expenses

Total factory cost = prime cost + factory overheads

Cost of production = prime cost + factory overheads + opening WIP – closing WIP

Cost of sales = opening finished goods + cost of production + purchases of finished goods (and carriage on them) – closing finished goods

Gross profit = revenue – cost of sales

Cost of one unit = cost of production ÷ units completed

Revenue = cost of sales $\times \frac{100 + \text{mark-up } \%}{100}$

Gross margin = $\frac{\text{gross profit}}{\text{revenue}} \times 100$

Shared expense: adjust for owing and prepaid first, then split factory : office

Reducing balance depreciation = (cost – provision for depreciation) $\times$ rate

5.6 Incomplete records

Capital = assets – liabilities (the statement of affairs)

Capital = non-current assets + working capital – non-current liabilities

Opening capital + capital introduced + profit – drawings = closing capital

Profit = closing capital – opening capital + drawings – capital introduced

Credit sales = receipts from customers + discount allowed + sales returns + irrecoverable debts + closing receivables – opening receivables

Credit purchases = payments to suppliers + discount received + purchases returns + closing payables – opening payables

Revenue = credit sales + cash sales; purchases = credit purchases + cash purchases – goods taken by the owner

Expense for the year = paid + opening prepaid – opening owing + closing owing – closing prepaid

Cost of sales = opening inventory + purchases – closing inventory

Mark-up = $\frac{\text{gross profit}}{\text{cost of sales}} \times 100$

Gross margin = $\frac{\text{gross profit}}{\text{revenue}} \times 100$

Margin from mark-up: $\frac{\text{mark-up}}{100 + \text{mark-up}}$; mark-up from margin: $\frac{\text{margin}}{100 - \text{margin}}$

$$\text{Rate of inventory turnover} = \frac{\text{cost of sales}}{\text{average inventory}} \text{ (times)}$$

$$\text{Trade receivables turnover} = \frac{\text{trade receivables}}{\text{credit sales}} \times 365 \text{ (days)}$$

$$\text{Trade payables turnover} = \frac{\text{trade payables}}{\text{credit purchases}} \times 365 \text{ (days)}$$

6.1 Calculation and understanding of accounting ratios

$$\text{Gross margin} = \frac{\text{gross profit}}{\text{revenue}} \times 100 \text{ (\%)} \quad \text{---}$$

$$\text{Mark-up} = \frac{\text{gross profit}}{\text{cost of sales}} \times 100 \text{ (\%)} \quad \text{---}$$

$$\text{Profit margin} = \frac{\text{profit for the year}}{\text{revenue}} \times 100 \text{ (\%)} \quad \text{---}$$

$$\text{ROCE} = \frac{\text{profit before interest}}{\text{capital employed}} \times 100 \text{ (\%)} \quad \text{---}$$

$$\text{Capital employed} = \text{owner's capital (or share capital + reserves)} + \text{non-current liabilities} = \text{non-current assets} + \text{current assets} - \text{current liabilities} \quad \text{---}$$

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}} \text{ (answer } x : 1 \text{)} \quad \text{---}$$

$$\text{Liquid (acid test) ratio} = \frac{\text{current assets} - \text{inventory}}{\text{current liabilities}} \text{ (answer } x : 1 \text{)} \quad \text{---}$$

$$\text{Rate of inventory turnover} = \frac{\text{cost of sales}}{\text{average inventory}} \text{ (times)} \quad \text{---}$$

$$\text{Average inventory} = \frac{\text{opening} + \text{closing inventory}}{2} \quad \text{---}$$

$$\text{Trade receivables turnover} = \frac{\text{trade receivables}}{\text{credit sales}} \times 365 \text{ (days)} \quad \text{---}$$

$$\text{Trade payables turnover} = \frac{\text{trade payables}}{\text{credit purchases}} \times 365 \text{ (days)} \quad \text{---}$$

$$\text{Cost of sales} = \text{opening inventory} + \text{purchases} - \text{closing inventory} \quad \text{---}$$

6.2 Interpretation of accounting ratios

$$\text{Gross margin} - \text{profit margin} = (\text{expenses} - \text{other income}) \text{ as a \% of revenue} \quad \text{---}$$

$$\text{Cost of sales} = \text{rate of inventory turnover} \times \text{average inventory} \quad \text{---}$$

$$\text{Gross profit} = \text{revenue} - \text{cost of sales} = \text{cost of sales} \times \text{mark-up} \quad \text{---}$$

$$\text{Closing inventory overvalued by \$x: this year's gross profit, profit and capital are \$x too high; next year's profit is \$x too low} \quad \text{---}$$

$$\text{Closing capital} = \text{opening capital} + \text{capital introduced} + \text{profit for the year} - \text{drawings} \quad \text{---}$$

$$\text{Working capital} = \text{current assets} - \text{current liabilities} \quad \text{---}$$

$$\text{Better when **higher**: gross margin, profit margin, ROCE, rate of inventory turnover} \quad \text{---}$$

Better when **shorter**: trade receivables turnover (compare with the credit terms allowed)

Current and liquid ratios: better when adequate (roughly 2 : 1 and 1 : 1); too low means cash problems, too high means idle money

6.3 Inter-firm comparison

Expenses (less other income) as a % of revenue = gross margin – profit margin

$$\text{ROCE} = \frac{\text{profit before interest}}{\text{capital employed}} \times 100$$
, where capital employed = owner's capital + non-current liabilities

Inventory = (current ratio – liquid ratio) × current liabilities

Better when **higher**: gross margin, profit margin, ROCE, rate of inventory turnover

Better when **fewer days**: trade receivables turnover (compare each business with its own credit terms)

Ratios compare businesses of different sizes; amounts in dollars don't

Main problems: different policies, year-ends, a non-typical year, different kinds of business or ways of working, items not recorded in money, poor information

6.4 Interested parties

Internal users: owners (sole trader, partners) and managers (directors)

External users: banks, trade payables, investors, government and tax authorities, employees and trade unions, customers, possible buyers or partners

Owner: performance and progress, profit compared with what he could earn elsewhere, decisions for the future

Bank: ability to pay interest and repay the loan or overdraft; non-current assets as security

Trade payables: ability to pay what is owed on time; whether to give credit

Investors: price of shares, expected future profits, expected dividends

Government and tax authorities: tax due; national statistics

Employees and trade unions: job security; whether a pay rise is affordable

Club members: surplus or deficit; use of funds; need to change the subscription

6.5 Limitations of accounting statements

Historic cost: assets are shown at their original cost (less depreciation), not their current value, so the statement of financial position doesn't show what the business is worth

Statements are historic in time: they report a past year and are prepared some time after its end

Difficulties of definition: profit and asset values depend on methods and estimates (depreciation, inventory valuation, doubtful debts)

Non-financial aspects: workforce skills, reputation, location, competitors and government decisions affect results but aren't recorded

Not limitations of comparison: different selling prices, different suppliers, different layout of ledger accounts

7.1 Accounting principles

Business entity: the business is separate from its owner; record from the business's point of view

Consistency: use the same methods from one year to the next, so years can be compared

Duality: every transaction has two aspects, a debit and a credit of the same amount

Going concern: the business will continue for the foreseeable future, so assets are at book value

Historic cost: assets and expenses are recorded at their actual cost

Materiality: low-value items are treated as expenses; the cost of recording would outweigh the benefit

Matching (accruals): costs are set against the revenue of the same period

Money measurement: only items with a money value are recorded

Prudence: profits and assets are not overstated; losses and liabilities are not understated

Realisation: revenue is earned when legal title passes to the buyer

Expense for the year = amount paid + amount owing at the end – amount prepaid at the end (with no opening balances)

Inventory is valued at the lower of cost and net realisable value

7.2 Accounting policies

Accounting policies: the methods a business chooses to apply accounting principles (such as its depreciation method and inventory valuation)

International accounting standards: narrow the differences between countries, help comparisons between businesses, make information more reliable; they do not make accounts quicker to prepare

Relevance: helps users make decisions (predict the future, confirm or correct past expectations) and is available in time

Reliability: free from significant errors and bias, and can be independently checked

Comparability: users can see similarities and differences with other years and other businesses; policies and any changes to them are disclosed

Understandability: clearly presented; assumes users have a reasonable knowledge of accounting
