Chapter 1
Financial accounting

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Chapter overview

To understand the financial health of a business, one needs to understand the language of business, and that language is accounting. The more eloquent you are in accounting, the better you will be able to understand business health. Keeping this overall purpose in mind, this chapter introduces the basic terms, principles and rules of accounting that constitute the grammar of accounting.

Key concepts

- Accounting information is generated based on four basic assumptions: economic entity assumption, time period assumption, monetary unit assumption and going concern assumption.
- The **income statement** (more correctly called the statement of comprehensive income, and sometimes referred to as the profit and loss statement) is of paramount importance because it depicts the performance of a business over a period of time. (Students should be aware that the nouns we use in accounting vary between countries, textbooks and, as we will see, financial reports of Australian companies. Students need to get used to different terms being used for the same items.)
- A **balance sheet** (sometimes called the statement of financial position) is a snapshot of a business, as it shows the financial position at a particular point in time. (The 'equity' section is sometimes called 'shareholders equity', and the amount contributed by the owners 'contributed capital' or 'ordinary shares'. The latter is sometimes even referred to as 'common stock'.)
- The **statement of changes in equity** is the nexus between income statement and the balance sheet. (We are concerned with the statement of retained earnings part.)
- The **cash flow statement** is critical because it answers where the cash is generated from and how it has been utilised during a particular period of time.
- Mere quantity of accounting information is of no use, since it is the quality that adds efficacy to it.
- The **conceptual framework of accounting** is the collection of concepts that guides the manner in which accounting is practised.

Learning objectives

LO1: Examine the four assumptions made when communicating accounting information.

LO2: Describe the purpose and structure of an income statement and the terms and principles used to create it.

LO3: Describe the purpose and structure of a balance sheet and the terms and principles used to create it.

LO4: Describe the purpose and structure of a statement of changes in equity and how it links the income statement and the balance sheet.
LO5: Describe the purpose and structure of a cash flow statement and the terms and principles used to create it.
LO6: Question the qualitative characteristics that make accounting information useful.
LO7: Study the conceptual framework of accounting.

Lecture outline

LO1: Basic accounting assumptions

- **Economic entity assumption:** The financial activities of the business need to be separated from the financial activities of its owner.
  - Example: Contributions made by the owner into the business are treated as his or her capital, which is nothing but an internal liability for the business.
- **Time period assumption:** Accounting information can be communicated effectively over short periods of time.
  - Example: Most companies report their financial performance and position on a quarterly, half-yearly and annual basis.
- **Monetary unit assumption:** The dollar, unadjusted for inflation, is the best means of communicating accounting information in Australia.
  - Example: The quality of service, the morale of employees and the health of the owner cannot be quantified in terms of money.
- **Going concern assumption:** A company will continue to operate into the foreseeable future.
  - Example: All fixed assets are shown at their cost (net of accumulated depreciation), but not at their liquidation values.

Key concept

Accounting information is generated based on four basic assumptions:

1. economic entity assumption
2. time period assumption
3. monetary unit assumption
4. going concern assumption.

Teaching tip

Ask students to analyse the financial statements of a company and identify the implications of the four basic assumptions.

LO2: Reporting profitability: the income statement

- **Revenue** is an increase in resources resulting from the sale of goods or the provision of services; for example, sales revenues or investment incomes.
  - **Revenue recognition principle:** Revenues are recognised when they are earned.
- **Expense** is a decrease in resources resulting from the sale of goods or the provision of services; for example, the cost of goods sold or interest expense.
  - **Matching principle:** Profit for a particular period is a function of the revenues and expenses of that period. Thus, profit for a particular period is found out by matching the expenses against the revenues of the same period.
- An **income statement** is a financial statement that shows a company's revenues and expenses over a specific period of time. (The 'comprehensive' part of the statement is beyond what we consider in the earlier chapters of the text.)

Key concept

The income statement is of paramount importance as it depicts the performance of a business over a period of time.

Key formula

Revenues – Expenses = Net Profit or Net Loss (Net Income or Income)

Teaching tip

- A magazine publisher sells two-year subscriptions. Ask students whether the publisher will treat this as revenue on the date of the transaction. Why or why not?
- A shipbuilding company uses 500 tonnes of steel in the month of January to build a ship that will be delivered 30 months from now. Ask students to explain the treatment of January's expenses using the matching principle.

LO3: Reporting financial position: the balance sheet

- The **balance sheet** is a snapshot of a business, giving a clear picture of what the business owns and owes at a particular point in time.
- **Assets** are an economic resource that are objectively measurable, that result from a past transaction and that will result in future economic benefits. Examples include merchandise inventory and equipment.
  - **Historical cost principle:** Assets are recorded in the books at the cost of their acquisition.
- **Liabilities** are an obligation of a business that result from past transactions and will require sacrifice of economic resources at a future date. Examples include accounts payable and salary payable.
- **Equity** is the difference between the company's assets and liabilities, and represents the share of assets that is claimed by the owners. This relationship among assets, liabilities and equity is reflected in the fundamental accounting equation:
  - **Contributed capital** represents the resources that investors invest in exchange for ownership interest.
  - **Dividends** (or drawings for a sole trader) are profits distributed to the owners.
  - **Retained earnings** are profits retained in the business.

Key equation

Assets = Liabilities + Equity

Key concept

The balance sheet is a snapshot of a business; it shows the financial position of the business at a particular point in time.

Teaching tip

Ask students to categorise the following into asset, liability, revenue and expense:

- Advance received from customers
- Services rendered but fees not yet received
- Insurance premium for next quarter paid in this quarter
- Leased machine (you may prefer to leave this one to later).

LO4: Reporting equity: the statement of retained earnings

The statement of retained earnings shows the change in a company's retained earnings over a specific period of time. The basic structure of the statement is as follows:

Opening balance of retained earnings		xxxx
Add/Less: net profits / (Loss) [income]	xxx	
Less: dividend (drawings)		xx
Closing balance of retained earnings	xxxx	

Key concept

The statement of retained earnings is the nexus between income statement and balance sheet.

Teaching tip

- Ask students to figure out the impact of the following situations on closing retained earnings balance:

a. Company incurred net loss during the year.

b. Company pays dividend, dividend payout being the same as last year.

- Will the closing balance in the retained earnings account always be less than the beginning balance? Ask students to substantiate their answer using two scenarios.

LO5: Reporting cash flows: the statement of cash flows

- The statement of cash flows reports a company's inflows and outflows of cash from its operating, investing and financing activities over a period of time.

– **Operating cash flows** involve cash flows arising out of central activities of a business. Examples include receipts from customers and payments to suppliers, employees, etc. They are the cash flows associated with revenues and expenses.

– **Cash flows from investing activities** involve cash flows arising mainly out of the purchase and sale of fixed assets. Examples include the purchase and sale of land, buildings, machinery, etc.

- **Cash flows from financing activities** involve cash flows arising out of sourcing and repaying cash. Examples include raising a loan from a bank and repaying the same.
- The basic structure of a cash flow statement is as follows:

Cash flows provided/used by operating activities	xxxx
Add/Less: Cash flows provided/used by investing activities	xxxx
Add/Less: Cash flows provided/used by financing activities	xxxx
Net increase/decrease in cash	xxxx

Key concept

An important issue for any business is its management of cash. Where does a company get its cash? Where does its cash go? Will there be enough cash to pay the bills?

Teaching tip

Ask students to classify the following items as financing, operating, and investing activities as they appear on the statement of cash flows:

- legal fees received by a law firm
- the cost of setting up interiors in an office building
- the issue of bonds (debentures) for cash or simply obtaining a loan.

LO6: Qualitative characteristics of accounting information

- **Understandability** refers to the ability of accounting information to be comprehensible to users who are willing to study the information with reasonable diligence.
- **Relevance** refers to the capacity of accounting information to make a difference in decisions. This capacity comes from:
  - feedback value (the ability to assess past performance)
  - predictive value (the ability to predict future performance)
  - timely availability of information.
- **Reliability** refers to the extent to which accounting information can be depended upon to represent what it purports to represent. For information to be reliable, it

needs to be:
- verifiable
- representative of truthfulness
- neutral.

- **Comparability** refers to the ability of accounting information to be used for inter-firm comparisons. However, comparability does not mean uniformity.
  - Example: Company A and Company B belong to the same industry and both follow the same accounting methods. Their operating results could be compared to determine which company is doing better.
- **Consistency** refers to the ability of accounting information to be used for intra-firm comparisons over time. To be consistent, companies need to use the same accounting methods year after year.
  - Example: A company that uses the straight-line method of depreciation should continue to do the same, year after year, unless a change is warranted.
- **Materiality** refers to the threshold at which financial items begin to affect decision-making. However, the threshold varies across entities and settings. The materiality threshold is not always solely a function of dollar amounts. It also depends on the nature of the item.
  - Example**:** The cost of a stapler can be expensed (even though it is a long–term asset) because the amount is immaterial and will not affect anyone's decision-making. On the other hand, the discovery of even a small bribe or theft can be very important and material.
- **Conservatism** refers to the manner in which accountants deal with uncertainty regarding economic situations. The essence of conservatism is to account for all probable losses, but never account for probable gains.
  - Example: The valuation of closing inventory at cost price or market price – whichever is lower.

Key concept

A mere quantity of accounting information is of no use, since it is the quality that adds efficacy to the information.

Teaching tip

Take up the following questions for classroom discussion:

- How logical would a comparison between two companies be if each were following a different set of accounting methods?

- How relevant would an old annual report be for a shareholder contemplating a revision of his or her portfolio?

LO7: The conceptual framework

The conceptual framework of accounting refers to the collection of concepts that guide the manner in which accounting is practised.

Key concept

The conceptual framework of accounting is the collection of concepts that guide the manner in which accounting is practised.

Teaching tip

Think of an accounting environment devoid of any conceptual framework to fall back upon. Ask students to identify the problems that accountants might face while working in such an environment.

Solutions for end-of-chapter material

End-of-chapter numerical problems have been provided to illustrate the concepts explained in the chapter. The end-of-chapter exercises will facilitate better understanding of the conceptual framework of basic financial accounting. Theoretical and numerical exercises based on the chapter learning objectives are provided for practice and clarity.

Exercises

Exercise 1. Calculate profit or loss

4 000 – 1 500 – 200 – 50 = 2 250

Teaching tip

Profit is the most import aspect of a business. In simple terms, i is revenue minus expenses; but it becomes more complex when we have to determine what are the revenues and expenses. The first complexity is cash versus accrual accounting. From the outset, we recognise revenues when they are earned and expenses when they are incurred, even though the corresponding cash flow may occur before or after the fact. Sometimes it happens simultaneously, but it does not have to.

Helpful hint for students

The **income statement** is '**R**eally **E**asy', since it reports the company's **R**evenues less **E**xpenses. Revenues are earnings from doing business (not contributions from the owners or borrowings). Expenses are costs of doing business (not repayments to people you borrowed from or dividends (drawings) paid to owners).

Exercise 2. Calculate equity

$4 000

Teaching tip

It is the basic accounting equation:

A	=	L	+	E
10 000		6 000		**4 000**

Helpful hint for students

The things you 'own' (assets) have come from money borrowed (liabilities) and the money you have put in, or contributed (the equity).

Or, to think of it another way: you are worth the difference between what you own less what you owe.

A	–	L	=	E
10 000		6 000		**4 000**

Exercise 3. Identify accounting principles

1. Cost principle. We record items at cost. This saves the subjective opinion of what they are 'worth'. It may also include conservatism in not anticipating profits.

2. Matching principle or time period concept. We record revenue when earned and match it to the period in which it was earned – I would not be too concerned about having a single correct answer but it is useful to see how these concepts work together.

3. Matching principle/time period concept. As above, this applies for both revenues and expenses.

Exercise 4. Calculation of retained earnings

$175 000 + 110 000 – 10 000 = 275 000

Teaching tip

Opening balance of retained earnings + Profits – Dividends = Closing retained earnings
Retained earnings are earnings (profits) that have been retained (kept in the business).
Dividends are profits that have been distributed (not retained).

Helpful hints for students

The purpose of accounting is to identify, measure and communicate economic information about a particular entity to interested users. To accomplish this, accountants make the following four assumptions:

a. economic entity

b. time period

c. monetary unit

d. going concern.

Think about how each assumption affects accounting:

- Why the monetary unit assumption? If an economic activity cannot be expressed in dollars, then it is not recorded in the accounting system.
- Why the economic entity assumption? It allows a user to examine a company's accounting information without concern that the information includes the personal affairs of the owner(s).
- Why the time period assumption? Business owners and other interested parties usually do not want to wait long before they receive information on how a business is doing.
- Why the going concern assumption? Unless there is evidence to the contrary, most companies are assumed to be going concerns. Those that are not going concerns are often in the process of liquidation.

Exercise 5. Calculate cash flow

Beginning balance	175 000
Cash flows from operating	680 000
Less: cash flows to investing	(516 000)
Less: cash flows to financing	(98 000)

Net change in cash—increase $241 000

Teaching tip

Cash flows from operations and profits are different, and at this stage, it may be difficult for students to understand why. The simplest example may be to explain that, while revenue earned by them today may be their wages from the job they work, they don't get the money until pay day – so revenue and cash inflow from operations are different.

Helpful hint for students

Cash flows are divided into three areas. **operations** (which usually produce cash – but cash flows from operations are not profit), **financing** (where we get our money from – but it may result in a cash outflow because of loan repayments or payments like dividends to owners) and **investing** (buying long-term assets).

Exercise 6. Assumptions and qualitative characteristics

1. Going concern. (Assume a company will continue to operate into the foreseeable future.)
2. Relevance. (The information is likely to influence or change a decision.)
3. Consistency. (Allows current results to be compared with past results. A good analogy is world-record runners having to record their times with minimum wind assistance, since if the wind is blowing too strongly, they will not be consistent with past attempts and records.)
4. Materiality. (Linked to relevance – if the amount is so small that it will not influence a decision, then it may be ignored.)

Teaching tip

Accounting information must possess certain qualitative characteristics to be considered useful. Do not get consistency and comparability confused. Consistency applies to the same company; comparability applies to different companies.

With materiality, we must always be careful of a number of small amounts being ignored (and adding up to a larger amount that is relevant). One of the great 'urban myth' frauds is about the employee who took a fraction of every cent paid on interest on accounts. This was supposed to work because when there are millions of accounts paying interest each day, you only need .25 of a cent from 10 million accounts to give $25,000 a day – material for most of us.

Helpful hints for students

Consider how each characteristic impacts accounting.

- **Going concern** does not mean the company will continue forever (or even to the end of the next year, if major unexpected events – a global financial crisis or a natural disaster – happens that removes the basis of the business). It is the basis of preparing the financial statements. Take a pair of your shoes – what could they sell for compared what they are worth to you (as a going concern)?
- **Relevance**: Information should have predictive or feedback value, and should be timely.
- **Materiality**: When an amount is small enough, normal accounting procedures are not always followed.
- **Conservatism**: An entity should choose accounting techniques that guard against overstating revenues or assets.
- **Comparability**: Entities must disclose the accounting methods that they use so that comparisons across companies can be made.

Exercise 7. Accounting terms

Item:	**Appears on:**	**Classified as:**
1 Salaries expense	Income statement	Expense
2 Equipment	Balance sheet	Asset
3 Cash	Balance sheet	Asset
4 Accounts payable	Balance sheet	Liability
5 Buildings	Balance sheet	Asset
6 Contributed capital	Balance sheet	Equity
7 Retained earnings	Balance sheet	Equity
8 Interest revenue	Income statement	Revenue
9 Advertising expense	Income statement	Expense

Teaching tip

Remind students that the account 'retained earnings' also appears on the statement of retained earnings. Contributed capital is a part of equity, since it represents resources that investors contribute to a business in exchange for an ownership interest. Revenues are increases and expenses are decreases in resources, resulting from the sale of goods or the provision of services. An asset is a resource of a business; a liability is an obligation of a business; and equity is the difference between a company's assets and liabilities, which represents the remaining share of assets for the owners.

Helpful hint for students

Contributed capital is *not* a revenue account. Revenue accounts normally include the word *revenue, income,* or *earned* in the account name, but can also be a single word such as *sales*. Expenses normally include the word *expense* in the account name, and occasionally can represent several accounts such as *cost of sales*. Liabilities normally include the word *payable.*

Exercise 8. Classify cash flow

Item	Section of cash flow statement	Teaching tip: why?
Cash paid to suppliers	Operating	*Cash paid for operations*
Cash received from new shares	Financing	*Cash generated from owners*
Cash paid for new equipment	Investing	*Cash paid for assets (other than current assets)*
Cash paid for dividend	Financing	*Cash paid to owners who originally finance the business through buying shares*
Cash received from customers	Operating	*Cash generated from operations*

Teaching tip

The statement of cash flows is a financial statement that reports an entity's sources (inflows) and uses of cash (outflows) over a specific period of time. Profits that are distributed to owners are called dividends. Remember that dividends are not an expense of the company, and are therefore not included in cash flow from operations. They are simply a distribution of company assets to owners.

Helpful hint for students

The buying and selling of assets other than current assets, such as land, building, and equipment, are considered to be **investing activities**. Think of this as the company 'investing in itself.'

Exercise 9. Accounting terms

a. Y/S
b. B/S
c. CF
d. B/S
e. SRE
f. CF
g. B/S

Teaching tip

Each financial statement reports specific types of accounts or activity. An income statement is a financial statement that shows a company's revenues and expenses over a specific period of time. A balance sheet reports a company's assets, liabilities and equity. The statement of retained earnings reports the change in a business's retained earnings over a specific period of time, so it reports dividends and net income (or loss). A statement of cash flows reports a company's cash inflows and outflows from its operating, investing and financing activities.

Helpful hint for students

The income statement is '**R**eally **E**asy' since it reports the company's **R**evenues and **E**xpenses. Expenses are costs of doing business. Assets are items of value and worth; liabilities are what a company owes; and equity is what is left over for the owners. The statement of cash flows reports the sources of cash and the payments of cash during a period. Remember that, since cash is in the name of the statement, all transactions must directly relate to the inflow or outflow of cash.

Teaching tip

Remind students that the account 'retained earnings' also appears on the statement of retained earnings. Contributed capital (ordinary shares) is part of equity, since it represents resources that investors contribute to a business in exchange for an ownership interest.

Helpful hint for students

'Sales' is a revenue account. An expense is a cost of doing business; therefore, cost of sales is reported on the income statement.

Exercise 10. Financial statements

- Shareholder: **(CI)** Income statement (income statement). The shareholder would look at the revenues on the income statement to determine how this year's sales figures compared with last year's sales figures.
- Banker: **(FP)** Balance sheet (balance sheet). The banker would look at the liabilities on the balance sheet to find out how much debt the company had on its books.
- Supplier: **(FP)** Balance sheet. The supplier would look at the liabilities on the balance sheet to determine how much the company owed its suppliers in total.
- Shareholder: **(CE/CF)** Statement of retained earnings. The shareholder could find the amount paid for dividends shown as a reduction on the statement of retaining earnings. Also, the shareholder could find this amount on the statement of cash flows under 'Cash flows from financing'.
- Advertising agent: **(CI)** Income statement. The advertising agent could look under the expenses on the income statement to find out how much was used in advertising to generate sales.
- Banker: **(CI/CF)** Income statement. The banker could look under expenses on the income statement to find out what the company's total interest cost was last year. Also, the banker could find this amount on the statement of cash flows under 'Cash flows from operations'.

Teaching tip

Each financial statement reports specific types of accounts or activity. An income statement is a financial statement that shows a company's revenues and expenses over a specific period of time. A balance sheet reports a company's assets, liabilities and equity. The statement of retained earnings reports the change in a business's retained earnings over a specific period of time, so it reports dividends and net income (or loss).

Helpful hint for students

The income statement is '**R**eally **E**asy' since it reports the company's **R**evenues and **E**xpenses. Assets are items of value and worth, liabilities are what a company owes and the equity is what is left over for the owners.

Exercise 11. Profit or loss and retained earnings

Profits = Revenue – Expenses

Profits = $10 000 – $8 000

Profits = $2 000

Retained earnings = Beginning retained earnings + Profits (or minus loss) – Dividends

Retained earnings = $20 000 + $2 000 – $1 000

Retained earnings = $21 000

Hints: Profits increase retained earnings; losses decrease retained earnings; dividends reduce retained earnings (dividends are earnings that are not retained).

Exercise 12. The accounting (balance sheet) equation

a. Beginning of year: ($50 000 Assets = $40 000 Liabilities + ? Equity)
Equity = $10 000
Beginning equity $10 000 + $12 500 profits – $0 div. = $22 500 ending equity.

b. End of year: (? Assets = $50 000 Liabilities + $30 000 Equity)
Assets= $80 000
If Tania Ltd doubled its assets during the year, then it must have started the year with $40 000. ($80 000 ÷ 2 = $40 000)

c. Beginning of year: ($40 000 Assets = ? Liabilities + $20 000 Equity)
Liabilities = $20 000

If liabilities tripled during the year, then Hudson has $60 000 in liabilities at the end of the year. ($20 000 × 3 = $60 000)

Teaching tip

The relationship between assets, liabilities and equity is represented by the accounting equation: *Assets = Liabilities + Equity*. Using your knowledge of the accounting equation, you can solve for the missing amounts by making it a simple mathematical problem.

Helpful hint for students

The accounting equation (Assets = Liabilities + Equity) is like any mathematical equation. It will always be equal (or balance). It can be rewritten in several forms, such as: Assets – Liabilities = Equity, or Assets – Equity = Liabilities.

Exercise 13. Retained earnings

First, calculate ending retained earnings at 31 January, which is equal to beginning retained earnings at 1 February.

1 Jan.	Retained earnings	$245 800
	Add: Profits($80 000 – $85 000)	(5 000)
	Less: Dividends	0
31 Jan.	Retained earnings	$240 800

Chan Company
Statement of retained earnings
For the month ending 28 February

1 Feb.	Retained earnings	$240 800
	Add: Profits*	22 000
	Less: Dividends	(7 000)
28 Feb.	Retained earnings	255 800

*Profits = Revenue – Expenses = $102 000 – $80 000 = $22 000

Teaching tip

The financial statements are interrelated. The income statement is prepared first. Use the profit or loss from the income statement when preparing the statement of change in equity (retained earnings).

Helpful hint for students

The income statement is '**R**eally **E**asy', since it reports the company's **R**evenues and **E**xpenses. Expenses are costs of doing business. A simple way to remember the statement of retained earnings is 'BIDE': **B**eginning retained earnings, plus net **I**ncome (profit or less loss), less **D**ividends equals **E**nding retained earnings.

Exercise 14. Links between financial statements

Tip: work this problem in reverse. Begin with (e).

(e)

Retained earnings, beginning balance	$20 000
+Profits	**(e) 50 000**
–Dividends	10 000
=Retained earnings, ending balance	$60 000

(d) Profits or Loss = $50 000

(c)

Sales	$90 000
–Cost of sales	**(c) 20 000**
–Administrative expenses	(20 000)
=Profits	$50 000

(b) Retained earnings = $60 000 (from statement of retained earnings)

Total liabilities and shareholders' equity	$70 000
– Total liabilities	(7 000)
= Total shareholders' equity	$63 000

(a)

Ordinary shares	**(a)** $3 000
+Retained earnings	60 000
=Total equity	$63 000

Teaching tip

A balance sheet reports a company's assets, liabilities and equity. This relation between assets, liabilities and equity is represented by the accounting equation: Assets = Liabilities + Equity. Notice that the profit from the income statement is the missing amount of profit (or loss) on the statement of retained earnings. Also, the ending balance on the statement of retained earnings is the same amount as the retained earnings reported on the balance sheet.

Helpful hint for students

Work this problem in reverse. Using your knowledge of the accounting equation and the interrelationship among the financial statements, you can work out the missing amounts by making it a simple mathematical problem.

Exercise 15. Qualitative characteristics

1. **Understandability**: The ability to comprehend the financial activities by a person who has a reasonable understanding of business and is willing to study the information with reasonable diligence.
2. **Relevance**: The capacity of accounting information to make a difference in decisions.
3. **Reliability**: The extent to which accounting information can be depended upon.
4. **Consistency**: The ability to compare or contrast the financial activities of the same entity over time.
5. **Materiality**: The threshold at which a financial item begins to affect decision-making.
6. **Conservatism**: The manner in which accountants deal with uncertainty regarding economic situations.

Exercise 16. Assumptions and principles

a. **Cost principle**: Assets should be reported at historical cost.

b. **Time period assumption**: An entity cannot randomly change its time period. This also violates 'consistency.' An entity should use the same accounting methods year to year and disclose when they change methods.

c. **Economic entity assumption**: Personal affairs of owners should be kept separate from business affairs.

d. **Revenue recognition principle**: Revenue should be recorded in the period during which it is earned.

Teaching tip

Principles, assumptions and qualitative characteristics are necessary to communicate the financial activities and position of a business and to help ensure that accounting information is indeed useful. Revenue is earned when the sale of the good or the provision of the service is substantially complete and collection is reasonably assured; it is not dependent on the receipt of cash.

Helpful hint for students

Economic entity assumption: We do not have to worry that the financial information of the owner is mixed with the financial information of the business. Remember that the receipt of cash is not required to record revenue; we focus on when it is earned (i.e., the company has a right to it).

Problem 17. Prepare financial statements

Revenues and expenses are listed in chart of accounts order. The boat and supplies are prorated for one month. The balance for cash must be computed.

Ocean Tours
Income statement
For the month ending 30 June

Service revenue		$6 000
Expenses:		
Boat ($1 200/3)	$400	
Fuel	335	
Interest	5	
Operating permit	25	
Supplies ($240/3)	80	
Total expenses		845
Profit (Income)		$5 155

Ocean Tours
Statement of retained earnings
For the month ending 31 December

Retained earnings, 1 Dec.	$0
Add: Net income	5 155
Less: Dividends	0
Retained earnings, 31 Dec.	$5 155

Ocean Tours
Balance sheet
31 December

Assets

Cash	$ 6 320	
Accounts receivable	21 000	
Buildings	76 000	
Equipment	25 000	
Total assets		$128 320
Liabilities and shareholders' equity		
Accounts payable	$27 000	
Notes payable	70 000	
Total liabilities		$ 97 000
Contributed capital	$30 000	
Retained earnings*	1 320	
Total shareholders' equity		31 320
Total liabilities and shareholders' equity		$128 320

* Calculations:
$600 Contribution + $1 000 loan + $5 775[1] cash collections of revenue – $1 200 boat – $240 supplies – $335 fuel – $5 interest – $25 permit = $5 570 cash on hand at end of month.
1 Revenue equals: 25 × $240 = $6 000; cash collected equals: $6 000 – $225 = $5 775

Teaching tip

The financial statements are interrelated. The income statement is prepared first. Use the net income or net loss from the income statement when preparing the statement of retained earnings. The new ending balance on the statement of retained earnings is the balance reported for retained earnings on the balance sheet. In this problem, the cost of the boat and the supplies is prorated over three months. One-third of the cost of the boat and supplies is 'used' and reported on the income statement as expenses for the month. The remaining 'unused' amount (two-thirds) for the boat and supplies is reported on the balance sheet as an asset.

Helpful hint for students

The income statement is '**R**eally **E**asy', since it reports the company's **R**evenues and **E**xpenses. Expenses are costs of doing business. Assets are items of value and worth; liabilities are what a company owes; and the equity is what is left over for the owners. A simple way to remember the statement of retained earnings is **BIDE**: **B**eginning retained earnings plus net **I**ncome (or less net loss) less **D**ividends equals **E**nding retained earnings. The amount of cash reported on the balance sheet must be computed. Consider all the sources of cash and all payments of cash for the month.

Problem 17. Prepare financial statements

Honky Tonk
Income statement
For the year end

Service revenue		$16 820
Salary Expense	9 500	
Advertising Expense	6 000	
Total expenses		15 500
Profit (Income)		$1 320

Honky Tonk
Statement of retained earnings
For the year ended

Retained earnings, opening balance	$0
Add: Net income	1 320
Less: Dividends	0
Retained earnings, ending balance.	$1 320

Honky Tonk
Balance sheet
As at year end

Assets		
Cash	$ 6 320	
Accounts receivable	21 000	
Buildings	76 000	
Equipment	25 000	
Total assets		$128 320
Liabilities and shareholders' equity		
Accounts payable	$27 000	
Notes payable	70 000	
Total liabilities		$ 97 000
Contributed capital	$30 000	
Retained earnings	1 320	
Total shareholders' equity		31 320
Total liabilities and shareholders' equity		$128 320

Teaching tip

The financial statements are interrelated. The income statement is prepared first. Use the net income or net loss from the income statement when preparing the statement of retained earnings. The new ending balance on the statement of retained earnings is the balance reported for retained earnings on the balance sheet. In this problem the cost of the boat and the supplies is prorated over three months. One-third of the cost of the boat and supplies is 'used' and reported on the income statement as expenses for the month. The remaining 'unused' amount (two-thirds) for the boat and supplies are reported on the balance sheet as assets.

Helpful hint for students

The income statement is '**R**eally **E**asy', since it reports the company's **R**evenues and **E**xpenses. Expenses are costs of doing business. Assets are items of value and worth; liabilities are what a company owes; and the equity is what is left over for the owners. A simple way to remember the statement of retained earnings is **BIDE**: **B**eginning retained earnings plus net **I**ncome (or less net loss) less **D**ividends equals **E**nding retained earnings. The amount of cash reported on the balance sheet must be computed. Consider all the sources of cash and all payments of cash for the month.

Problem 18. Correct income statement errors

Deficiencies:

- 'Income sheet' should read 'Income statement'.
- '30 June' should read 'For the year ended 30 June.'
- 'Income from services' should read 'service revenue'.
- Accounts receivable should not be reported on the income statement; it should be reported on the balance sheet.
- Dividends are not an expense and should be reported on the statement of retained earnings, not the income statement.
- Advertising expense should not be a negative expense, it should be an addition to the total expenses that will be deducted from revenue to reach net income.

Sivabalan Group
Income statement
For the year ended 30 June

Service revenue		$170 000
Less expenses		
Salaries	57 000	
Advertising	14 000	
Electricity	22 000	
Total expenses		93 000
Profits		77 000

Problem 19. Correct balance sheet errors

Deficiencies:

- Items should be classified as assets, liabilities and shareholders' equity, not resources and debts.
- 'Stuff we can sell' should read 'Inventory'.
- Retained earnings should be classified as part of shareholders' equity.
- 'Grand total' should read 'Total assets' and 'Total liabilities and shareholders' equity.'
- 'Money we owe to vendors' should read 'Accounts payable'.

HHH
Balance sheet
For the year ended 31 December

Assets	
Cash	30 000
Inventory	40 000
Land	53 000
Total assets	123 000
Liabilities and shareholders' equity	
Accounts payable	43 000
Contributed capital	63 000
Retained earnings	17 000
Total liabilities and shareholders' equity	123 000

Problem 20. Errors in accounting

- The economic entity assumption, which states that the personal affairs of the owners are assumed to be separate from the business affairs of the entity, has been violated. The corporation should rent the beach house from William and record the expense. The beach house is not an asset of the business, so neither the asset nor the related liability should be reported on the corporation's balance sheet.
- The cost principle, which states that assets should be recorded at historical cost, has been violated. Market value is subjective; therefore, the inventory should be correctly recorded at $12 000.
- The revenue recognition principle has been violated. A receivable and the increase in shareholder's equity cannot be recorded until the service has been provided and the revenue is earned.

Nguyen Company
Balance sheet
For the year ended 31 December

Assets	
Cash	$25 000
Accounts receivable	35 000
Inventory	12 000
Total assets	72 000
Liabilities and shareholders' equity	
Accounts payable	$40 000
Retained earnings	32 000
Total liabilities and shareholders' equity	72 000

Problem 21. Prepare financial statements

Revenues and expenses are listed in chart of accounts order. The boat and supplies are prorated for one month. The balance for cash must be calculated.

The loss result is very similar to cash flow from operations, as there was only one accrual (A/cs Rec of $1080). The financial statements show 'never again'.

Ocean Tours
Income statement
For the month ending 31 July

Service revenue ($90 x 2 400)		$216 000
Expenses:		
Boat	$48 000	
Fuel (135 + 20)	155 000	
Interest	500	
Advertising	25 000	
Total expenses		228 500
LOSS		$12 500

Ocean Tours
Statement of retained earnings
For the month ending 31 December

Retained earnings, 1 July.	$0
Add: Net income	(12 500)
Less: Dividends	0
Retained earnings, 31 Dec.	$12 500)

Ocean Tours
Balance sheet
31 July

Assets		
Cash	$106 420	
Accounts receivable	1 080	
Total assets		$107 500
Liabilities and shareholders' equity		
Borrowings	60 000	
Total liabilities		$ 60 000
Contributed capital	$60 000	
Retained earnings* (from above)	(12 500)	
Total shareholders' equity		47 500
Total liabilities and shareholders' equity		$107 500

Cash is the balancing item – but just to check (in thousands)
60 + 60 + 216 - 1.08 - 48 - 25 - 155 – 0.5 = 106.42 Or $90 x 2388 instead of 216 – 1.08

Teaching tip

The financial statements are interrelated. The income statement is prepared first. Use the net income or net loss from the income statement when preparing the statement of retained earnings. The new ending balance on the statement of retained earnings is the balance reported for retained earnings on the balance sheet. In this problem, the cost of the boat and the supplies is prorated over three months. One-third of the cost of the boat and supplies is 'used' and reported on the income statement as expenses for the month. The remaining 'unused' amount (two-thirds) for the boat and supplies are reported on the balance sheet as assets.

Helpful hint for students

The income statement is '**R**eally **E**asy', since it reports the company's **R**evenues and **E**xpenses. Expenses are costs of doing business. Assets are items of value and worth; liabilities are what a company owes; and the equity is what is left over for the owners. A simple way to remember the statement of retained earnings is **BIDE**: **B**eginning retained earnings plus net **I**ncome (or less net loss) less **D**ividends equals **E**nding retained earnings. The amount of cash reported on the balance sheet must be computed. Consider all the sources of cash and all payments of cash for the month.

Cases

Case 22

The aim of this exercise is to encourage students to find annual reports on the Internet, find the financial statements in the middle of those annual reports, and then look at the financial statements and see that there are four and each of them contains different information. Further, students should start to notice that they show different aspects of financial performance and position: revenue and income in the income statement, assets in the balance sheet and cash flow from operations in the cash flow statement. Depending on the year, the financial statements may be called something slightly different – but this is not a problem, since students should get used to different names and even different formats.

If you require students to go on to Part 'b.' the differences in the statements as well as the size of the numbers can be discussed.

Part 'c.' raises more issues – size could be revenue, profits, total assets or even number of employees. It could be market capitalisation (i.e., the amount of money to buy all the shares in the company at current share prices). This information is available in the business section of most large newspapers. Answers will depend on which year's financial statements are used.

Case 23

Ethical dilemma

Your CEO wants you to ignore the fact that previous and current financial statements are misstated, and therefore mislead investors. She is arguing that, over the total six-year period, total profit will be reported correctly, so the incorrect reporting each year is not important.

Possible responses

Option 1: 'I understand that profits are large enough this year to absorb the previous losses and still be profitable, but the information we will be reporting is not correct. It is therefore not reliable. We should report unbiased information to our investors. We should disclose the errors in the previous years and report current year results truthfully.'

Consequence: Although it will be hard to stand up to your boss, this is the right action to take in this situation. By recognising the error in restating prior financial statements, you avoid committing another error by misstating current profits. There may be negative consequences to this action in that you may be criticised for not being 'a team player'.

Option 2: 'I understand. You are the CEO; you have the experience and, ultimately, the authority and responsibility. I will do what I am told.'

Consequence: The current year's profits will be understated and prior years' income will remain overstated. If someone outside the company discovers that the company knew of and ignored the error, there could be more severe consequences than just restating the financial statements. Additionally, if you do as your boss says this time, she may expect you to act in unethical ways in the future, reminding you of your past compliance/cooperation/collaboration/complicity/collusion. She could go as far as suggesting it was your idea, as the accountant, and that she merely took your advice.

Case 24

An example letter might appear as follows:

My Dearest Loving Sister,

Congratulations on winning the lotto! I am honoured that you thought of me when seeking advice.

First, in order for you to decide where to invest your money, it is a great idea to examine the financial statements of each potential company. To do this, you must understand what information is presented on each of the four financial statements:

- **The income statement** (sometimes known as the profit and loss statement or, more correctly, the statement of comprehensive income) presents all revenues earned and all expenses incurred by the corporation. The purpose of the income statement is to present the net income of the company. This tells you how profitable the company was during the specified period of time. A good idea would be to look at the income statements for the past few years and make sure the company has had consistent positive net income – and, even better, to look and see if they are growing.
- **The statement of retained earnings** shows the change in a company's retained earnings over a specific period of time. Net income increases retained earnings, while dividends and net losses decrease retained earnings. Retained earnings serve as a link between the income statement and balance sheet; net income increases retained earnings, and the calculated ending retained earnings are shown on the balance sheet as a part of shareholders' equity.
- **The balance sheet** shows assets, liabilities and shareholders' equity at a specific point in time. It shows a company's resources, or assets, and the claims, or liabilities, against those resources. The basic structure of the statement is: assets equal liabilities plus shareholders' equity. The balance sheet tells you about the financial structure of the company. It tells you how the company finances its operations, whether from lenders (liabilities) or investors (equity).
- **The statement of cash flows** reports a company's cash inflows and outflows. There are three sections on the statement: operating, investing and financing. This statement reveals where a company gets its cash, and then where that cash goes.

I hope this helps. If you have any extra money after you finish investing, I know of a certain Accounting student who could use some extra cash!

Your loving brother/sister.

Enrichment modules: Exercises, problems and cases

Please note: solutions follow at the end of this document.

Exercises

Module.Ex.01.01 Complete financial statements LO2, 3, 4

The following are incomplete financial statements for Lee Limited.

Statement of financial position

Assets	
Cash	$ 6 000
Inventory	20 000
Buildings	(a)
Total assets	64 000
Liabilities and shareholders' equity	
Liabilities	
Accounts payable	$ 7 000
Shareholders' equity	
Contributed capital	(b)
Retained earnings	(c)
Total liabilities and shareholders' equity	64 000

Income statement

Revenues	$120 000
Cost of goods sold	70 000
Administrative expenses	30 000
Net income	$ (d)

Statement of retained earnings

Beginning retained earnings	20 000
Net income	(e)
Dividends	(f)
Ending retained earnings	40 000

Required
Calculate the missing amounts.

Module.Ex.01.02 Net income and retained earnings LO2, 4

Based on the following information, calculate profit or loss and ending retained earnings for the year ending 30 June.

Nova Corporation reports the following as of 30 June:

Revenue	$10 000
Beginning retained earnings	20 000
Expenses	8 000
Dividends	1 000

Required
Calculate profit or loss, and ending retained earnings, for the year ending 30 June.

Module.Ex.01.03 Identify statement of financial position accounts LO3

The following accounts are taken from a statement of financial position:

1. Cash
2. Retained earnings
3. Equipment
4. Supplies
5. Accounts payable.

Required
Indicate whether each account is an asset (A), liability (L) or part of equity (E).

Module.Ex.01.04 Identify income statement accounts LO3

The following accounts are taken from a company's financial statements:

1. Cost of goods sold
2. Sales
3. Dividends
4. Interest revenue
5. Interest expense
6. Depreciation.

Required
Indicate whether each account is a revenue (R), expense (E) or neither (N).

Module.Ex.01.05 Statement of retained earnings LO4

Michaela Machinations has been in business for over 100 years. Retained earnings on 1 January are $245 800. The following information is available for the first two months of the year.

	January	**February**
Revenues	$80 000	$102 000
Expenses	85 000	80 000
Dividends	7 000	

Required
Prepare a statement of retained earnings for the month ending 28 February.

Module.Ex.01.06 Classify cash flows LO5

A company entered into the following cash transactions:

1. Cash paid to suppliers
2. Cash received from issuing new ordinary shares
3. Cash paid to purchase new office furniture
4. Cash paid to owners
5. Cash received from customers.

Required
Indicate the section of the statement of cash flows in which each item would appear: operating activities (O), investing activities (I) or financing activities (F).

Module.Ex.01.07 Qualitative characteristics LO6

The following terms relate to qualitative characteristics of accounting information:

1. Relevance
2. Reliability
3. Comparability
4. Consistency
5. Materiality
6. Conservatism
7. Understandability.

Required
Briefly describe each characteristic.

Problems

Module.Prob.01.08 Errors in accounting LO1, 2, 3

The Mock Company was formed on 1 January. At 31 December, William Mock, CEO and sole shareholder, prepared the company's Statement of Financial Position as follows:

Mock Corporation
Statement of financial position
31 December

Assets	
Cash	$25 000
Accounts receivable	40 000
Inventory	35 000
Buildings	20 000
Liabilities and shareholders' equity	
Accounts payable	$40 000
Building loan	15 000
Retained earnings*	37 000

William (not an accountant by trade) believes there may be some mistakes in his statement of financial position. He has provided you with the following additional information:

- The building is William's personal beach house. However, he plans on using it for company retreats and for hosting some large clients. He decided to list the asset and the corresponding liability for this reason.
- The inventory was originally purchased at $12 000, but due to a recent increase in demand, he believes he could sell it for at least $35 000. He thought that $35 000 would best portray the economic reality of his inventory.
- William included $5 000 in accounts receivable and shareholders' equity for a service that he will provide next year. Since he is an honest man, and will provide the service, he decided to record the amount in this year's statement of financial position.

Required

Comment on what accounting assumptions or principles are violated; briefly describe how each item should be accounted for; and prepare a correct statement of financial position.

Module.Prob.01.09 Identify and correct income statement errors LO2

Muncie Group commenced business on 1 July. At the end of the year, the company had a first-year Accounting student prepare the following income statement:

Muncie Group
Income statement
30 June

Income from services	$170 000
Account receivable	40 000
Total income	210 000
Less: expenses	
Salaries	57 000
Advertising	(14 000)
Dividends	10 000
Depreciation	22 000
Total expenses	75 000
Net income	135 000

Required

List all of the deficiencies that you can identify in this income statement, and prepare a proper income statement.

Module.Prob.01.10 Identify and correct statement of financial position errors LO3

Bizilia’s commenced business on 1 January. At the end of the year, an employee with a Mathematics degree prepared the following statement of financial position:

Bizilias’s
Statement of financial position
For the year ending 31 December

Resources	
Cash	30 000
Stuff we can sell	40 000
Equipment	61 000
Retained earnings	17 000
Grand total	146 000
Debts	
Money we owe to vendors	43 000
Accumulated depreciation	8 000
Contributed capital	63 000
Grand total	114 000

Required

List all of the deficiencies that you can identify in this statement of financial position, and prepare a proper statement of financial position.

Module.Prob.01.11 Statement of financial position equation LO3

Consider the following independent situations:

1. Versa starts the year with $20 000 in assets and $14 000 in liabilities. Profits for the year are $9 500, and no dividends are paid. How much is the shareholders’ equity at the end of the year?

2. Intex doubles its assets from the beginning to the end of the year. Liabilities at the end of the year are $75 000, and shareholders' equity is $40 000. What is the amount of Intex's assets at the beginning of the year?

3. During the year, the liabilities of Herbert Limited triple in amount. Assets at the beginning of the year were $52 000, and shareholders' equity is $22 000. What is the amount of liabilities at the end of the year?

Required

Use the accounting equation to answer each situation.

Module.Prob.01.12 Financial statements LO2, 3, 4, 5

The following are various questions posed by different users of accounting information.

User	Questions	Financial statement
Shareholder	Are sales rising as fast as inventory balances?	____________
Banker	Did the company pay dividends to shareholders last year?	____________
Manager	How much capital have shareholders contributed to the company?	____________
Shareholder	What is the ratio between liabilities and equity?	____________
Regulator	Did the company earn abnormally high profits due to price gouging	____________
Employee	How much did employees earn in wages last year?	____________

Required

Fill in the blank with the financial statement(s) the user would most likely use to find this information.

Module.Prob.01.13 Preparing financial statements LO2, 3, 4

During the month of April, you conduct art seminars for children. On 1 April, you borrow $500 from your parents, buy $400 of supplies, and pay $50 for advertising on the radio and $25 to rent a room in a local recreation centre. You charge $20 per child per seminar. At the end of the month, you have held seminars for 80 children, of which you have received payment for 76. You have $30 of supplies remaining, and you pay your parents $5 for the use of their money during the month.

Required
Prepare an income statement and a statement of retained earnings for the month ending 30 April, and a statement of financial position at 30 April.

Cases

Module.Case.01.14 Read, locate and compare financial statements LO2, 3, 5

Access JB Hi Fi's latest financial statements.

Required

a. Identify revenues, profits before tax, total assets, cash flows from operating activities and the date on which the financial statements are prepared.

b. Compare David Jones' financial statements to JB Hi Fi's, and identify which company is:

- the larger
- the more profitable
- best able to generate cash from its operations.

Module.Case.01.15 Ethics in accounting LO1, 2, 6

As the chief financial officer (CFO) at Blaire's Costume Jewellery Company, you discover that profits for the previous five years have been overstated due to an error in accounting. After much thought, you decide to approach the company president. His response is, 'What the public doesn't know won't hurt them. We'll just adjust this year's profits to make up for the mistakes. We had a pretty good year, and I think our income for this year can absorb the errors.'

Required
Identify the ethical dilemma of this situation; identify the ways that you could respond; and explain the possible consequences of your response.

Enrichment module solutions: exercises, problems and cases

Exercises

Module.Ex.01.01

a. Total assets = Cash + Inventory + Building
$64 000 = $6 000 + $20 000 + Building
Building = <u>$38 000</u>

b. Total liabilities and shareholders' equity – Total liabilities = Total shareholders' equity
$64 000 – $7 000 = $57 000
Total shareholders' equity = Contributed capital + Retained earnings
$57 000 = Contributed capital + $40 000
Contributed capital = <u>$17 000</u>

c. Retained earnings = <u>$40 000</u> (from the statement of retained earnings)

d. Revenues – Cost of goods sold – Administrative expenses = Profits
$120 000 – $70 000 – $30 000 = Net income
Profits = <u>$20 000</u>

e. Profits = <u>$20 000</u> (from the income statement)

f. **Beginning retained earnings + Profits – Dividends = Ending retained earnings**
$20 000 + $20 000 – Dividends = $40 000
Dividends = <u>$0</u>

Module.Ex.01.02

Profits = Revenue – Expenses
Profits = $10 000 – $8 000
Profits = $2 000

Retained earnings = Beginning retained earnings + Profits (or minus loss) – Dividends
Retained earnings = $20 000 + $2 000 – $1 000
Retained earnings = $21 000

Module.Ex.01.03

1. A
2. E
3. A
4. A
5. L

Module.Ex.01.04

1. E
2. R
3. N
4. R
5. E
6. E

Module.Ex.01.05

First, calculate ending retained earnings at 31 January, which are equal to beginning retained earnings at 1 February.

1 Jan.	Retained earnings	$245 800
	Add: Profits($80 000 – $85 000)	(5 000)
	Less: Dividends	0
31 Jan.	Retained earnings	$240 800

Michaela Machinations
Statement of retained earnings
For the month ending 28 February

1 Feb.	Retained earnings	$240 800
	Add: Profits*	22 000
	Less: Dividends	(7 000)
28 Feb.	Retained earnings	255 800

*Profits = Revenue – Expenses = $102 000 – $80 000 = $22 000

Module.Ex.01.06

1. O
2. F
3. I
4. F
5. O

Module.Ex.01.07

1. **Relevance**: The capacity of accounting information to make a difference in decisions.
2. **Reliability**: The extent to which accounting information can be depended upon.
3. **Comparability**: The ability to compare or contrast the financial activities of the same entity over time.
4. **Consistency**: The ability to compare or contrast the financial activities of the same entity over time.
5. **Materiality**: The threshold at which a financial item begins to affect decision-making.
6. **Conservatism**: The manner in which accountants deal with uncertainty regarding economic situations.
7. **Understandability**: The ability to comprehend the financial activities by a person who has a reasonable understanding of business and is willing to study the information with reasonable diligence.

Problems

Module.Prob.01.08

- The economic entity assumption, which states that the personal affairs of the owners are assumed to be separate from the business affairs of the entity, has been violated. The corporation should rent the beach house from William and record the expense. The beach house is not an asset of the business, so neither the asset nor the related liability should be reported on the corporation's statement of financial position.
- The cost principle, which states that assets should be recorded at historical cost,

has been violated. Market value is subjective; therefore, the inventory should be correctly recorded at $12 000.

- The revenue recognition principle has been violated. A receivable and the increase in shareholder's equity cannot be recorded until the service has been provided and the revenue is earned.

Mock Corporation
Statement of financial position
For the year ended 31 December

Assets	
Cash	$25 000
Accounts receivable	35 000
Inventory	12 000
Total assets	72 000
Liabilities and shareholders' equity	
Accounts payable	$40 000
Retained earnings	32 000
Total liabilities and shareholders' equity	72 000

Module.Prob.01.09

Deficiencies:

- '30 June' should read 'For the year ended 30 June'.
- 'Income from services' should read 'Service revenue'.
- Accounts receivable should not be reported on the income statement; it should be reported on the statement of financial position.
- 'Total income' should read 'Total revenue'.
- Dividends are not an expense and should be reported on the statement of retained earnings, not the income statement.
- Advertising expense should not be a negative expense, it should be an addition to the total expenses that will be deducted from revenue to reach net income.

Muncie Group
Income statement
For the year ended 30 June

Service revenue		$170 000
Less expenses		
Salaries	57 000	
Advertising	14 000	
Depreciation	22 000	
Total expenses		93 000
Profits		77 000

Module.Prob.01.10

Deficiencies:

- '31 December' should read 'For the year ended 31 December'.
- Items should be classified as assets, liabilities and shareholders' equity, not as resources and debts.
- 'Stuff we can sell' should read 'Inventory'.
- Retained earnings should be classified as part of shareholders' equity.
- 'Grand total' should read 'Total assets' and 'Total liabilities and shareholders' equity'.
- 'Money we owe to vendors' should read 'Accounts payable'.
- Accumulated depreciation should be under 'Assets', as it is a reduction to the equipment account.

Bizilias's
Statement of financial position
For the year ended 31 December

Assets	
Cash	30 000
Inventory	40 000
Equipment	61 000
Less: Accumulated depreciation	(8 000)
Total assets	123 000

Liabilities and shareholders' equity	
Accounts payable	43 000
Contributed capital	63 000
Retained earnings	17 000
Total liabilities and shareholders' equity	123 000

Module.Prob.01.11

1. If Versa starts the year with $20 000 in assets and $14 000 in liabilities, then the equation A = L + E tells us that Versa started the year with $6 000 in equity ($20 000 = $14 000 + Equity). With profits of $9 500 and dividends of $0, equity increased $9 500 during the year. Therefore, owners' equity at the end of the year is $15 500 ($6 000 + $9 500).

2. If Intex ends the year with $75 000 in liabilities and $40 000 in equity, then the equation A = L + E tells us that Intex ended the year with $115 000 in assets (Assets = $75 000 + $40 000). If Intex doubled its assets during the year, then it must have started the year with $57 500 ($115 000 ÷2 = $57 500).

3. If Herbert starts the year with $52 000 in assets and $22 000 in equity, then the equation A = L + E tells us that Herbert started the year with $30 000 in liabilities ($52 000 = Liabilities + $22 000). If liabilities tripled during the year, then Herbert has $90 000 in liabilities at the end of the year ($30 000 × 3 = $90 000).

Module.Prob.01.12

User	**Questions**	**Financial statement**
Shareholder	Are sales rising as fast as inventory balances?	IS and FP
Banker	Did the company pay dividends to shareholders last year?	RE
Manager	How much capital have shareholders contributed to the company?	FP
Shareholder	What is the ratio between liabilities and equity?	FP

Regulator	Did the company earn abnormally high profits due to price gouging	IS
Employee	How much did employees earn in wages last year?	IS

Module.Prob.01.13

Income statement
For the month ending 30 April

Service revenue ($20 x 80)		$1 600
Expenses		
Supplies	$370	
Interest	5	
Advertising	50	
Rent	25	
Total expenses		450
Profit		$1 150

Statement of retained earnings
For the month ending 30 April

1 Apr.	Retained earnings	$ 0
	Add: Profits*	1 150
	Less: Dividends	(0)
30 Apr.	Retained earnings	$1 150

Statement of financial position
For the year ended 30 April

Assets	
Cash (see note 1)	$1 540
Accounts receivable ($20 x 4 payment not received)	80
Supplies	30
Total assets	$1 650
Liabilities and shareholders' equity	
Note payable	500
Retained earnings	1 150

Total liabilities and shareholders' equity	$1 650

Note 1: $1 540 = $500 – $400 – $50 – $25 + $1 520 – $5

Cases

Module.Case.01.14

The aim of this exercise is to encourage students to look at financial statements and start to notice that they show different aspects of financial performance and position.

Answers will depend on which year's financial statements are used.

Module.Case.01.15

Ethical dilemma

Your boss wants you to ignore the fact that previous and current financial statements are misstated, and therefore mislead investors. He is arguing that over the total six-year period, total profit will be reported correctly, so the incorrect reporting each year is not important.

Possible responses

Option 1: 'I understand that profits are large enough this year to absorb the previous losses and still be profitable, but the information we will be reporting is not correct. It is therefore not reliable. We should report unbiased information to our investors. We should disclose the errors in the previous years and report current-year results truthfully.'

Consequence: Although it will be hard to stand up to your boss, this is the right action to take in this situation. By recognising the error in restating prior financial statements, you avoid committing another error by misstating current profits. There may be negative consequences to this action, in that you may be criticised for not being 'a team player'.

Option 2: 'I understand, Mr. Boss. I will do what I am told.'

Consequence: The current year's profits will be understated and prior years' income will remain overstated. If someone outside the company discovers that the company knew of and ignored the error, there could be more severe consequences than just restating the financial statements. Additionally, if you do as your boss says this time, he may expect you to act in unethical ways in the future.

Chapter 2
Financial statements

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Chapter overview

This chapter introduces the classified balance sheet (the statement of financial position), the multi-step income statement (the profit and loss statement or, more correctly, the statement of comprehensive income) and the statement of changes in equity (the changes in shareholders' equity or – the part the chapter concentrates on – the change in retained earnings). It also introduces two analysis techniques, horizontal and vertical analysis, which are simple but powerful tools for generating a more thorough understanding of a company's balance sheet and income statement.

Key concepts

- One of the first decisions that any new business faces is the form that it will take.
- The accounting organisation that sets major accounting standards is the Australian Accounting Standards Board (AASB).
- Just like individuals, companies (corporations) must pay taxes on their incomes.
- Common-size statements allow investors and creditors to compare companies of vastly different sizes.
- The statement of retained earnings (part of the statement of changes in equity) links a company's income statement and balance sheet.
- Since you do not have the ability to determine whether a company's reported numbers are reliable, you must rely on a third party (auditors) to provide assurance that the information is reliable.

Learning objectives

LO1: Explore the three major forms of business.

LO2: Define generally accepted accounting principles (GAAP) and their origins.

LO3: Describe the main classifications of assets, liabilities and equity in a classified balance sheet.

LO4: Describe the main subtotals of income on income statement.

LO5: Analyse the balance sheet and the income statement using horizontal and vertical analyses.

LO6: Explain the purpose of a statement of changes in equity.

LO7: Discuss the types of information usually disclosed along with financial statements.

Lecture outline

LO1: Business forms

There are three major types of business:

1. A **sole proprietorship (sole trader)** is a business owned by one person. It is the simplest type of business in Australia.
2. A p**artnership** is a business that is formed when two or more proprietors join together to own a business. Partnerships can be established by either a written or an oral agreement, and can include any number of partners.
3. A **corporation (company)** is a separate legal entity that is established by registering with Australian Securities and Investments Commission (ASIC). Examples include Commonwealth Bank, BHP and many small private companies (e.g. XYZ Pty Ltd.)

Key concept

One of the first decisions that any new business faces is the form that it will take.

Teaching tip

Ask students to decide which form of business would be suitable in each of the following cases:

a. Julius has a good business idea, but lacks the capital to make it work. John, his friend, has surplus cash which he wants to put in some new venture in which he would have substantial control.

b. Ricky is very enterprising in nature and wants to start a business. However, he is reluctant to share the risks and rewards associated with the business.

c. A group of investors want to start a business together on a large scale, but they don't have the required technical competence to form and manage a business of that volume. However, they do not mind if ownership is divorced from the management of the proposed business.

LO2: Generally accepted accounting principles

- Generally accepted accounting principles are the accounting rules, principles and procedures that comprise the practise of financial accounting. These principles have been developed over time
- As accounting is practised throughout the world, there is a movement to develop one set of international accounting standards to be used by all countries.
  - The International Accounting Standards Board (IASB) is a board whose mission is to develop a single set of high-quality standards requiring transparent and comparable information.
  - The standards developed by IASB are called International Financial Reporting Standards (IFRS). Australia adopted them in 2005

Key concept

The accounting organisation that sets major accounting standards is the Australian Accounting Standards Board (AASB).

Teaching tip

Consider the following:

a. An agency that protects investors and maintains the integrity of securities markets.
b. A board whose mission is to develop a single set of high-quality standards
c. A standard-setting body whose mission is to establish and improve standards of financial accounting and reporting in Australia
d. Standards developed by the International Accounting Standard Board.

Ask students to match each of the aforesaid statements with one of the following acronyms:

a. AASB
b. ASIC
c. IFRS
d. IASB.

LO3: The balance sheet

A balance sheet groups together accounts of similar nature and reports them in a number of major classifications:

- Assets: a resource of a business. Assets are generally grouped into three main categories on a balance sheet:
  - Current assets: any asset that is reasonably expected to be converted to cash or consumed within one year of the balance sheet date. Examples include cash, accounts receivables, inventories and prepaid expenses
  - Non-current assets: the tangible resources that are used in a company's operations for more than one year and are not intended for resale. Examples include land, buildings, equipment, furniture and fixtures.
  - Intangible assets: a resource that is used in operation for more than one year, is not intended for resale and has no physical substance. Examples include trademarks, patents, franchise rights, copyrights and goodwill.
- Liabilities are an obligation of a business. Liabilities are generally placed into two main categories on a balance sheet:
  - Current liabilities: an obligation that is reasonably expected to be satisfied within one year. Examples include accounts payable and salaries payable to employees.
  - Non-current liabilities: an obligation that is not expected to be satisfied within one year. Examples include notes payable, mortgage payable and bonds (debentures) payable.
- Equity is the difference between a company's assets and its liabilities. It is generated from the following two sources:
  - Retained earnings: the amount of equity a company generates by being profitable and retaining those profits in the business.
  - Contributed capital: the amount of equity the owners put in. (A company generates through the sale of shares to investors.)

Teaching tip

Ask students to identify what heading each of the following items would appear under in a balance sheet:

- franchise rights
- preference shares
- notes payable

- taxes payable
- equipment
- investment in bonds.

LO4: The income statement

Companies generally use one of two forms for their income statements:

- A **single-step income statement** calculates total revenues and total expenses and then determines net income (profit or loss) in one step by subtracting total expenses from total revenues. This is usually used by service companies.
- A m**ulti-step income statement** calculates income by grouping certain revenues and expenses together and calculating several subtotals of income. These subtotals include the following:

– Gross profit: the profit that a company generates when considering only the sales revenue and the cost of the goods sold.
– Sales revenue: the resources that a company generates during a period from selling its inventory.
– Cost of goods sold: the cost of the inventory sold during a period.
– Operating (other) expenses: expenses that a company incurs during normal operations; e.g. advertising, salaries, utilities, depreciation, insurance, etc.
– Profits or loss (income) before taxes: the profit that a company generates when considering all revenues and expenses except for income taxes.
– Income taxes: the amount of income tax expense for a given period.
– Comprehensive income net of tax: the other items that are not considered to have the same clear revenue and expense classifications as those included above – unrealised gains and losses. These are probably too complex to introduce at this stage.
– Total comprehensive income: 'bottom line' profit.

Key concept

Just like individuals, corporations must pay taxes on their incomes.

Teaching tip

Percentage of gross profit on cost is 25 per cent for Monty. Ask students to complete the income statement with appropriate dollar amounts.

Sales revenue	$?
Cost of sales	?
Gross profit	25 000
Selling expenses	?
Total operating expenses	16 000
Net profit (loss)	?
General and administrative expenses	$(4 000)

LO5: Horizontal and vertical analysis

- Horizontal analysis: a method of analysing a company's account balances over time by calculating absolute and percentage changes in each account.
  - The dollar change in the account balance is the current year's balance less the prior year's balance.
  - The percentage change in the account balance is determined by dividing the dollar change in account balance by the prior year's balance.
- Vertical analysis: a method of comparing a company's account balances within one year by dividing each account balance by a base amount to yield a percentage. The product of a vertical analysis is sometimes called a common-size financial statement.
  - The base account is the total assets for balance sheet accounts.
  - The base account is net sales or revenues for income statement accounts.

Key formulas

Horizontal analysis:

Dollar change in account balance = (Current year balance – Prior year balance)
Percentage change in account balance = Dollar change ÷ Prior year balance

Vertical analysis:

Percentage (for the balance sheet) = (Account balance ÷ Total assets) Percentage (for income statement) = (Account balance ÷ Net sales or Revenue)

Key concept

Common size statements allow investors and creditors to compare companies of vastly different sizes.

Teaching tip

After studying the following income statements, Johnson, a CA, is of the view that the performance of Dark Company is better, despite the fact that Light Company's net income is higher by $51 500. Ask students whether they agree with his view, and to substantiate their answers.

	Light Company	**Dark Company**
Sales revenue	$1 000 000	$250 000
Cost of sales	700 000	150 000
Gross profit	300 000	100 000
Operating expenses	150 000	25 000
Profits before tax	150 000	75 000
Income tax	45 000	21 500
Net profit (loss)	$105 000	$53 500

LO6: The statement of changes in equity

Statement of changes in equity is a financial statement that shows how and why each equity account in the company's balance sheet changed from one year to the next. A statement of changes in equity consists of the following:

- Ordinary shares (contributed capital) and additional paid-in capital: the capital that has been contributed to the company through the issuance of shares.
- Retained earnings: the equity that has been generated through profitable operations and retained in the business.
- Other items (see David Jones's annual report): items beyond first-year Accounting.

Key concept

The statement of retained earnings links the company's income statement and balance sheet.

Teaching tip

Where would each of the following accounts appear in different financial statements?

- Additional paid – in capital
- Interest receivable
- Interest revenue
- Contributed capital
- Cost of goods sold
- General expenses
- Dividends.

LO7: Information beyond the financial statements

- **Notes to the financial statements** are additional textual and numerical information immediately following the financial statements that:
  - disclose the accounting methods used to prepare the financial statements
  - disclose additional detail and explanation of account balances
  - provide information not recognised in the financial statements.
- An **independent auditor's report** is a report prepared by a registered company auditor for the public shareholder stating an opinion on whether the financial statements present fairly, in conformity with AASB, the company's financial condition and the results of operations and cash flows.
- **Management's discussion and analysis** is a discussion and analysis of the financial activities of the company by the company's management.
  - It contains comments on the company's results of operations, its ability to satisfy its current obligations and its expansion plans.
  - It contains details of the corporate governance and remuneration of senior management and directors.
  - In other areas, it may be useful in generating expectations for the future.

Key concept

Since you don't have the ability to determine whether a company's reported numbers are reliable, you must rely on a third party to provide assurance.

Teaching tip

There is a pending environmental lawsuit against Big Mining Ltd. The decision is likely to go against the company. The company is in a fix as to whether or not this information should be reported.

Ask students whether this is material information and, if yes, where and how it should be reported.

Solutions for end-of-chapter material

Exercises at the end of the chapter contain, for practice and clarity, theoretical and numerical questions based on the financial statements. Problem 13 provides a better understanding of preparing and analysing a balance sheet. Problem 14 provides a better understanding of preparing and analysing a detailed income statement.

Exercises

Exercise 1. Miscellaneous terms

1. Partnership
2. Notes to the financial statements
3. Corporation
4. Auditor's report
5. Sole proprietorship
6. Management's discussion and analysis

Teaching tip

One of the first decisions that any new business must face is the form that it will take. In addition to financial statements, further information that is useful to creditors and investors is provided by the notes to the financial statements, the auditor's report and management's discussion and analysis.

Exercise 2. Classified balance sheet

- Accounts receivable: Current asset
- Sales: Retained earnings
- Inventories: Current asset
- Accounts payable: Current liability
- Cash: Current asset
- Prepaid insurance: Current asset (not an expense)
- Equipment: Non-current asset
- Short-term investment: Current asset

Current assets	
Cash	7 330
Short term investment	880
Accounts receivable	1 200
Inventories	3 150
Prepaid insurance	2 800
Total current assets	15 360

Teaching tip

A balance sheet groups together accounts of similar nature and reports them in a few major classifications which help when reviewing and analysing a company. Assets are generally grouped into three main categories on a balance sheet:

1. current assets
2. non-current assets
3. intangible assets (sometimes included).

Helpful hint for students

Current assets are listed in the order of liquidity, with Cash first and Prepaid insurance last, since the latter may be the hardest to turn into cash in the normal course of business.

Exercise 3. Calculate gross profit

Gross profit = Sales – Cost of sales = $15 000 – $11 500 = $3 500

Exercise 4. Calculate profit after tax

Profit (sometimes called Operating profits) = Gross profit – Other (operating) expenses

= $7 750 000 – $1 500 000 – $2 100 000 = $4 150 000

Profit after tax = Profit (before tax) – Income tax expense

= $4 150 000 – $2 000 000 = $2 150 000

Exercise 5. Horizontal and vertical analysis

Horizontal analysis:		
Dollar change =	$1 787 – $1 252 =	$535 increase
Percentage change =	$535/$1 252 =	42.7% increase

Vertical analysis:	Current year	Prior year
Gross profit/Net sales	$1 787/$4 605 = 38.8%	$1 252/$3 758 = 33.3%

The company was more profitable in the current year. Both horizontal and vertical analyses prove this. Horizontal analysis shows that gross profit increased 42.7% in the current year. Vertical analysis shows that gross profit as a percentage of net sales grew from 33.3% in the prior year to 38.8% in the current year.

Exercise 6. Horizontal analyses

1. The company's $1.5 million change in sales revenue was a positive change as indicated by the positive 22.8 percentage change. That is, the current year's sales revenue was $1.5 million greater than the previous year's sales revenue.

2. Either (a) or (c) could explain the large increase in sales revenue.

- **a.** A sales promotion was highly successful. Yes – this would mean more customers buying more products.
- **b.** A manufacturing plant was offline for much of the year due to maintenance. No – this would explain a decrease in sales.
- **c.** The company opened several new stores. Yes – this would likely generate new sales from new customers.
- **d.** The company lost market share to a new competitor. No – this would explain a decrease in sales.
- **e.** The company issued $1.5 million of shares during the year. No – this explains a source of cash, not revenue.

Teaching tip

Horizontal analysis is a method of analysing a company's account balances over time. It is very useful in identifying trends in a company.

Helpful hint for students

Consider what activities would cause sales to increase for a company. Effective advertising and sales promotions? Opening of additional stores? An increase in the company's market share?

Exercise 7. Statement of change in equity

Statement of change in equity
Year end

	Contributed capital	Add CC	Retained earnings	Total
* **Balance at year end**	20 600	100 000	75 129	195729

Note: Retained earnings beginning + Profits – Dividends = Retained earnings end

$62 496 + $22 133 – $9 500 = $75 129

Teaching tip

We are primarily interested at this stage in at changes in retained earnings – the 'Note' above.

Exercise 8. Classified balance sheet

- Mortgage payable – Non-current liability
- Short-term investments – Current asset
- Cash – Current asset
- Prepaid rent – Current asset
- Patents – Intangible asset
- Contributed capital – Shareholders' equity
- Accounts payable – Current liability
- Buildings – Non-current asset (sometimes called a fixed asset)
- Notes payable – Current liability

Teaching tip

A classified balance sheet groups together accounts of similar nature and reports them in a few major classifications that help when reviewing and analysing a company. Assets are generally grouped into two main categories on a classified balance sheet: current assets and non-current assets. Liabilities are generally grouped as current liabilities and non-current (or long-term) liabilities. Shareholders' equity is classified as contributed capital and retained earnings.

Helpful hint for students

Assets and liabilities that are not current are called non-current. Contributed capital is capital that has been contributed (put in), and retained earnings are earnings that have been retained (left in).

Exercise 9. Classified balance sheet terms

1. e or f, but more likely e, because it in within the normal operations (or operating cycle).
2. b
3. f
4. Not there – it is contributed capital or, less accurately, shareholders' equity.
5. a
6. c
7. g
8. d

Teaching tip

This is not a straightforward question, and it should only be given if you want students to be challenged, and to realise that there will not always be straightforward answers and that they should at times be willing to back their own judgement. Students should also be encouraged to realise there are different terms used by different companies in Australia, and even more so in overseas companies.

Exercise 10. Balance sheet

	Sally's Fish & Chips	**Brina's Bar & Grill**	**Ely's Tanning Salon**
ASSETS			
Current assets	48 500	35 000	64 500
Non-current assets	125 750	100 000	150 000
Intangible assets	32 250	55 250	15 000
Other assets	**13 500**	35 500	6 500
Total assets	220 000	225 750	**236 000**
LIABILITIES			
Current liabilities	15 500	7 000	**3 500**
Non-current liabilities	45 000	**68 000**	65 500
Total liabilities	**60 500**	75 000	69 000
EQUITY			
Ordinary shares	55 000	**225 750**	67 500
Retained earnings	**104 500**	105 000	**99 500**
Total liabilities and equity	220 000	**45 750**	**236 000**

Teaching tip

This is a good opportunity to reinforce the accounting equation introduced in Chapter 1. The new classifications do not change the premise of the accounting equation.

Helpful hint for students

By using your knowledge of the accounting equation and the relationship among the balance sheet accounts, you can make this a simple mathematical problem.

Exercise 11. Classified balance sheet

Auburn Bowling Lanes
Balance sheet
For the year ended 30 June

Assets		
Current assets		
Cash	$20 840	
Accounts receivable	14 520	
Prepaid insurance	4 680	
Total current assets		$ 40 040
Non-current assets		
Building	$60 200	
Equipment	63 680	
Land	61 200	
Total non-current assets		185 080
Total assets		$225 120
Liabilities and shareholders' equity		
Current liabilities		
Accounts payable	$12 480	
Interest payable	3 600	
Mortgage payable (due next year)	13 600	
Total current liabilities		$ 29 680
Non-current liabilities		
Mortgage payable		89 440
Total liabilities		$119 120
Shareholders' equity		
Ordinary shares (contributed capital)	$66 000	
Retained earnings	40 000	
Total shareholders' equity		106 000
Total liabilities and shareholders' equity		$225 120

Teaching tip

A balance sheet groups together accounts of a similar nature and reports them in a few major classifications which help when reviewing and analysing a company. Assets are generally grouped into three main categories on a balance sheet: current assets, non-current assets and intangible assets. Liabilities are generally grouped as current liabilities and non-current liabilities. Shareholders' equity is contributed capital (ordinary shares or paid-up capital) and retained earnings.

Helpful hint for students

Even though a balance sheet groups together accounts of a similar nature and reports them in a few major classifications, the accounting equation still prevails. Therefore, Assets = Liabilities + Shareholders' equity.

Exercise 12. Multi-step income statement

Brown's Used Cars
Income statement
For the year ended 31 December

Net sales		$154 900
Cost of sales		75 620
Gross profit		$ 79 280
Operating expenses		
Administrative expenses	$15 230	
Selling expenses	14 600	
Electricity expenses	17 650	47 480
Other revenue and expenses		
Interest revenue	$ 500	
Interest expense	(50)	450
Profit (income) before income taxes		$ 32 250
Income tax expense ($32 250 × 30%)		9 675
Net profit		$ 22 575

Teaching tip

A multi-step income statement calculates income by grouping together certain revenues and expenses and calculating several subtotals of income. Sales revenue is listed first, then cost of sales. Subtracting cost of sales from net sales then yields the first subtotal of income, gross profit. After gross profit is reported, other expenses are listed. Finally, net income (profit or loss) after tax is determined. Comprehensive income is beyond the scope of Chapter 2.

Helpful hint for students

'**Income before taxes':** Usually, the amount of tax in a given period is listed separately on a multi-step statement as a provision for income taxes. It this exercise, use 30% × Income before taxes. But there is a difference between taxable income and accounting income.

Exercise 13. Multi-step income statement

Matthews Music Group
Income Statement
For the Year Ending December 31

Sales		$153,010
Cost of Sales		83,910
Gross profit		$ 69,100
Operating (other) expenses:		
Advertising	$ 6,210	
Insurance	3,960	
Rent	11,410	
Salaries	28,525	
Supplies	5,600	
Total other expenses		55,705
Operating income		$ 13,395
Other revenues (expenses):		
Interest revenue		6,055
Interest expense		(4,115)
Profits (income) before income tax		$ 15,335
Income tax expense		2,250
Net profits (income)		$ 13,085

Teaching tip

A multi-step income statement calculates income by grouping together certain revenues and expenses and calculating several subtotals of income. Sales revenue is listed first, then cost of sales. Subtracting cost of sales from net sales then yields the first subtotal of income, gross profit. After gross profit is reported, other expenses are listed. Interest revenue and interest expenses could be reported higher up in the income statement, but both should come after gross profits. Finally, net income (profit or loss) after tax is determined. Comprehensive income is beyond the scope of Chapter 2.

Helpful hint for students

'**Income before taxes':** Usually, the amount of tax in a given period is listed separately on a multi-step statement as provision for income taxes. In this exercise, it is given as a figure not a percentage. But remember that there is often a difference between the taxable income figure and the accounting income figure (number, dollar amount).

Exercise 14. Financial statement accounts

- Interest revenue: income statement (statement of comprehensive income)
- Buildings: balance sheet
- Investments: balance sheet
- Dividends: statement of changes in equity
- Accounts payable: balance sheet
- Retained earnings: balance sheet and statement of changes in equity
- Interest payable: balance sheet
- Contributed capital (ordinary shares): balance sheet and statement of changes in equity
- Cost of sales: income statement
- Administrative expense: income statement
- Additional paid in capital: balance sheet and statement of changes in equity
- Cash: balance sheet.

Helpful hint for students

A statement of changes in equity is a financial statement that shows how and why each equity account in the company's balance sheet changed from one year to the next. It therefore focuses on retained earnings as well as other equity accounts relating to a company's contributed capital, including dividends.

Exercise 15. Horizontal and vertical analyses

Horizontal analysis:

	Increase/decrease	**Calculations**
Sales	$50 000 increase	($850 000 – $800 000)
	6.3% increase	[($850 000 – $800 000)/$800 000]
Cost of sales	$50 000 increase	($325 000 – $275 000)
	18.2% increase	[($325 000 – $275 000)/$275 000]
Gross profit	$0 increase/decrease	($525 000 – $525 000)
	0% increase/decrease	[($525 000 – $525 000)/$525 000]
Operating expenses	$55 000 increase	($175 000 – $120 000)
	45.8% increase	[($175 000 – $120 000)/$120 000]
Operating profit	$55 000 decrease	($350 000 – $405 000)
	13.6% decrease	[($350 000 – $405 000)/$405 000]
Income tax expense	$16 500 decrease	($105 000 – $121 500)
	13.6% decrease	[($105 000 – $121 500)/$121 500]
Net income:	$38 500 decrease	($245 000 – $283 500)
	13.6% decrease	[($245 000 – $283 500)/$283 500]

Vertical analysis:

	2015
Cost of sales/sales	$275 000/$800 000 = 34.4%
Gross profit/sales	$525 000/$800 000 = 65.6%
Operating expenses/sales	$120 000/$800 000 = 15.0%
Operating profit/sales	$405 000/$800 000 = 50.6%
Income taxes/sales	$121 500/$800 000 = 15.2%
Net income/sales	$283 500/$800 000 = 35.4%

	2016
Cost of sales/sales	$325 000/$850 000 = 38.2%
Gross profit/sales	$525 000/$850 000 = 61.8%
Operating expenses/sales	$175 000/$850 000 = 20.6%
Operating profit/sales	$350 000/$850 000 = 41.2%
Income taxes/sales	$105 000/$850 000 = 12.4%
Net income/sales	$245 000/$850 000 = 28.8%

Teaching tip

Since financial statements communicate economic information about a company to interested parties, certain comparisons can provide a more thorough understanding of a company's financial activities. Horizontal analysis is a method of analysing a company's account balances over time; it is very useful in identifying trends in a company. Vertical analysis is a method of comparing a company's account balances within one year.

Helpful hint for students

Horizontal analysis is calculated as follows. First, the dollar change in an account is determined. This is defined as the current year balance less the prior year balance. The dollar change is then divided by the prior year balance to yield a percentage change. Vertical analysis is calculated by dividing each account balance by a base account, yielding a percentage. The base account is total assets for balance sheet accounts and net sales or revenues for income statement accounts.

Exercise 16. Horizontal and vertical analyses

	Increase/decrease	**Computation**
Total assets:	$150 000 increase	($850 000 – $700 000)
	21.4% increase	[($850 000 – $700 000)/$700 000]
Total liabilities:	$40 000 decrease	($240 000 – $280 000)
	14.3% decrease	[($240 000 – $280 000)/$280 000]
Total equity:	$190 000 increase	($610 000 – $420 000)
	45.2% increase	[($610 000 – $420 000)/$420 000]

Vertical analysis:

	2015
Total liabilities/Total assets	$280 000/$700 000 = 40%
Total equity/Total assets	$420 000/$700 000 = 60%

	2016
Total liabilities/Total assets	$240 000/$850 000 = 28.2%
Total equity/Total assets	$610 000/$850 000 = 71.8%

Ellis is less risky in 2016 because it generates more assets through equity. Total liabilities as a percentage of total assets decrease from 40 per cent in 2015 to 28.2 per cent in 2016. Total equity increases from 60 per cent in 2015 to 71.8 per cent in 2016, meaning that more assets came from equity, which is less risky (but not necessarily 'better').

Teaching tip

Since financial statements communicate economic information about a company to interested parties, certain comparisons can provide a more thorough understanding of a company's financial activities. Horizontal analysis is a method of analysing a company's account balances over time and is very useful in identifying trends in a company. Vertical analysis is a method of comparing a company's account balances within one year. An examination of the balance sheet shows overall growth. Total assets increased and total liabilities decreased, which indicates that the company's asset growth was not generated by borrowing from creditors.

Helpful hint for students

Horizontal analysis is calculated as follows. First, the dollar change in an account is determined. This is defined as the current year balance less the prior year balance. The dollar change is then divided by the prior year balance to yield a percentage change. Vertical analysis is calculated by dividing each account balance by a base account, yielding a percentage. The base account is total assets for balance sheet accounts and net sales or revenues for income statement accounts.

Exercise 17. Horizontal and vertical analyses

Horizontal analysis:

	Increase/decrease	**Calculation**
Net sales:	$1 473 increase	($121 345 – $119 872)
	1.2% increase	$1 473/$119 872
Accounts receivable:		
	$17 516 increase	($30 192 – $12 676)
	138.2% increase	$17 516)/$12 676
Total assets:	$3 428 decrease	($246 933 – $250 361)
	1.4% decrease	$(3 428)/$250 361

Vertical analysis:

Current year

Accounts receivable/Total assets	$30 192/$246 933 = 12.2%
	Prior year
Accounts receivable/Total assets	$12 676/$250 361 = 5.1%

Yes – the company should be concerned. Although horizontal analysis of net sales shows some growth in sales of 1.2%, overall total assets shrank by 1.4% during the year. Most concerning is that accounts receivable increased by 138.2% (more than doubling). Moreover, accounts receivable as a percentage of assets rose from 5.1% in the prior year to 12.2% in the current year, and all other assets must have decreased. These analyses suggest that the increase to receivables is not because sales or assets increased, but because the company is having difficulty collecting its sales. This needs to be investigated. Did the company change it terms of granting credit? (Did they allow longer to pay? If they did, it didn't result in increased sales.)

Exercise 18. Financial accounting terms

a. 3
b. 2
c. 4
d. 5
e. 1
f. 6

Teaching tip

This is a question that quickly summarises overall knowledge. It could be used for discussion or as a quick in-class 'test' for students to assess their own learning. Alternatively, students could discuss in small groups.

Problems

Problem 19. Prepare a classified balance sheet

Bay Company
Balance sheet
For the year ended 30 June

Assets		
Current assets		
Cash	$ 8 000	
Accounts receivable	12 000	
Other current assets	4 000	
Total current assets		24 000
Non-current assets		
Land	$20 000	
Building	70 000	
Equipment	41 000	
Total non-current assets		131 000
Total assets		$155 000
Liabilities and shareholders' equity		
Current liabilities		
Accounts payable	$16 000	
Interest payable	14 000	
Total current liabilities		30 000
Bonds payable	40 000	
Total liabilities		70 000
Shareholders' equity		
Ordinary shares (contributed capital)	35 000	
Retained earnings	50 000	
Total shareholders' equity		85 000
Total liabilities and shareholders' equity		$155 000

Teaching tip

A balance sheet groups together accounts of a similar nature and reports them in a few major classifications which help when reviewing and analysing a company. Assets are generally grouped into three categories on a balance sheet: current assets, non-current assets and intangible assets. Liabilities are generally grouped as current liabilities and non-current liabilities. Shareholders' equity is contributed capital and retained earnings.

Problem 20. Prepare a multi-step income statement

Kassem Corporation
Income statement
For the year ended 30 June

Sales revenue	$130 000	
Cost of sales	80 000	
Gross profit		$ 50 000
Expense (selling)		$ 13 000
Other revenue and expenses		
Interest revenue	$ 16 500	
Interest expense	(15 000)	1 500
Income before taxes		$ 38 500
Income tax expense		(12 850)
Net profit (loss) or income after tax		$ 25 650

Interest expense may be placed up with 'Expense (selling)', and 'Interest revenue' could be placed higher – but it should be below the gross profit line.

Teaching tip

An income statement calculates income by grouping together certain revenues and expenses and calculating several subtotals of income. Sales revenue is listed first. Listed next is cost of sales. Subtracting cost of sales from net sales then yields the first subtotal of income, gross profit. After gross profit is reported, expenses are listed, and then other revenues (and expenses). Finally, less tax equals net income (profit or loss) is determined.

Problem 21. Prepare and analyse the classified balance sheet

a.

Matolcsy Ltd
Comparative balance sheet
31 December 2015 and 31 December 2016

	2016	2015
Assets		
Current assets		
Cash	$ 15 000	25 635
Accounts receivable	50 000	85 065
Inventory	25 650	27 270
Office supplies	12 500	13 500
Prepaid rent	10 150	12 275
Total current assets	$113 300	$163 745
Non-current assets		
Buildings	$240 000	300 000
Motor vehicles	24 000	24 000
Land	300 000	200 000
Non-current investments	125 000	100 000
Total non-current assets	689 000	624 000
Intangible assets		
Patents	$6 000	$6 000
Total assets	$808 300	$793 745
Liabilities and shareholders' equity		
Current liabilities		
Accounts payable	$ 75 500	$ 35 035
Notes payable, due 31/12/17	100 000	–
Salaries and wages payable	35 500	33 560
Interest payable	13 755	7 550
Income taxes payable	12 250	16 465
Total current liabilities	$237 005	$ 92 610
Non-current liabilities		
Notes payable, due 31/12/17		$100 000
Bonds payable, due 30/06/26	125 000	25 000

Total non-current liabilities	$125 000	$125 000
Total liabilities	$362 005	$217 610
Shareholders' equity		
Ordinary shares	$100 000	$ 80 000
Additional paid-in capital	200 000	190 000
Retained earnings	146 295	306 135
Total shareholders' equity	$446 295	$576 135
Total liabilities and shareholders' equity	$808 300	$793 745

b.

Horizontal analysis:

Cash	41.5% decrease	[($15 000 – 25 635)/$25 635]
Accounts receivable	41.2% decrease	[($50 000 – 85 065)/$85 065]
Inventory	5.9% decrease	[($25 650 – 27 270)/$27 270]
Office supplies	7.4% decrease	[($12 500 – 13 500)/$13 500]
Prepaid rent	17.3% decrease	[($10 150 – 12 275)/$12 275]
Total current assets	30.8% decrease	[($113 300 – 163 745)/$163 745]
Non-current investments	25% increase	[($125 000 – 100 000)/$100 000]
Land	50% increase	[($300 000 – 200 000)/$200 000]
Buildings	20% decrease	[($240 000 – 300 000)/$300 000]
Motor vehicles	No change	
Total non-current assets	10.4% increase	[($689 000 – 624 000)/$624 000]
Patents	No change	
Total assets	1.8% increase	[($808 300 – 793 745)/$793 745]
Accounts payable	115% increase	[($75 500 – 35 035)/$35 035]
Notes payable	No change	
Salaries and wages payable	5.8% increase	[($35 500 – 33 560)/$33 560]
Interest payable	82.2% increase	[($13 755 – 7 550)/$7 550]
Income taxes payable	25.6% decrease	[($12 250 – 16 465)/$16 465]
Total current liabilities	156% increase	[($237 005 – 92 610)/$92 610]
Bonds payable	400% increase	[($125 000 – 25 000)/$25 000]

Total liabilities	66.4% increase	[($362 005 – 217 610)/$217 610]
Ordinary shares	20% increase	[($100 000 – 80 000)/$80 000]
Paid-in capital	5% increase	[($200 000 – 190 000)/$190 000]
Retained earnings	52.2% decrease	[($146 295 – 306 135)/$306 135]
Total shareholders' equity	22.5% decrease	[($446 295 – 576 135)/$576 135]
Total liabilities and equity	1.8% increase	[($808 300 – 793 745)/$793 745]

Vertical analysis:

Cash/Total assets	$15 000/$808 300 = 1.9%
Accounts receivable/Total assets	$50 000/$808 300 = 6.2%
Inventory/Total assets	$25 650/$808 300 = 3.2%
Office supplies/Total assets	$12 500/$808 300 = 1.5%
Prepaid rent/Total assets	$10 150/$808 300 = 1.3%
Total current assets/Total assets	$113 300/$808 300 = 14%
Non-current investments/Total assets	$125 000/$808 300 = 15.5%
Land/Total assets	$300 000/$808 300 = 37.1%
Buildings/Total assets	$240 000/$808 300 = 29.7%
Motor vehicles/Total assets	$24 000/$808 300 = 3.0%
Total non-current assets/Total assets	$689 000/$808 300 = 85.3%
Patents/Total assets	$6 000/$808 300 = 0.7%
Accounts payable/Total assets	$75 500/$808 300 = 9.3%
Notes payable/Total assets	$100 000/$808 300 = 12.4%
Salaries and wages payable/Total assets	$35 500/$808 300 = 4.4%
Interest payable/Total assets	$13 755/$808 300 = 1.7%
Income tax payable/Total assets	$12 250/$808 300 = 1.5%
Total current liabilities/Total assets	$237 005/$808 300 = 29.3%
Bonds payable/Total assets	$125 000/$808 300 = 15.5%
Total liabilities/Total assets	$362 005/$808 300 = 44.8%

Contributed capital/Total assets	\$100 000/\$808 300 = 12.4%
Paid-in-capital/Total assets	\$200 000/\$808 300 = 24.7%
Retained earnings/Total assets	\$146 295/\$808 300 = 18.1%
Total shareholders' equity/Total assets	\$446 295/\$808 300 = 55.2%

Horizontal analysis shows that total assets were stable, with only a 1.8 per cent increase from 2015 to 2016. However, there were some significant changes within assets: current assets decreased 30.8 per cent, non-current investments increased 25 per cent and land increased 50 per cent. It appears that the company used its cash and collected receivables to purchase additional investments and land. Total liabilities increased over 66 per cent, with most of that coming from an increase in bonds (400 per cent) and a more than doubling of accounts payable. Equity was significantly lower due to a significant drop in retained earnings. Overall, horizontal analysis shows a shift to more non-current assets and a shift from equity to liabilities. Thus, investors and creditors may be concerned with the company's ability to pay its obligations in the future, especially in the short term. Vertical analysis confirms this potential concern, as it shows a much higher percentage of liabilities to assets and a much lower percentage of equity to assets in 2016 than 2015.

c. Yes, it does. If bonds payable is \$0 and retained earnings is \$271 295, then the company has not shifted as much to liabilities from equity. With the new numbers, liabilities would only have grown by 8.9 per cent [(\$237 005 – 217 610)/\$217 610], while retained earnings would have decreased by only 11.4 per cent [(\$271 295 – 306 135)/\$306 135]. Thus, the change in the way in which the company finances its assets is not as drastically different across the years. As a result, investors and creditors would not be as concerned about the company's ability to satisfy its obligations.

Teaching tip

Since financial statements communicate economic information about a company to interested parties, certain comparisons can provide a more thorough understanding of a company's financial activities. Horizontal analysis is a method of analysing a company's account balances over time and is very useful in identifying trends in a company. Vertical analysis is a method of comparing a company's account balances within one year.

Also note the note payable changes in 2016 to become a current liability because it is due within one year.

Helpful hint for students

Using an Excel spreadsheet, horizontal analysis is calculated as follows. First, the dollar change in an account is determined. This is defined as the current year balance less the prior year balance. The dollar change is then divided by the prior year balance to yield a percentage change. Vertical analysis is calculated by dividing each account balance by a base account, yielding a percentage. The base account is total assets for balance sheet accounts, and net sales or revenues for income statement accounts.

Problem 22. Multi-step income statement and classified balance sheet

Wells Company
Income statement
Year ending December 31 2018

Sales		$78 480
Cost of sales		41 250
Gross profit		$37 230
Other expenses:		
Electricity	$4 180	
Advertising	4 200	
Insurance	4 680	
Salaries	17 420	
Total expenses		30 480
Profit before tax		$6 750
Income tax expense		3 260
Net profit (income) after tax		$3490

Wells Company
Balance sheet
As at December 31 2018

ASSETS

Current assets:	
Cash	$16 080
Accounts receivable	8 470
Prepaid insurance	5 970
Total current assets	30 520

Equipment, net		45 420
Total assets		$75 940

LIABILITIES AND SHAREHOLDERS' EQUITY

Current liabilities:		
Accounts payable		$15 780
Salaries payable		5 210
Total current liabilities		$20 990
Non-current liabilities		9 920
Total liabilities		$30 910
Shareholders' equity:		
Contributed capital	$15 400	
Retained earnings	29 630	
Total shareholders' equity		45 030
Total liabilities and shareholders' equity		$75 940

Note: Retained earnings for the balance sheet is calculated as follows:

Retained earnings, Jan 1 + Net income – Dividends

= $28 450 + $3 490 – $2 310 = $29 630

Problem 23. Prepare and analyse the classified balance sheet

a.

Bugeja Limited

Comparative income statements

For the years ending 31 Dec. 2017 and 31 Dec. 2016

	2017	**2016**
Sales revenue	$95 950	$106 569
Cost of sales	48 596	58 896
Gross profit	$47 354	$ 47 673
Operating expenses		
Advertising	$ 2 200	$ 3 200
Commissions	4 879	6 010
Depreciation	5 565	6 589
Insurance	4 897	5 236
Salaries and wages	19 320	21 012

Supplies	1 654	2 106
Rent	7 634	7 856
Interest expense	$ 2 584	$ 2 695
Other revenue		
Interest revenue	4 287	4 189
Profits (income) before tax	$ 2 908	$ (2 842)
Income tax expense	2 217	2 684
Profit (loss)	$ 691	$ (5 526)

b.

Horizontal analysis:

Sales revenue	10% decrease	[($95 950 – 106 569)/$106 569]
Cost of sales	17.5% decrease	[($48 569 – 58 896)/$58 896]
Gross profit	0.67 % decrease	[($47 354 – 47 673)/$47 673]
Advertising expense	31.3% decrease	[($2 200 – 3 200)/$3 200]
Commissions expense	18.8% decrease	[($4 879 – 6 010)/$6 010]
Depreciation expense	15.5% decrease	[($5 565 – 6 589)/$6 589]
Insurance expense	6.5% decrease	[($4 897 – 5 236)/$5 236]
Rent expense	2.8% decrease	[($7 634 – 7 856)/$7 856]
Salaries and wages	8.1% decrease	[($19 320 – 21 012)/$21 012]
Supplies expense	21.5% decrease	[($1 654 – 2 106)/$2 106]
Interest expense	4.1% decrease	[($2 584 – 2 695)/$2 695]
Interest revenue	2.3% increase	[($4 287 – 4 189)/$4 189]
Profit (income) before tax	202% increase	[($2 908 – (–2 842))/$2 842]
Income tax expense	17.4% decrease	[($2 217 – 2 684)/$2 684]
Net profit (loss)	113% increase	[($691 – (–5 526))/$5 526]

Vertical analysis: 2017 listed first, 2016 listed second.

Cost of sales/Sales revenue	2017: $48 596/$95 950 = 50.6%
	2016: $58 896/$106 569 = 55.3%
Gross profit/Sales revenue	2017: $47 354/$95 950 = 49.4%
	2016: $47 673/$106 569 = 44.7%
Advertising/Sales revenue	2017: $2 200/$95 950 = 2.3%
	2016: $3 200/$106 569 = 3.0%

Commissions/Sales revenue	2017: \$4 879/\$95 950 = 5.1%
	2016: \$6 010/\$106 569 = 5.6%
Depreciation expense/Sales revenue	2017: \$5 565/\$95 950 = 5.8%
	2016: \$6 589/\$106 569 = 6.2%
Insurance/Sales revenue	2017: \$4 897/\$95 950 = 5.1%
	2016: \$5 236/\$106 569 = 4.9%
Rent/Sales revenue	2017: \$7 634/\$95 950 = 8.0%
	2016: \$7 856/\$106 569 = 7.4%
Salaries and wages/Sales revenue	2017: \$19 320/\$95 950 = 20.1%
	2016: \$21 012/\$106 569 = 19.7%
Supplies/Sales revenue	2017: \$1 654/\$95 950 = 1.7%
	2016: \$2 106/\$106 569 = 2.0%
Interest expenses/Sales revenue	2017: \$2 584/\$95 950 = 2.7%
	2016: \$2 695/\$106 569 = 2.5%
Interest revenue/Sales revenue	2017: \$4 287/\$95 950 = 4.5%
	2016: \$4 189/\$106 569 = 3.9%
Profits before income tax/Sales revenue	2017: \$2 908/\$95 950 = 3.0%
	2016: (\$2 842)/\$106 569 = –2.7%
Tax expense/Sales revenue	2017: \$2 217/\$95 950 = 2.3%
	2016: \$2 684/\$106 569 = 2.5%
Profit (loss)/Sales revenue	2017: \$691/\$95 950 = 0.72%
	2016: (\$5 526)/\$106 569 = –5.2%

Both sales and cost of sales decreased in 2017, but cost of sales decreased at a greater rate, so gross profit was stable. A decrease in operating expenses helped the company increase operating profit by 128 per cent. Some minor changes in other income and taxes resulted in a 113 per cent increase in profit in 2017. So, although sales were down, decreases in cost of sales and operating expenses allowed the company to increase net income. The company was much more efficient. Vertical analysis confirms this conclusion. Cost of sales consumed only 50 per cent of sales dollars in 2017, compared to 55 per cent in 2016. Operating expenses also consumed a lower percentage of sales.

c. If cost of sales in 2016 was $45 670 and cost of sales in 2017 was $62 470, conclusions about the company would be much different. Instead of improving from a net loss to net income, the company would generate net income of $7 700 in 2016, only to see it fall to a $13 138 net loss in 2017. This drop in income would be caused entirely by the combination of increasing in cost of sales and decreasing sales. Specifically, horizontal analysis would show a 45 per cent decrease in gross profit [($33 480 – 60 899)/$60 899] from 2016 to 2017. This would be extremely concerning to managers, creditors and investors.

Teaching tip

Since financial statements communicate economic information about a company to interested parties, certain comparisons can provide a more thorough understanding of a company's financial activities. Horizontal analysis is a method of analysing a company's account balances over time and is very useful in identifying trends in a company. Vertical analysis is a method of comparing a company's account balances within one year.

Helpful hint for students

Using an Excel spreadsheet, horizontal analysis is calculated as follows. First, the dollar change in an account is determined. This is defined as the current year balance less the prior year balance. The dollar change is then divided by the prior year balance to yield a percentage change. Vertical analysis is calculated by dividing each account balance by a base account, yielding a percentage. The base account is total assets for balance sheet accounts and net sales or revenues for income statement accounts.

Problem 24. Using horizontal and vertical analyses

				Vertical analysis	
	Current year	**Prior year**	**Horizontal analysis**	**Current year**	**Prior year**
Sales	$800 000	$500 000	60.0%	100.0%	100.0%
Cost of sales	300 000	200 000	50.0	37.5	40.0
Gross profit	500 000	300 000	66.7	62.5	60.0
Operating expenses	167 000	130 000	28.5	20.9	26.0
Profits after tax	333 000	170 000	95.9	41.6	34.0
One-time gain	0	180 000	(100.0)	0	36.0

Net income	$333 000	$350000	(4.9)	41.6	70.0

Through horizontal analysis, we see sales grew 60.0% from the prior year, while net income decreased by 4.9%. During the prior year, the company experienced a one-time gain of $180 000. Vertical analysis of this gain yields 36.0%, indicating the gain was a significant part of the prior year's performance. As this gain did not occur again in the current year, net income decreased slightly. However, through horizontal analysis, we see Wakefield Investments experienced a 66.7% increase in gross profit, and a 95.9% increase in operating income. Therefore, profits from continuing operations are growing.

Cases

Case 25. Reading and analysing financial statements

The current analysis of Woolworths is in Chapter 2 of the textbook. This case is mainly designed to force students to look at the annual report in Appendix B in the textbook, and to locate items in each of the financial statements

a. Total current assets are $6 266 100 000 in 2013, and are found in the balance sheet, as are all other items in requirement a. (You may also care to discuss materiality – numbers are shown to the nearest $100 000.)

b. For current assets (7 174.8 – 6 226.1)/6 226.1 = 15.2%, the other horizontal analysis follows exactly the same pattern. Students are likely to have all right or all wrong (total shareholders' equity is (10 552.4 – 9,300.5)/9 300.5 = 13.2%). Should we show the result to more than one decimal place? Would 13.17025% make any difference to the analysis as opposed to 13.2%? We would suggest not.

c. Income items are more complex because they involve three pages of statements (two are given in the Appendix). The figure is not just 'Gross profits'; it is 'Gross profits from continuing operations': $15 761.1 and $16 477.6. Total comprehensive for the period from continuing operations is $2 486.3 and $2 627.2. This may lead to a discussion of the different income numbers.

d. Horizontal analysis would show gross profits of ($16 477.6 - $15 761.1)/15,761.1 = 4.5% and ($2,627.2 - $2,486.3)/$2,486.3 = 5.7%. Again, students are likely to either have it all correct or all incorrect.

Case 26. Research and analysis

The analysis will depend on the year in which the report is accessed. The exercise is useful in guiding students to researching company information on the Internet. It may also be useful in encouraging the use of Excel – as well as demonstrating the ease of downloading a PDF table into Excel and the efficiency of such analysis on Excel.

This analysis may also reflect the state of department stores and a possible contrast with the broader Woolworths/Wesfarmers retail operation.

With David Jones being a fully owned subsidiary of Woolworths South Africa (no relation to 'our' Woolworths), no comparison can be made as to which company's strategy is working best.

Enrichment modules: exercises, problems and cases

Please note: solutions follow at the end of this document.

Exercises

Module.Ex.02.01 Balance sheet terms LO3

The following is a list of balance sheet classifications and descriptions.

1.	Current asset	**a.**	An obligation that is reasonably expected to be satisfied within the normal operations of business
2.	Non-current investment	**b.**	An investment in the ordinary investment shares or bonds of another entity that the company does not intend to sell within one year.
3.	Non-current asset	**c.**	Assets that do not fit into a particular classification of assets (for example, a deferred tax liability).
4.	Intangible asset	**d.**	An obligation that is not expected to be satisfied within one year.
5.	Other asset	**e.**	The portion of equity contributed by

			shareholders through the purchase of shares, including shares and preferred shares.
6.	Current liability	**f.**	Resources that are reasonably expected to be converted to cash or consumed during the normal operations of business.
7.	Non-current liability	**g.**	Tangible resources that are used in the company's operations for more than one year and are not intended for resale.
8.	Contributed capital	**h.**	The profits that a company earns over time and retains in the business.
9.	Retained earnings	**i.**	Resources to be used in the company's operations for more than one year that have no physical substance.

Required
Match each classification with its definition.

Module.Ex.02.02 Balance sheet LO3

A company reports the following accounts on its balance sheet.

Accounts payable	Accounts receivable
Accumulated depreciation	Automobiles
Bonds payable, due in 10 years	Buildings
Contributed capital	Cash
Income taxes payable	Interest payable
Inventory	Land
Non-current investments	Notes payable, due next year
Office supplies	Paid-in (paid-up) capital
Patents	Prepaid rent
Retained earnings	Salaries payable

Required
Identify each account as a current asset, non-current asset, intangible asset, current liability, non-current liability, contributed capital or retained earnings.

Module.Ex.02.03 Prepare a balance sheet LO3

The following information was taken from the 28 February 2017 balance sheet of Best Buy Inc.

	(in millions)
Accounts payable	4 997
Accounts receivable	1 868
Additional paid-in capital	205
Cash and short-term investments	509
Contributed capital	41
Non-current liabilities	2 748
Other current assets	1 062
Other current liabilities	3 438
Other non-current assets	3 460
Property, plant, & equipment	4 174
Retained earnings	4 397
Inventory	4 753

Required

Prepare a balance sheet for Best Buy Inc. at February 28 2017.

Module.Ex.02.04 Income statement LO4

The following income statement items are taken from the records of Ma Ma Group for the year ended 30 June. Prepare an income statement for the year ended 30 June.

Advertising expense	$ 6 210
Commissions expense	3 645
Cost of goods sold	83 910
Depreciation expense	7 610
Income tax expense	2 250
Insurance expense	3 960
Interest expense	4 115
Interest revenue	6 055
Rent expense	11 410
Salaries expense	17 270
Sales revenue	153 010
Supplies expense	5 600

Required

Prepare an income statement for the year ended 30 June.

Module.Ex.02.05 Completing an income statement LO4

The following income statement was provided by Reece Limited.

Reece Limited
Income statement
For the year ended 30 June

Net sales	$ (a)
(b)	96 000
(c)	$ 92 000
Selling expense	(d)
Depreciation expense	11 500
(e)	$ 52 500
Interest revenue	9 200
Interest expense	(f)
(g)	(h)
(i)	14 990
Net income (profit)	$ 28 310

Required

Identify the missing amounts and descriptions.

Module.Ex.02.06 Financial accounting terms LO5, 7

The following are various terms and definitions from financial accounting.

1. Common-size financial statement	**a.** A technique that compares account balances within one year by stating each account balance as a percentage of a base amount.
2. Notes to the financial statements	**b.** Textual and numerical information immediately following the financial statement's disclosing information such as accounting methods used, detail and explanation of account balances and information not recognised in the financial statements.

3.	Management's discussion and analysis	**c.**	A statement in which all accounts have been standardised by the overall size of the company.
4.	Auditor's report	**d.**	A discussion and analysis of the financial activities of the company by the company's management.
5.	Vertical analysis	**e.**	A report, prepared by a certified public accountant for the public shareholder, stating an opinion on whether the financial statements present fairly and in conformity with GAAP the company's financial condition and results of operations and cash flows.
6.	Horizontal analysis	**f.**	A technique that calculates the change in an account balance from one period to the next and expresses that change in both dollar and percentage terms.

Required
Match each term with the appropriate definition.

Module.Ex.02.07 Vertical analysis of the balance sheet LO5

The following items were taken from a recent balance sheet for PepsiCo.

Cash	$ 2 277
Inventory	2 522
Property and equipment	11 663
Accounts payable	2 846
Non-current liabilities	7 858
Total assets	35 994
Total liabilities	23 888
Total equity	12 106

Required

Perform a vertical analysis on the following accounts:

a. Property and equipment
b. Accounts payable
c. Cash

d. Non-current liabilities.

Module.Ex.02.08 Vertical analysis of the income statement LO5

The following items were taken from a recent income statement.

	Current year
Net revenue	$43 251
Cost of sales	20 351
Expenses	15 965
Other income	86
Income before taxes	$ 7 021
Income tax expense	1 879
Profit after tax	$ 5 142

Required

Perform a vertical analysis on each account.

Module.Ex.02.09 Horizontal and vertical analyses LO5

A company provides the following information.

	Current year	**Prior year**
Net revenue	$121 345	$119 872
Accounts receivable	30 192	12 676
Total assets	246 933	250 361

Required

Should the company be concerned about its performance? Use horizontal and vertical analyses to 'prove' why or why not.

Module.Ex.02.10 Statement of changes in equity LO6

A company provides the following account balances for the current year.

	Current year
Retained earnings, 1 Jan.	$ 62 496

Net income	22 133
Dividends	9 500
Contributed capital	20 600
Additional paid-in capital	100 000

Required

Prepare a statement of changes in equity at year-end.

Problems

Module.Prob.02.11 Errors in a balance sheet LO3

The following balance sheet was provided by Austin Corp.

Austin Corp.
Balance sheet
30 June

Cash	$ 12 000	
Equipment	45 000	
Supplies	4 000	
Total current assets		$ 61 000
Property	$107 000	
Patents	32 500	
Total property and equipment		139 500
Contributed capital		14 100
Other current assets		9 200
Total assets		$223 800
Accounts payable	$ 21 300	
Accounts receivable	14 100	
Accumulated depreciation	4 600	
Taxes payable	2 000	
Long–term debt	133 300	
Total liabilities		$175 300
Retained earnings	48 500	
Total shareholders' equity		48 500

Total liabilities and shareholders' equity	$223 800

Required
Prepare a correct balance sheet.

Module.Prob.02.12 Income statement and balance sheet LO3, 4

The following items were taken from the financial statements of Nguyen Limited for the financial year ended 30 June 2017.

Accounts payable	15 780
Accounts receivable	8 470
Accumulated depreciation	23 000
Cash	16 080
Contributed capital	15 400
Cost of sales	41 250
Depreciation expense	5 000
Dividends	2 310
Equipment	68 420
Income tax expense	3 260
Insurance expense	4 680
Non-current liabilities	9 920
Prepaid insurance	5 970
Repair expense	4 200
Retained earnings, 1/7/16	28 450
Salaries expense	12 420
Salaries payable	5 210
Sales revenue	78 420
Electricity expense	4 180

Required
Prepare an income statement for the 2016/17 financial year and a balance sheet at 30 June 2013. Hint: you must calculate ending retained earnings.

Module.Prob.02.13 Horizontal analysis of the income statement LO5

The following items were taken from a recent income statement.

	Current year	**Prior year**
Net revenue	$43 251	$39 474
Cost of sales	20 351	18 038
Selling and administrative expenses	15 965	14 266
Other comprehensive income	86	461
Profits before taxes	7 021	7 631
Income tax expense	1 879	1 973
Total comprehensive income	5 142	5 658

Required
Perform a horizontal analysis on each account. What conclusions can you make about the business?

Module.Prob.02.14 Using horizontal and vertical analyses LO5

The CEO of the business is disappointed that the company was less profitable this year than last year. Comparative income statements for the business are as follows.

	Current year	**Prior year**
Sales	$800 000	$500 000
Cost of sales	300 000	200 000
Gross profit	$500 000	$300 000
Expenses	167 000	130 000
Profits	$333 000	$170 000
Comprehensive income		180 000
Total comprehensive income	$333 000	$350 000

Required
Why was the company's net income lower in the current year? Use horizontal and vertical analyses to show the ways in which the company was more profitable in the current year.

Cases

Module.Case.02.15 Reading and analysing financial statements, research and analysis LO3, 4, 5

Refer to Woolworths annual report contained in Appendix C of the textbook – or, if possible, the company's most recent financial statements

Required

a. Identify the company's current-year and prior-year balances in total current assets, total non-current assets, total assets, total current liabilities, total non-current liabilities, total liabilities and total equity.

b. Conduct horizontal analysis on each account balance in part (a). What overall conclusion can you make about Woolworths from the calculations?

c. Identify the company's current-year and prior-year gross profit, profit before income tax expense, other comprehensive income and total comprehensive income.

d. Conduct horizontal analysis on each account balance in part (c). What overall conclusion can you make about Woolworths from the calculations?

Module.Case.02.16 Communication in accounting LO4, 5

You and some friends have decided to start an investment club. Several of the new members of the club, however, have no knowledge of financial statements, particularly the income statement. They understand that a company must 'make money,' but they get confused when they read an income statement.

Required

Prepare a short memo for current and future members which describes the subtotals of income on income statement.

Enrichment module solutions: exercises, problems and cases

Exercises

Module.Ex.02.01

1. f
2. b
3. g
4. i
5. c
6. a
7. d
8. e
9. h

Module.Ex.02.02

- Current asset – inventory, office supplies, accounts receivable, cash, prepaid rent
- Non-current asset – accumulated depreciation, automobiles, buildings, land, non-current investments
- Intangible asset – patents
- Current liability – accounts payable, income taxes payable, interest payable, notes payable, salaries payable
- Non-current liability – bonds payable
- Contributed capital – ordinary shares, paid-in (paid-up) capital
- Retained earnings – retained earnings

Module.Ex.02.03

Best Buy Inc.
Balance sheet
For the year ended 28 February 2017

Assets	
Current assets	
Cash and short-term investments	$509
Accounts receivable	1 868
Inventory	4 753
Other current assets	1 062
Total current assets	$8 192
Property, plant and equipment	4 174
Other non-current assets	3 460
Total assets	$15 826
Liabilities and shareholders' equity	
Current liabilities	
Accounts payable	$4 997
Other current liabilities	3 438
Total current liabilities	$8 435
Non-current liabilities	2 748
Total liabilities	$11 183
Ordinary shares	$41
Additional paid-in capital	205
Retained earnings	4 397
Total shareholders' equity	$ 4 643
Total liabilities and shareholders' equity	$15 826

Module.Ex.02.04

Ma Ma Group
Income statement
For the year ended 30 June

Sales revenue	$153 010
Cost of goods sold	83 910
Gross margin	$69 100
Less Expenses	
Advertising	$6 210
Commissions	3 645
Depreciation	$7 610
Insurance	3 960
Rent	11 410
Salaries	17 270
Supplies	5 600
Interest expense	4 115
Plus other revenue	
Interest revenue	6 055
Profit (Loss) before income tax	$15 335
Income tax	2 250
Profit after tax	$13 085

Module.Ex.02.05

(a) $188 000 ($96 000 + $92 000)
(b) Cost of goods sold
(c) Gross profit
(d) $28 000 ($92 000 – $11 500 – $52 500)
(e) Profit before interest and tax (but this is only a calculation at this stage – not a concept)
(f) $18 400 ($52 500 – $9 200 – $43 300)
(g) Income before income taxes
(h) $43 300 ($28 310 + $14 990)
(i) Income tax expense

Module.Ex.02.06

1. c
2. b
3. d
4. e
5. a
6. f

Module.Ex.02.07

a. 32.4% ($11 663/$35 994)
b. 7.9% ($2 846/$35 994)
c. 6.3% ($2 277/$35 994)
d. 21.8% ($7 858/$35 994)

Module.Ex.02.08

Net revenue = 100% ($43 251/$43 251)
Cost of sales = 47.1% ($20 351/$43 251)
Expenses = 36.9% ($15 965/$43 251)
Other income = 0.2% ($86/$43 251)
Income before taxes = 16.2% ($7 021/$43 251)
Income tax expense = 4.3% ($1 879/$43 251)
Profits after tax = 11.9% ($5 142/$43 251)

Module.Ex.02.09

	Current year	**Prior year**	**Horizontal analysis**	**Vertical analysis**
Net revenue	$ 121 345	$119 872	1.2%	100.0%
Accounts receivable	30 192	12 676	138.2	12.2
Total assets	246 933	250 361	–1.4	100.0

No, the company should not be concerned about its current performance; horizontal analysis shows revenue grew 1.2% from the prior year. However, accounts receivable more than doubled; the company should evaluate the collectability of total accounts receivable. But analysis proves little – it shows changes, but not the reason for them or what the future will necessarily bring.

Module.Ex.02.10

Statement of changes in equity
Year end

	Equity	Retained earnings	Total
Balance at beginning year	20 600	62 496	83 096
Additional shares issued	100 000		
Profit		22 133	
Dividends		(9 500)	
Balance at year-end	120 600	75 129	195 729

Problems

Module.Prob.02.11

Austin Corp.
Balance sheet
At 30 June

Assets		
Current assets		
Cash	$ 12 000	
Accounts receivable	14 100	
Supplies	4 000	
Other current assets	9 200	
Total current assets	$ 39 300	
Total property and equipment, net	147 400	
Patents	32 500	
Total assets		$219 200

Liabilities and shareholders' equity

Current liabilities		
Accounts payable	$ 21 300	
Taxes payable	2 000	
Total current liabilities	23 300	
Non-current debt	133 300	
Total liabilities		$156 600
Shareholders' equity		
Retained earnings	48 500	
Contributed capital	14 100	
Total shareholders' equity		62 600
Total liabilities and shareholders' equity		$219 200

Module.Prob.02.12

Nguyen Limited
Income statement
For the year ended 30 June 2017

Sales revenue		$78 480
Cost of sales		41 250
Gross profit		$37 230
Less expenses:		
Electricity	$4 180	
Repair	4 200	
Depreciation	5 000	
Insurance	4 680	
Salaries	12 420	
Total expenses		30 480
Profit before tax		$6 750
Income tax expense		3 260
Net profit		$3 490

Nguyen Limited
Balance sheet
At 30 June 2017

Assets		
Current assets:		
Cash	16 080	
Accounts receivable	8 470	
Prepaid insurance	5 970	
Total current assets		30 520
Non-current assets:		
Equipment	68 420	
Less: Accumulated depreciation	(23 000)	45 420
Total assets		75 940
Liabilities and shareholders' equity		
Current liabilities:		
Accounts payable	$15 780	
Salaries payable	5 210	
Total current liabilities		$20 990
Non-current liabilities		9 920
Total liabilities		$30 910
Shareholders' equity:		
Contributed capital		$ 15 400
Retained earnings		29 630
Total shareholders' equity		45 030
Total liabilities and shareholders' equity		$75 940

Module.Prob.02.13

	Current year	Prior year	$ Analysis	% Analysis
Net revenue	$43 251	$39 474	$3 777	9.6%
Cost of sales	20 351	18 038	2 313	12.8
Expenses	15 965	14 266	1 699	11.9
Comprehensive income	86	461	(375)	–81.3

Profits before taxes	7 021	7 631	(610)	–8.0
Income tax expense	1 879	1 973	(94)	–4.8
Total comprehensive income	5 142	5 658	(516)	–9.1

Although sales for the business are increasing, profits before tax has decreased from the prior year. This is explained by the almost 13 per cent increase in cost of goods sold and 12 per cent increase in expenses.

Module.Prob.02.14

				Vertical analysis	
	Current year	**Prior year**	**Horizontal analysis**	**Current year**	**Prior year**
Net revenue	$800 000	$500 000	60.0%	100.0%	100.0%
Cost of sales	300 000	200 000	50.0	37.5	40.0
Gross profit	500 000	300 000	66.7	62.5	60.0
Operating expenses	167 000	130 000	28.5	20.9	26.0
Profits	333 000	170 000	95.9	41.6	34.0
Comprehensive Income	0	180 000	-100.0	0	36.0
Total comp. Income	$333 000	$350 000	-4.9	41.6	70.0

Horizontal analysis shows sales grew 60% from the prior year, while net income decreased by 4.9%. During the prior year, the company experienced a one-time gain of $180 000. Vertical analysis of this gain yields 36.0%, indicating the gain was a significant part of the prior year's performance. As this gain did not occur again in the current year, net income decreased slightly. However, through horizontal analysis, we see the business experienced a 66.7% increase in gross profit, and a 95.9% increase in profits.

Cases

Module.Case.02.15

- Woolworths' 2014 results are analysed throughout the textbook. The analysis of current results, and possibly a comparison with the 2011 results, are strongly suggested.
- In 2014, profits (comprehensive income) rose substantially. Has this trend continued? Has Woolworths met the challenge of online retailing?
- In Chapter 13, some of Woolworths' pre-GFC results are compared with its 2014

results.

- Analysis also provides the opportunity to use Excel spreadsheets to conduct vertical and horizontal analyses quickly and accurately.

Module.Case.02.16

To: Current and future investment club members

From: Student

Subject: Explanation of the income statement

The income statement shows a company's revenues and expenses over a period of time. To provide as much information as possible, many companies prepare income statements. An income statement calculates and reports several subtotals of income.

The first subtotal is gross profit. Gross profit is the profit generated when considering only the sales price and the cost of the inventory sold. It is calculated as sales less cost of sales. Readers examine gross profit to evaluate a company's ability to profit from the markup on its products.

The second subtotal is profit (or losses) before tax. Profit before tax measures a company's profitability when considering all expenses associated with operations. It is calculated by subtracting operating expenses such as advertising and salaries from gross profit. Readers examine these profits to evaluate a company's ability to profit from its normal operations.

The third subtotal is profits or loss after tax. This subtotal subtracts income tax from the profit or loss.

The final subtotal is total comprehensive income after tax, which includes gains and losses that are not recognised as usual revenue and expense items.