

Accounting Units 1 & 2

Chapter 3 Business ownership

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Chapter 3 Business ownership — 3A Establishing a business: resources, planning and operations

Theory

Before an individual commits their money, time and effort to a business, they weigh up a range of factors: *why* they want to be in business, *what* they will need to get it going, *how much* it will cost, and *whether* the idea is likely to work. **Establishing a business** means making the decision to start, and then assembling everything the business needs to begin trading. The VCE Accounting Study Design (2025–2029) opens Unit 1 by observing that individuals should consider a range of factors before committing to a business venture, and its first two key knowledge points are the **reasons** for establishing a business and the **resources** required to establish one — because the choices made at the establishment stage shape every accounting report that follows. This section examines four things in turn: the **reasons** for establishing a business, the **resources** it requires, the **financial planning** that tests whether the venture is viable, and the **nature of business operations**. Throughout, the recurring theme is the **role of accounting** — the information an owner uses to decide whether to establish a business and how to run it.

Reasons for establishing a business

People go into business for a mix of **financial** and **non-financial** reasons. Understanding them matters because the owner's reasons set the **goals** of the business, and those goals decide how its success will later be judged. Common reasons include:

- **to earn a profit and a financial return** — the owner expects the business to generate income greater than the costs of running it, providing both a livelihood and a return on the funds invested;
- **independence** — “being your own boss” — the owner makes the decisions rather than working under an employer;
- **to pursue a passion, skill or interest** — turning an ability or an interest (a trade, cooking, design, sport) into a source of income;
- **to meet a market need or seize an opportunity** — the owner identifies a gap in the market or an unmet customer need that they believe they can satisfy;
- **flexibility and lifestyle** — greater control over working hours and location; and
- **to build wealth** — over time the business itself becomes a valuable asset, built up through its reputation and its customer base, that can eventually be sold.

Rarely is there a single reason. A person who leaves a salaried job to open a service business may be driven mostly by independence and a passion for the work, but they still need the business to earn enough profit to survive. Because reasons differ, so does the measure of success: a lifestyle-focused owner may be content with a modest, steady income, while a growth-focused owner judges the business against rising profit and expansion.

Resources required to establish a business

A **resource** is anything the business needs to operate. The resources required to establish and run a business fall into three categories: **financial resources**, **physical resources** and **human resources**.

Financial resources. Every business needs **finance** — money to acquire its non-current assets, to fund the establishment period before revenue starts to flow, and to meet ongoing operating costs. Finance is classified according to its **source**:

- **Internally sourced finance** comes from *within* the business or from the owner's own funds. Its main forms are the **capital** the owner contributes (cash, and sometimes non-current assets such as a vehicle or tools brought into the business) and, once the business is trading, **retained profits** — profit kept in the business rather than taken out as **drawings**. Internal finance creates **no liability**, carries **no interest** and does not have to be repaid; but it is **limited** by the owner's own wealth and by how much profit the business is able to keep.
- **Externally sourced finance** is obtained from *outside* the business and its owner. Common forms include a **loan** from a bank (a **term loan**, or a **mortgage** secured over property), a bank **overdraft**, **trade credit** from suppliers (receiving goods now and paying later — recorded as **Accounts Payable**), and **leasing** of equipment or vehicles. External finance lets the business raise more than the owner could provide alone, but it usually

creates a **liability**, must be **repaid**, and commonly carries **interest** — an ongoing expense that adds to the business's financial risk. (The balance a business strikes between external borrowing and internal equity, and the risk it creates, is examined in Chapter 4.)

Physical resources. These are the tangible things the business needs to operate: **premises** (owned land and buildings, or a leased shopfront or office), **equipment**, **motor vehicles**, **furniture and fittings**, tools and information technology. Most are **non-current assets** — resources the business controls and will use to earn revenue over several future reporting periods. For each item the owner must decide whether to **buy** it outright (using finance now) or to **lease** it (spreading the cost over time). A trading business also needs **inventory** to sell; a service business instead needs the equipment and materials that its people use to deliver the service.

Human resources. These are the **people** whose labour, skills, knowledge and experience run the business — the owner's own effort, plus any **employees** who are recruited, trained and paid **wages**. For a **service business**, whose “product” is the service its people perform, human resources are often the single most important resource, because the quality of the service depends directly on the expertise of the people delivering it.

Planning the finances of a new business

Deciding to establish a business is itself a decision that accounting information should inform. Before committing their funds, an owner works through, in advance, what the business will need, what it will cost, where the finance will come from and whether the expected revenue will cover the costs — a **feasibility investigation** of the business venture. Three questions sit at the heart of that investigation, and all three are answered with accounting information:

- **What will it cost to establish the business?** The owner estimates the **start-up costs** — the non-current assets to be acquired, the materials or inventory needed to begin, and the cash required to meet operating costs during the establishment period, *before* revenue starts to flow.
- **Where will the finance come from?** The owner decides the mix of **internally** and **externally sourced finance**, and checks that the business can meet the repayments and interest on any borrowing.
- **Is the venture likely to be viable?** The owner prepares **budgeted** (projected) reports — a **Budgeted Cash Flow Statement** and a **Budgeted Income Statement** (Chapter 17) — which estimate the cash the business will hold and the profit it will earn *before a single transaction takes place*.

Budgeted reports are the point at which accounting is used most directly at the establishment stage, because they turn the owner's intentions into dollar figures that can actually be assessed. They serve the owner, who can see whether the idea is worth pursuing while it still costs nothing to abandon, and they serve anyone being asked to provide finance. A lender assessing a loan application will normally want to see projected figures of this kind, alongside the security offered, the owner's own contribution and any trading record — owners commonly set the projections out for the lender in a written business plan. (Security and the owner's stake can matter as much as the projections: a lender may approve finance that is well secured over property without a formal plan, and may decline an application that comes with a polished one.)

Planning is not a one-off task completed at establishment. The budgeted figures become the **benchmark** against which the business's actual results are later compared, so the same reports that justified starting the business go on to help the owner judge whether it is succeeding.

The nature of business operations

Once established, a business carries out **business operations** — the ongoing, day-to-day activities through which it uses its resources to provide goods or services to customers and earn revenue. In essence, operations **transform inputs into outputs**: the business combines its financial, physical and human resources (the inputs) to produce the goods or services (the outputs) that customers pay for.

The *nature* of a business's operations depends on **what it provides**:

- A **service business** — the focus of Unit 1 — earns revenue by **performing a service** for its customers (for example plumbing, hairdressing, tutoring or web design). It does **not** buy and resell inventory; its main resources are its **human resources** and the equipment they use, and its revenue is usually described as **fees**.

- A **trading business** — the focus of Unit 2 — earns revenue by **buying inventory and reselling it** to customers at a higher price. Its operations centre on managing inventory, its revenue is **sales**, and its largest expense is the **cost of sales**.

It is useful to separate the once-only **establishment** phase — raising finance, acquiring non-current assets and setting up — from the continuing **operations** phase that follows. The nature of the operations decides which resources matter most and which accounting reports are most useful, and every operating activity generates the transactions that the accounting system records and later reports on.

The role of accounting in establishing and operating a business

Accounting supports the owner at **both** stages. When **establishing** the business, accounting provides the **budgeted** figures — the start-up costs, the required finance and the projected profit — that help the owner and the lender decide whether to proceed. Once the business is **operating**, accounting records the day-to-day transactions and reports them so the owner can make **operational decisions** (such as pricing, spending and staffing) and outside parties can make **investment decisions**. This is the whole purpose captured in the Unit 1 outcome, which asks students to *describe the resources required to establish and operate a business, and select and use accounting reports and other information to discuss the success or otherwise of the business*.

Ethical considerations. The choices an owner makes when establishing and operating a business have an **ethical** dimension as well as a financial one, and the two are linked because ethical choices flow through to the reports. Sourcing **physical resources** from suppliers who use fair labour and sustainable materials, treating **human resources** fairly through safe conditions and reasonable **wages**, and honouring obligations to those who provide **externally sourced finance** all affect the business's reputation and its long-term viability. Many of these choices **cost more in the short term** — sustainable materials or above-award wages raise expenses and so reduce the profit reported in the Income Statement — yet they may protect the business's reputation, customer loyalty and staff retention, supporting greater profit over the longer term. A distinct ethical obligation arises in **planning**: the **projected** figures an owner presents to a bank must be an **honest, faithful representation** of the business's likely performance. Deliberately overstating projected profit to secure a **loan** may win finance in the short run, but it misleads the lender, exposes the owner to the consequences when the real reports fall short, and breaches the integrity expected of anyone presenting accounting information. Ethical decision-making therefore weighs financial, social and environmental factors together, and accepts that the most profitable choice in the current period is not always the right one.

Worked model. Marlow is establishing *Cedar & Vine Gardens*, a sole-proprietor **service business** that will provide garden design and maintenance. Her **reasons** are a passion for horticulture and a wish to be independent, but she needs the business to earn a profit to replace her salary. She estimates she needs \$48 000 to start: she contributes \$30 000 of her own savings as **capital** (internally sourced finance) and arranges an \$18 000 bank **loan** (externally sourced finance) to buy a used ute and equipment. Her **physical resources** are the ute, mowers and hand tools; her **human resources** are her own labour plus one part-time employee. Before applying, she prepares a **start-up budget** and **budgeted** cash flows, which the bank asks to see when assessing her loan application. Her ongoing **operations** consist of quoting jobs, performing the garden work and invoicing customers for **fees**. The \$18 000 loan creates a **liability** that must be repaid with interest, whereas the \$30 000 capital does not — a difference that will show up clearly in her first Balance Sheet.

Worked examples (scaffolded)

Example 1 — classify the resources required to establish a service business

Priya is establishing *Fernbrook Tutoring*, a sole-proprietor service business. To start, she needs: a leased office room, three laptops and a printer, \$12 000 of her own savings to put into the business, a \$6 000 bank loan, and two part-time tutors she will employ. Classify each item Priya needs under the correct type of resource, and identify the source of each item of finance.

Working	Comment
Name the three resource types: financial, physical and human resources.	Always state the framework before sorting the items into it.
Physical resources: the leased office room, the three laptops and the printer.	Tangible items the business uses to operate; most are non-current assets (the laptops and printer).

Working	Comment
Human resources: the two part-time tutors (and Priya's own labour).	The people whose skills and labour deliver the tutoring service — critical for a service business.
Financial resources: the \$12 000 savings and the \$6 000 loan.	Both are <i>finance</i> ; they must then be classified by source .
Source of the finance: the \$12 000 savings is internally sourced (the owner's capital); the \$6 000 loan is externally sourced .	Internal = from the owner's own funds; external = from outside the business and owner.
∴ physical = office, laptops, printer; human = the two tutors; financial = \$12 000 internal capital and a \$6 000 external loan.	

Example 2 — distinguish internally from externally sourced finance

To establish *Harbour Point Physiotherapy* (a service business), Sam needs \$50 000. He contributes \$35 000 of his own savings and borrows the remaining \$15 000 from a bank. Distinguish between the two sources of finance Sam is using, and state one advantage of each.

Working	Comment
Identify the internal source: the \$35 000 of Sam's own savings is internally sourced finance — his capital contribution.	Internal finance comes from the owner's own funds (or later, retained profits).
Identify the external source: the \$15 000 bank borrowing is externally sourced finance — a loan .	External finance is raised from outside the business and its owner.
Distinguish them: internal finance is provided by the owner and creates no liability, interest or repayment ; external finance comes from an outside party and creates a liability that must be repaid, usually with interest .	The distinction is the heart of an “explain the difference” answer.
Advantage of internal: no interest cost and no repayment obligation, so lower financial risk.	Internal finance keeps the business's commitments low.
Advantage of external: lets Sam raise more than his own \$35 000, so he can establish a larger or better-equipped business than his savings alone would allow.	External finance overcomes the limit of the owner's own wealth.

∴ the \$35 000 is internal (capital) and the \$15 000 is external (a loan); internal avoids interest and repayment, while external lets the business raise more than the owner could provide alone.

Worked examples (unscaffolded)

Example 3 — reasons for establishing a business and the purpose of budgeted reports

Ravi is thinking of leaving his job as an employed electrician to establish his own electrical service business. Explain **two** reasons he might have for establishing the business, and explain why he should prepare **budgeted reports** before he applies to a bank for finance.

Ravi's reasons are likely to be a mix of financial and non-financial motives. First, **independence** — by establishing his own business he becomes his **own boss**, choosing which jobs to take and how to run the work, rather than following an employer's instructions. Second, the prospect of a **greater financial return** — as the owner he keeps the **profit** the business earns rather than a fixed wage, so a successful business can reward him with more than his current salary (while also carrying the risk of earning less). He should prepare **budgeted reports** first because they let him **test whether the idea is viable** — estimating his **start-up costs**, the finance he must raise, and the **projected** cash flows and profit of his first year — while it still costs him nothing to abandon the idea. They also serve the bank: a lender assessing the application will normally want projected figures showing whether the business can generate enough cash to **repay the finance** with interest. ∴ likely reasons are independence and a higher financial return, and budgeted reports both test viability before Ravi commits his funds and give the lender the evidence it needs to assess his application.

Example 4 — distinguish the operations of a service business from those of a trading business

Riverside Cleaning provides commercial cleaning services, while *Riverside Supplies* buys and resells cleaning products. Distinguish between the **nature of the operations** of the two businesses, and state the term used for the main revenue each one earns.

Both businesses use resources to earn revenue, but the **nature of their operations** differs according to *what they provide*. *Riverside Cleaning* is a **service business**: its operations consist of **performing a service** — sending its staff and equipment to clean customers' premises. It does not buy and resell goods, its most important resource is its **human resources**, and the revenue it earns is described as **fees**. *Riverside Supplies* is a **trading business**: its operations consist of **buying inventory** (cleaning products) and **reselling** it to customers at a higher price. Its operations centre on managing inventory, the revenue it earns is called **sales**, and its largest expense is the **cost of sales**. ∴ the service business earns **fees** by performing services, whereas the trading business earns **sales** by buying and reselling inventory.

Practice questions — scaffolded

Question 1

Tessa is considering establishing a mobile dog-grooming service business.

- Define what it means to **establish a business**.
- Identify **one financial** and **one non-financial** reason Tessa might have for establishing the business.
- Explain how an owner's reasons for establishing a business can affect the way its success is later judged.

Question 2

To establish *Stoneleigh Web Design* (a service business), the owner needs the following: a leased studio, two computers, \$20 000 of the owner's own savings, a \$5 000 bank loan, and one employed designer.

- State the **three** types of resource a business requires.
- Classify each of the five items above under the correct type of resource.
- For the two items of finance, identify whether each is **internally** or **externally** sourced.

Question 3

Alderway Consulting is being established with \$40 000 of the owner's capital and a \$25 000 bank loan.

- Define **internally sourced finance** and **externally sourced finance**.
- Classify the \$40 000 and the \$25 000 under the correct source of finance.
- State **one** advantage and **one** disadvantage of using the \$25 000 external finance rather than contributing more of the owner's own funds.

Question 4

Before applying to a bank for finance, the owner of *Brookvale Tutoring* (a service business) plans the establishment of the business and prepares budgeted reports for its first year.

- Explain what is meant by a **budgeted** accounting report.
- Identify **three** estimates the owner must make when planning the establishment of the business.
- Explain how budgeted reports help the owner, and a bank considering the loan, decide whether to proceed.

Question 5

Meadowlark Catering is a service business that provides catering for events.

- Define **business operations**.
- Distinguish between the operations of a **service business** and those of a **trading business**.

- c. State the term used for the main revenue earned by a service business.

Question 6

To operate, *Kingsford Plumbing* (a service business) needs a work van, a set of tools, and two qualified plumbers.

- Identify which of these items are **physical resources** and which are **human resources**.
- Explain why **human resources** are often the most important resource for a service business.
- Explain the decision the owner must make between **buying** and **leasing** the work van.

Practice questions — unscaffolded

Question 7

Explain **two** reasons, one financial and one non-financial, why an individual might establish their own service business rather than remain an employee.

Question 8

Describe the **three** types of resource required to establish a business, giving an original example of each for a service business of your choice.

Question 9

Distinguish between **internally sourced finance** and **externally sourced finance**, and state one advantage of each.

Question 10

The owner of *Larkspur Design* contributes \$30 000 of their own savings as capital and takes out a \$20 000 bank loan. Explain which of these two amounts creates a **liability** for the business, and why.

Question 11

Explain how **trade credit** from a supplier is a form of **externally sourced finance**, and identify the account in which the amount owing is recorded.

Question 12

Explain the choice an owner faces between **buying** and **leasing** a major physical resource such as a delivery vehicle, referring to the effect on the business's finance.

Question 13

Explain why the **human resources** of a service business are so important to the quality of the service it provides, using an original example.

Question 14

Explain how accounting information helps an owner decide **whether** to establish a business at all, and identify **two** estimates the owner would rely on in making that decision.

Question 15

Explain how a **Budgeted Cash Flow Statement** and a **Budgeted Income Statement** help an owner plan a new business, and explain how these budgets remain useful once the business is trading.

Question 16

Distinguish between the **nature of the operations** of a service business and a trading business, state the term used for the **main revenue** each one earns, and identify the major expense that a **trading** business reports but a service business does not.

Question 17

Distinguish between the **establishment** phase and the **operations** phase of a business, giving one example of an activity that belongs to each phase.

Question 18 (ethics — discuss)

The owner of *Wattlebank Landscaping* (a service business) is establishing the business and must decide between two suppliers of physical resources: a cheaper supplier known to use unsustainable materials, and a dearer supplier that is certified sustainable. Separately, the owner is tempted to overstate the projected profit in the budgeted reports given to the bank to make the loan easier to obtain. Discuss the ethical considerations the owner faces in these two decisions, and explain the financial implications of each choice for the business's reports.

Answers

1.
 - a. deciding to start a business and assembling the resources it needs to begin trading b. financial = profit/income; non-financial = independence / passion / flexibility c. the owner's reasons set the goals, and success is judged against those goals
2.
 - a. financial, physical and human b. studio + two computers = physical; \$20 000 savings + \$5 000 loan = financial; employed designer = human c. \$20 000 = internal, \$5 000 loan = external
3.
 - a. internal = from the owner's own funds/retained profits; external = from outside the business and owner b. \$40 000 = internal (capital); \$25 000 = external (loan) c. advantage: raises more than the owner could alone; disadvantage: creates a liability repayable with interest
4.
 - a. a report of projected (expected) figures, prepared before the transactions occur, rather than a record of what has already happened b. any three: start-up costs; the non-current assets/materials required; the finance required and its sources; projected revenue; projected expenses and profit; projected cash flows c. they estimate profit and cash before trading begins, so the owner can judge whether the venture is viable and the bank whether the business can repay the loan
5.
 - a. the day-to-day activities that use resources to provide goods/services and earn revenue b. service = performs services (no inventory); trading = buys and resells inventory c. fees
6.
 - a. physical = van and tools; human = the two plumbers b. the service is delivered by the people, so its quality depends on their skills c. buy = pay now/own the asset; lease = spread the cost, no large upfront outlay
7. one financial (e.g. profit/higher return) + one non-financial (e.g. independence) reason explained
8. financial, physical, human resources described with an original service-business example of each
9. internal from owner's funds (no liability/interest); external from outside (raises more) — one advantage each
10. the \$20 000 loan creates a liability; the \$30 000 capital does not
11. buying now and paying the supplier later is finance from outside the business; recorded in **Accounts Payable**
12. buy = uses finance now and owns the asset; lease = spreads cost, preserves cash, no ownership
13. human resources deliver the service, so their skill determines its quality — original example
14. budgeted figures test viability before the owner commits funds; any two estimates: start-up costs / finance required / projected revenue / projected expenses and profit / projected cash flows
15. the budgets estimate cash and profit before trading begins, so the owner can judge viability; once trading, they are the benchmark against which actual results are compared
16. service = performs services, revenue = fees; trading = buys and resells inventory, revenue = sales; the trading business reports cost of sales, which a service business does not
17. establishment = one-off set-up (e.g. buying non-current assets); operations = ongoing (e.g. serving customers)
18. See solutions — weigh cost against reputation/sustainability; honest projections; effect on reported expenses/profit and on faithful representation

Fully-worked solutions

Question 1

- a. To **establish a business** is to make the decision to start it and then assemble the resources — finance, physical items and people — that it needs to begin operating.
- b. A **financial** reason is the prospect of earning a **profit** (an income and a return on the funds invested); a **non-financial** reason is **independence** — being her own boss — or a **passion** for working with animals.
- c. An owner's reasons set the **goals** of the business, and success is measured against those goals. If Tessa's main reason is a flexible lifestyle, she may judge the business a success if it provides a modest, steady income on

her chosen hours; if her main reason is financial, she will judge it against growing **profit** instead. The same business could therefore be called successful under one owner's reasons and disappointing under another's.

Question 2

- a. A business requires **financial resources** (finance), **physical resources** and **human resources**.
- b. Physical resources: the **leased studio** and the **two computers**. Financial resources: the **\$20 000** of savings and the **\$5 000** bank loan. Human resources: the **employed designer** (and the owner's own labour).
- c. The **\$20 000** of the owner's savings is **internally sourced** finance (the owner's **capital**); the **\$5 000** bank loan is **externally sourced** finance.

Question 3

- a. **Internally sourced finance** is finance provided from within the business or from the owner's own funds — the owner's **capital** contribution and **retained profits**. **Externally sourced finance** is finance obtained from outside the business and its owner, such as a bank **loan**, an **overdraft** or **trade credit**.
- b. The **\$40 000** is **internally sourced** finance (the owner's capital). The **\$25 000** bank loan is **externally sourced** finance.
- c. **Advantage** of the external \$25 000: it lets the business raise **more** than the owner could provide from their own funds, so it can be established on a larger scale. **Disadvantage**: the loan creates a **liability** that must be **repaid**, usually **with interest**, which is an ongoing expense and increases the business's financial risk.

Question 4

- a. A **budgeted** accounting report sets out the figures a business **expects** for a future period. It is prepared *before* the transactions take place, from the owner's estimates, whereas a historical report records what has **already** happened.
- b. Any three of: the **start-up costs**; the **non-current assets** and materials the business must acquire before it can trade; the **finance required** and the sources it will come from; the **projected revenue** (fees) the business expects to earn; the **projected expenses** and profit; and the **projected cash flows** of the first year.
- c. The budgeted reports turn the owner's intentions into **dollar figures that can be assessed**. For the **owner**, a Budgeted Income Statement shows whether the business is likely to earn a **profit** and a Budgeted Cash Flow Statement whether it will hold enough **cash** to pay its costs during the establishment period — so an unviable idea can be abandoned while doing so still costs nothing. For the **bank**, the same projections indicate whether the business is likely to generate enough cash to **repay the loan** with interest, which is the central question in assessing the application. (Projected figures are only part of what a lender weighs: the **security** offered and the **owner's own contribution** also bear on the decision.)

Question 5

- a. **Business operations** are the ongoing, day-to-day activities through which a business uses its resources to provide goods or services to customers and earn revenue.
- b. A **service business** earns revenue by **performing a service** and does not buy and resell inventory; a **trading business** earns revenue by **buying inventory and reselling** it to customers at a higher price. The service business relies mainly on its human resources, while the trading business must manage inventory.
- c. The main revenue of a service business is described as **fees**.

Question 6

- a. The **work van** and the **set of tools** are **physical resources**; the **two qualified plumbers** are **human resources**.
- b. In a service business the "product" is the **service performed by the people**, so the quality of the service depends directly on the **skills, knowledge and experience** of the human resources. Skilled, reliable plumbers produce good work and satisfied customers; poorly skilled staff would damage the business's reputation regardless of how good its equipment is.

- c. If the owner **buys** the van, the business pays for it now (using finance) and **owns** the asset, which appears as a non-current asset; if the owner **leases** it, the business avoids a large upfront payment and **spreads the cost** over time, preserving cash for other establishment needs but never owning the vehicle. The owner must weigh owning the asset against the cash and finance available at establishment.

Question 7

An individual might establish their own service business for a **financial** reason: as the owner they keep the **profit** the business earns instead of a fixed wage, so a successful business can provide a **greater financial return** than employment (accepting the risk that it may also earn less). A **non-financial** reason is **independence** — the owner is their **own boss**, deciding which work to take on and how to run it, rather than following an employer's direction. Many people establish a business for both reasons at once: the freedom to run things their own way, backed by the hope of a better income.

Question 8

A business requires three types of resource. **Financial resources** are the finance needed to start and run the business — for example, a personal-training service business needs \$15 000 of the owner's **capital** plus a small bank **loan** to fit out a studio. **Physical resources** are the tangible items it uses — for the same business, the studio premises, gym equipment and a sound system, most of which are non-current assets. **Human resources** are the people whose skills and labour run it — the owner's own training expertise and perhaps a part-time receptionist. Together the finance pays for the physical resources that the human resources use to deliver the service.

Question 9

Internally sourced finance is provided from within the business or the owner's own funds — the owner's **capital** and **retained profits** — whereas **externally sourced finance** is raised from outside the business and its owner, such as a bank **loan**, an **overdraft** or **trade credit**. One **advantage of internal** finance is that it creates **no liability, interest or repayment**, so it keeps the business's commitments and risk low. One **advantage of external** finance is that it lets the business raise **more than the owner could provide alone**, allowing it to be established on a larger or better-equipped scale.

Question 10

The **\$20 000 bank loan** creates a **liability** for the business, whereas the **\$30 000 capital** does not. The loan is **externally sourced finance**: it is money owed to an outside party (the bank), so the business has a **present obligation** to transfer economic resources (cash) to repay it, usually with interest — the definition of a liability. The \$30 000 the owner contributes as **capital** is **internally sourced**: it is the owner's own funds invested in the business, forming part of **owner's equity**, not an amount owed to an outside party, so it is not a liability and carries no repayment or interest obligation.

Question 11

Trade credit is finance a business receives when a supplier lets it **take goods or services now and pay for them later**. Because the finance is provided by an **outside party** (the supplier) rather than by the owner, it is a form of **externally sourced finance**: for the period between receiving the goods and paying for them, the supplier is effectively funding the business. The amount owed to the supplier is recorded as a liability in **Accounts Payable** until it is paid.

Question 12

When acquiring a major physical resource such as a delivery vehicle, the owner must choose between **buying** and **leasing**. **Buying** the vehicle means paying for it now — using the owner's finance or a loan — and **owning** it, so it is reported as a non-current asset; this ties up a large amount of finance at establishment, exactly when cash is scarce. **Leasing** means making smaller regular payments to use the vehicle without owning it, which **spreads the cost** over time and **preserves cash and borrowing capacity** for other establishment needs, but over the long run may cost more and leaves the business without ownership of the asset. The decision turns on how much finance the business has available at establishment and how it wishes to balance ownership against cash flow.

Question 13

In a service business the **service itself is delivered by the people**, so the quality of what the customer receives depends directly on the **skills, knowledge and experience** of the human resources. For example, in a physiotherapy service business the value the customer receives *is* the physiotherapist's expertise: a highly skilled, well-trained practitioner produces good outcomes and loyal customers, whereas an unskilled one would harm the business's reputation no matter how modern its equipment. Because the human resources effectively *are* the product, recruiting, training and retaining capable people is central to the success of a service business.

Question 14

The decision to establish a business is itself a decision accounting information should inform. Because accounting can express the owner's intentions as **dollar figures**, it allows the venture to be tested **before** any money is committed: the owner estimates what the business will cost to establish and what it is likely to earn, and compares the two. If the projections show the business cannot cover its costs or service its finance, the owner learns this while abandoning the idea still costs nothing — which is the whole value of planning with accounting information rather than intuition. Two estimates the owner would rely on are the **start-up costs** (the finance needed to acquire the non-current assets and to operate until revenue flows) and the **projected profit** shown by a Budgeted Income Statement — with the **projected cash flows** an equally important third, since a business can be profitable and still run out of cash.

Question 15

A **Budgeted Cash Flow Statement** estimates the cash the business expects to **receive and pay** in a future period, and so shows whether it will hold enough cash to meet its costs and its loan repayments during the establishment period, when revenue is still building. A **Budgeted Income Statement** estimates the **revenue** the business expects to earn and the **expenses** it expects to incur, and so shows whether it is likely to be **profitable**. Together they let the owner — and a lender assessing the application — judge the venture's viability *before* it trades, which is planning in its purest form.

They remain useful once the business is trading because a budget is also a **benchmark**. Comparing the **actual** results with the budgeted figures shows where the business has performed better or worse than expected, and by how much, which directs the owner's attention to the areas needing action and informs the next set of budgets. In this way accounting is used not only to record what has happened but to **plan and evaluate what was expected to happen** (Chapter 17).

Question 16

The **nature of the operations** differs according to what each business provides. A **service business performs services** for its customers and does not buy and resell inventory; its main revenue is **fees**. A **trading business buys inventory and resells** it at a higher price; its main revenue is **sales**. The service business's operations therefore revolve around its people delivering a service, while the trading business's operations revolve around buying, holding and selling inventory.

The major expense the **trading** business reports but the service business does not is **cost of sales** — the cost the business paid for the inventory it sold, which is usually its largest single expense. A service business has no cost of sales because it has no inventory to sell; its own largest expense is typically **wages**, which reflects that its "product" is the labour of its people.

Question 17

The **establishment** phase is the **once-only** stage of setting the business up — deciding to start, raising finance and acquiring the non-current assets and other resources needed to begin; an example is **taking out a loan to buy the business's equipment**. The **operations** phase is the **continuing** stage that follows, in which the business uses those resources day to day to provide goods or services and earn revenue; an example is **performing a service for a customer and invoicing them a fee**. The first gets the business ready to trade; the second is the trading itself.

Question 18

The owner of *Wattlebank Landscaping* faces two ethical decisions with different financial implications for the reports.

In choosing a **supplier of physical resources**, the owner weighs a cheaper but unsustainable supplier against a dearer certified-sustainable one. The **ethical consideration** is environmental and social: choosing the sustainable supplier reflects a responsibility to reduce environmental harm, even though its materials cost more. The **financial implication**

is that the sustainable choice **raises expenses and so reduces the profit** reported in the Income Statement in the short term; however, it may protect the business's reputation and customer loyalty and so support **greater profit over the longer term**, whereas the cheaper choice flatters current profit but risks reputational damage if customers or the community object.

In preparing the **budgeted reports** for the bank, the owner is tempted to **overstate projected profit** to make the loan easier to obtain. This breaches the ethical obligation to present accounting information as an **honest, faithful representation**: the projections would be **neither complete nor neutral**, because they are deliberately biased to look better than the owner truly expects. The **financial implication** is that the overstated projections misrepresent the business's likely position to the lender, who may approve finance the business cannot actually service; when the real reports later fall short, the business's true performance is exposed, its relationship with the bank is damaged, and the owner may face serious consequences. Acting ethically, the owner should choose the sustainable supplier where it is affordable and consistent with the business's values, and present **realistic, honest projections** in the plan — accepting that sound long-term decisions may reduce reported profit now but protect the integrity and viability of the business.

Chapter 3 Business ownership — 3B Ownership structures

Theory

Before an individual commits resources to a business venture, one of the first decisions they must make is **how the business will be owned** — its **ownership structure**. The structure chosen shapes almost everything that follows: how the business is established, who controls it, how much of the owner's personal wealth is at risk, how easily the business can raise finance, and whether it can outlive the people who started it. The VCE Accounting Study Design (2025–2029) names **four** types of ownership structure: the **sole proprietor**, the **partnership**, the **private company** (proprietary limited, *Pty Ltd*) and the **public company** (limited, *Ltd*).

These four fall into two groups. A sole proprietor and a partnership are **unincorporated** — the business is **not** a legal entity separate from the people who own it. A private company and a public company are **incorporated** — the business is registered with the Australian Securities and Investments Commission (**ASIC**), receives an Australian Company Number (**ACN**), and becomes a **separate legal entity** that exists in law independently of its owners. This single difference — incorporation — is what drives most of the contrasts between the structures, above all the difference between **unlimited** and **limited** liability.

The sole proprietor

A **sole proprietor** (or sole trader) is a business **owned and controlled by one person**. It is the simplest and cheapest structure to establish: the owner registers a business name and applies for an Australian Business Number (**ABN**), with little other legal formality. The owner supplies the capital, makes every decision, keeps **all** of the profit, and bears **all** of the risk.

Because a sole proprietor is **not a separate legal entity**, the owner and the business are one and the same person in law. The most important consequence is **unlimited liability**: the owner is **personally responsible for all the debts of the business**, so if the business cannot pay what it owes, the owner's **private assets** — savings, car, even the family home — can be taken to meet those debts. The business's life is also tied to the owner: it has a **limited life**, ceasing when the owner retires, dies or chooses to stop trading.

- **Advantages:** cheap and simple to establish; the owner keeps all profit and has complete control and quick decision-making; the affairs of the business are **private** (no public disclosure).
- **Disadvantages:** **unlimited liability**; limited access to finance (only the owner's own funds and borrowings); reliance on the skills, time and health of one person; a **limited life**.

The partnership

A **partnership** is a business **owned by two or more people** (generally **2 to 20 partners**) who carry on business together with a view to profit. Like a sole proprietor it is **unincorporated** and **not a separate legal entity**, so the partners share **unlimited liability**. Partners are **jointly liable** for the debts of the partnership — a creditor can pursue **any** partner's private assets for the **whole** debt, not merely that partner's share. Each partner can also **bind the partnership** to agreements (mutual agency), so one partner's decisions commit the others.

A partnership is usually governed by a **partnership agreement** setting out how much capital each partner contributes and how profits, losses and control are shared. The agreement is strongly advisable but not legally required; without one, profits are shared equally by default. Because it draws on more than one owner, a partnership can usually gather **more capital and a wider range of skills** than a sole proprietor, and the workload and decisions are shared.

- **Advantages:** more capital and expertise than a sole proprietor; shared workload and decision-making; still relatively simple and cheap to establish; affairs remain **private**.
- **Disadvantages:** **unlimited liability** (shared); potential for **disputes** between partners; profits must be **shared**; each partner is bound by the others' decisions; a **limited life** (the partnership is dissolved when a partner dies, retires or withdraws, and must be re-formed).

The private company (proprietary limited — Pty Ltd)

A **private company** is an **incorporated** business, registered with ASIC, that is a **separate legal entity** from its owners. Its owners are called **shareholders** (or members), and a private company may have **1 to 50** non-employee shareholders. Its shares **cannot** be offered to the general public and are **not** traded on a stock exchange; ownership

changes hands privately, often among family or a small group of investors. The abbreviation *Pty Ltd* signals both that the company is **proprietary** (private) and that its owners enjoy **limited** liability.

Because the company is a **separate legal entity**, it can own assets, incur debts, enter contracts, and sue or be sued **in its own name**. The debts are the **company's** debts, not the shareholders'. This gives shareholders **limited liability**: a shareholder can lose only the amount they have paid (or agreed to pay) for their shares — their **private assets are protected** if the company fails. As a separate legal entity the company also has **continuity of existence**: it continues to exist regardless of changes in its shareholders, because the death or departure of a shareholder simply transfers their shares rather than ending the company.

- **Advantages:** **limited liability**; a **separate legal entity** with **continuity of existence**; easier to raise capital than a sole proprietor or partnership (by issuing shares to a restricted group); **less public disclosure** than a public company (greater privacy).
- **Disadvantages:** **more complex and expensive** to establish and run; ongoing **compliance and reporting** obligations under the Corporations Act; **cannot** raise funds from the general public; limited to **50** non-employee shareholders.

The public company (limited — Ltd)

A **public company** is also an **incorporated, separate legal entity**, but it may **offer its shares to the general public** and be **listed on the Australian Securities Exchange (ASX)**. It must have at least **one** shareholder and has **no upper limit** on the number of shareholders — a large public company may have thousands. To raise funds from the public it issues a **prospectus**. The abbreviation *Ltd* signals **limited** liability without the “proprietary” restriction on public fundraising.

A public company gives shareholders the same **limited liability** and the company the same **continuity of existence** as a private company, but because ownership is so widely spread there is a **separation of ownership and control**: the many shareholders **own** the company but elect a **board of directors** to **control** and manage it on their behalf. Public companies face the **strictest** regulation: they must comply with the **Corporations Act** and **publish audited financial reports** that are available to the public, and a public company that is **listed** must also comply with the **ASX Listing Rules**, so their affairs are far from private.

- **Advantages:** **limited liability**; the **greatest access to finance** (large amounts of capital raised from the public); a **separate legal entity** with **continuity of existence**; shares are easily **transferable**, so owners can enter and exit readily.
- **Disadvantages:** the **most complex and expensive** structure to establish and administer; **extensive disclosure** and loss of privacy; **separation of ownership and control** (individual owners have little day-to-day say); exposure to **takeover**.

Comparing the structures

Feature	Sole proprietor	Partnership	Private company (<i>Pty Ltd</i>)	Public company (<i>Ltd</i>)
Number of owners	1	2–20	1–50 shareholders	1 to unlimited shareholders
Separate legal entity?	No (unincorporated)	No (unincorporated)	Yes (incorporated)	Yes (incorporated)
Owner liability	Unlimited	Unlimited (shared)	Limited	Limited
Ease and cost of formation	Simplest, cheapest	Simple, low cost	More complex, costlier	Most complex, costliest
Access to finance	Owner's funds + borrowing	Partners' funds + borrowing	Shares to a restricted group (≤ 50) + borrowing	Shares to the general public (ASX) + borrowing
Continuity of existence	Ends with the owner	Ends when a partner leaves	Continuous	Continuous
Public disclosure	None	None	Limited	Extensive (audited public reports)

Incorporation, liability and the accounting entity

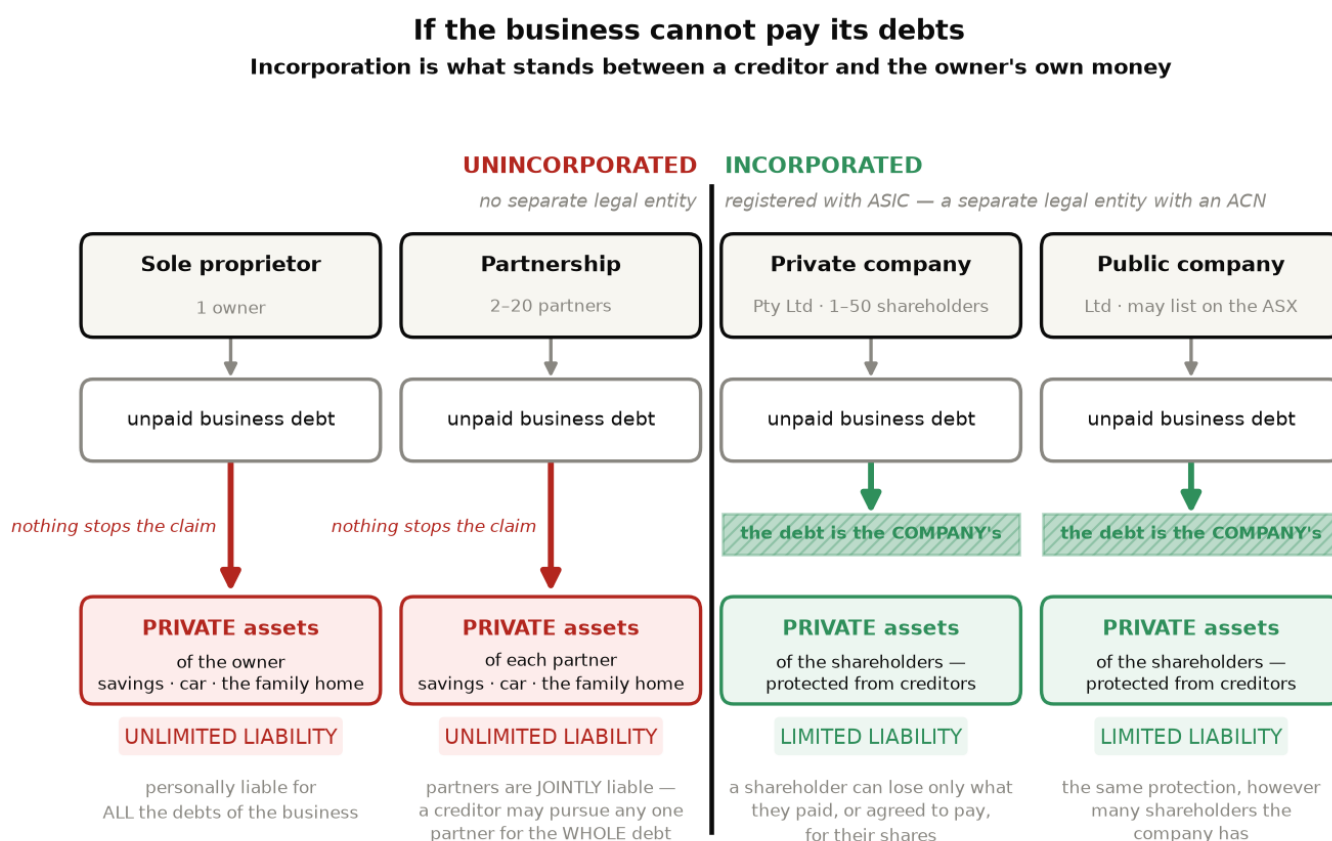
Two ideas are easy to confuse but must be kept apart: the **legal entity** and the **accounting entity**.

The **accounting entity assumption** requires the records of the **business** to be kept **completely separate** from the personal affairs of its **owner(s)**, so that every report describes the business alone. This assumption applies to **all four** structures — even a sole proprietor, who is **not** a separate *legal* entity, is still treated as a separate **accounting** entity. That is why a sole proprietor's or partnership's records use **Capital** (owner's contributions) and **Drawings** (owner's withdrawals) to keep the owner's private dealings out of the business's profit.

A **separate legal entity**, by contrast, exists only when a business is **incorporated** as a company. It is a legal fact — the company can own property and owe debts in its own name — and it is precisely what gives shareholders their **limited liability**. So:

- For a **sole proprietor** and a **partnership**: separate **accounting** entity **only**. The owner is **not** legally separate, so **unlimited liability** follows — a business debt is ultimately the owner's personal debt.
- For a **private company** and a **public company**: separate **accounting** entity **and** separate **legal** entity. Because the company is legally separate, its debts are its own and the shareholders' liability is **limited**.

The figure below follows an **unpaid business debt** through each of the four structures, and shows what incorporation actually does. To the left of the line the business is not a separate legal entity, so nothing stands between the creditor and the owner's private assets; to the right the debt belongs to the **company**, and the claim stops there.



If the business cannot pay its debts — incorporation is what stands between a creditor and the owner's own money

This is why “unlimited” and “limited” liability are best understood not as two different rules but as the **presence or absence of a barrier**. A sole proprietor and a partnership have no barrier, so the debt runs straight through to savings, a car or the family home — and in a partnership it may run through to **any** partner for the **whole** debt, not merely their share. A *Pty Ltd* and a *Ltd* have that barrier, which is exactly what registration with **ASIC** creates, and it is the single difference from which most of the other contrasts in the comparison table follow.

The choice of structure also changes how **owner's equity** is reported. A sole proprietor or partnership reports **Capital** and **Drawings**; a company instead reports **Share capital** (funds contributed by shareholders) and pays **dividends**

rather than allowing drawings, because the shareholders and the company are legally distinct. (In Units 1 & 2 the recording focus is the **sole proprietor**, so Capital and Drawings are used throughout the practical work.)

Ethical considerations. The choice of ownership structure carries ethical, not just financial, weight. **Limited liability** is a deliberate legal protection, but it also shifts risk onto others: if a company fails, its **creditors, suppliers and employees** — not the shareholders — bear the unpaid debts. Choosing to incorporate is legitimate, but using a company structure to **take on debts the owner does not intend to repay**, or to deliberately liquidate a failing company and restart the same business under a new name to escape those debts (“phoenix” activity), is **unethical and unlawful**. Directors also have a legal duty **not to trade while insolvent**. Ethical considerations extend to **transparency**, too: choosing a private company partly to avoid the public disclosure required of a public company is legitimate, but it must not become a way to **conceal** information that lenders, investors or the tax authorities are entitled to rely on. A responsible owner weighs the **financial** benefit of a structure against its **social** consequences for the people who deal with the business, and ensures the business’s reports remain **complete and neutral** whatever structure is chosen.

Worked model. Priya runs *Marlowe Interiors* as a sole proprietor. She takes on a \$90 000 fit-out contract, but the client refuses to pay and Priya cannot meet \$40 000 of supplier debts. Because a sole proprietor is **not a separate legal entity**, Priya has **unlimited liability**: the \$40 000 is her **personal** debt, and her private savings and even her home can be pursued to pay it. Had *Marlowe Interiors* instead been incorporated as a **private company (Pty Ltd)**, the company would be a **separate legal entity** and Priya’s liability would be **limited** to what she had paid for her shares — her personal assets would be protected, though the unpaid suppliers would bear the loss.

Worked examples (scaffolded)

Example 1 — distinguish a sole proprietor from a partnership

Jordan currently runs *Tidewater Surf School* on his own. His friend Mei wants to join the business, contribute capital and share the running of it. Distinguish a **sole proprietor** from a **partnership** in terms of **ownership** and **liability**, and state one further advantage Jordan would gain by taking Mei on as a partner.

Working	Comment
Define the two structures: a sole proprietor is a business owned and controlled by one person; a partnership is a business owned by two or more people (usually 2–20).	A “distinguish” answer must first make clear what each term means.
Distinguish on ownership: as a sole proprietor Jordan owns the business alone and keeps all the profit; as a partnership Jordan and Mei would share ownership, control and profit .	State the point of difference on the first criterion asked for.
Distinguish on liability: both structures have unlimited liability — but in a partnership the liability is shared , and each partner is jointly liable for the whole of the partnership’s debts.	Note the similarity <i>and</i> the difference: the type of liability is the same, but a partner can be pursued for debts the other partner caused.
State a further advantage of partnership: Mei brings additional capital and skills , and the workload and decisions are shared .	The question asks for one extra advantage — link it to the scenario (Mei’s capital and help).

∴ the key difference is that a partnership **shares ownership, control and profit** among 2–20 people (with jointly-held unlimited liability), whereas a sole proprietor owns and bears everything **alone**; taking Mei on brings extra capital, skills and shared workload.

Example 2 — recommend an ownership structure and justify the choice

Brightgrove Landscapes is a partnership run by two owners. The business is growing fast, is about to sign much larger contracts, and the owners are worried that their **personal assets** are exposed if a contract goes wrong. They want to bring in a few private investors to fund expansion but wish to **keep control within a small group** and avoid the cost

and public scrutiny of listing on the ASX. Recommend the most suitable ownership structure and justify your recommendation.

Working	Comment
Identify the decisive needs: protection of personal assets, some outside investment, control kept in a small group, and no public listing.	A “recommend” answer starts by pulling out the criteria the choice must satisfy.
Recommend the structure: the owners should incorporate as a private company (<i>Pty Ltd</i>).	State the recommendation clearly before justifying it.
Justify — liability: a private company is a separate legal entity , so the owners gain limited liability and their private assets are protected if a contract fails.	This directly answers their biggest concern.
Justify — finance and control: a <i>Pty Ltd</i> can issue shares to up to 50 private investors, raising expansion capital while keeping ownership in a chosen group — its shares are not offered to the public.	Show the structure meets the investment <i>and</i> control needs.
Justify — why not a public company: a public company would demand extensive public disclosure , high cost and a separation of ownership and control the owners want to avoid.	Ruling out the main alternative strengthens a recommendation.
Acknowledge the cost: they must accept greater set-up cost and ongoing compliance than remaining a partnership.	A justified recommendation notes the trade-off being accepted.

∴ a **private company (*Pty Ltd*)** best fits *Brightgrove Landscapes*: it delivers limited liability and access to private investment while keeping control in a small group, at the acceptable cost of greater compliance.

Worked examples (unscaffolded)

Example 3 — limited liability, the separate legal entity and its accounting implication

Halevy Robotics Pty Ltd is a private company. Explain what is meant by describing the company as a **separate legal entity**, how this gives its shareholders **limited liability**, and how the accounting entity assumption still applies.

Because *Halevy Robotics Pty Ltd* is **incorporated**, it is a **separate legal entity**: in law the company exists independently of the people who own it, and it can **own assets, owe debts and enter contracts in its own name**. The debts of the business are therefore the **company’s** debts, not the shareholders’ — this is what gives the shareholders **limited liability**, meaning a shareholder can lose only the amount they have **paid (or agreed to pay) for their shares**, while their **private assets are protected** if the company fails. The **accounting entity** assumption applies to the company just as it does to any business: the records of the company are kept **completely separate** from the private affairs of its shareholders, so that the reports describe the company alone. The difference is that for a company this separation is both an **accounting** convention **and** a **legal** reality, whereas for a sole proprietor it is only an accounting one. ∴ incorporation makes the company legally separate, which both limits shareholder liability and reinforces the accounting entity assumption.

Example 4 — unlimited liability and a recommendation to restructure

Nadia has run *Coburn Joinery* as a sole proprietor for six years. The business is expanding, is borrowing more, and Nadia is anxious that her **\$620 000 family home** could be lost if the business fails. Explain why her home is at risk under her current structure, and recommend, with justification, how she could reduce that risk.

As a **sole proprietor**, *Coburn Joinery* is **not a separate legal entity** from Nadia, so she has **unlimited liability**: the debts of the business are legally **her own** debts. If the business cannot pay its creditors, those creditors can pursue Nadia’s **private assets** — including the **\$620 000 home** — to recover what they are owed, because there is no legal line between her and the business. To reduce this risk, Nadia should **incorporate the business as a private company (*Pty Ltd*)**. A private company is a **separate legal entity**, so its debts would be the **company’s** debts and Nadia’s liability would be **limited** to the amount she paid for her shares, placing her home beyond the reach of business

creditors. She would have to accept the **higher set-up cost and ongoing compliance** of a company, but this is a reasonable price for protecting a substantial personal asset as the business grows. ∴ Nadia's home is exposed because a sole proprietor has unlimited liability, and incorporating as a *Pty Ltd* would limit her liability and protect it.

Practice questions — scaffolded

Question 1

Aria operates *Fernwick Bakehouse* on her own, supplying all the capital and keeping all the profit.

- Define a **sole proprietor**.
- State whether a sole proprietor is a separate legal entity from its owner.
- Explain what **unlimited liability** would mean for Aria if *Fernwick Bakehouse* could not pay its debts.

Question 2

Delmont & Hale Physiotherapy is owned by two physiotherapists who run the clinic together.

- Define a **partnership**.
- State the usual maximum number of partners in a partnership.
- Explain **one** advantage and **one** disadvantage of a partnership compared with a sole proprietor.

Question 3

Vantage Freight Pty Ltd is a private company with 12 shareholders.

- Define a **private company** (*Pty Ltd*).
- Explain what **limited liability** means for its shareholders.
- Explain why a private company is described as a **separate legal entity**, and state one consequence of that status.

Question 4

Kestrel Energy Ltd is a public company listed on the ASX.

- Define a **public company** (*Ltd*).
- Distinguish a public company from a private company in terms of **raising finance**.
- Explain **one** disadvantage of operating as a public company.

Question 5

Sam runs *Ridgeway Signs* as a sole proprietor and sometimes pays personal bills from the business bank account.

- Define the **accounting entity** assumption.
- Explain how the accounting entity assumption applies to *Ridgeway Signs* even though a sole proprietor is **not** a separate legal entity.
- Explain how the reporting of **owner's equity** for a company differs from that for a sole proprietor.

Question 6

Two graphic designers currently work together informally. They want limited liability and to bring in three private investors, but they want to keep control in the group and avoid the cost of a public listing.

- Identify the **most suitable** ownership structure for them.
- Justify your choice with **two** reasons drawn from the scenario.
- State **one** disadvantage they must accept in choosing that structure.

Practice questions — unscaffolded

Question 7

Distinguish between a **sole proprietor** and a **partnership**, referring to both the **number of owners** and the **way liability is shared**.

Question 8

Oakline Catering is a partnership of three owners. One partner orders \$28 000 of equipment on the partnership's behalf, and the business cannot pay. Explain, with reference to **unlimited liability** and **joint liability**, how the debt may be recovered from the other two partners.

Question 9

Explain the difference between an **unincorporated** and an **incorporated** business, and describe how this difference affects the **cost and complexity** of establishing the business.

Question 10

Sablefox Instruments Pty Ltd is a private company. Explain what is meant by **limited liability** and by a **separate legal entity**, and explain how the **accounting entity assumption** still applies to the company.

Question 11

Distinguish a **private company** (*Pty Ltd*) from a **public company** (*Ltd*) with reference to the **number of owners**, the **offering of shares**, and the **level of public disclosure** required.

Question 12

Marcus is starting out as a freelance web developer working alone from home, with little capital and a strong wish to keep set-up simple and his affairs private. Recommend the most suitable ownership structure and justify your recommendation.

Question 13

Two experienced veterinarians who trust each other want to open a clinic together, pool their capital and skills, share the work, and keep establishment costs and paperwork low. They are comfortable sharing the risk personally. Recommend the most suitable ownership structure and justify it, explaining why you did **not** recommend a private company.

Question 14

Meridian Solar is a rapidly growing business that needs to raise **many millions of dollars** to build manufacturing plants across Australia and is willing to accept extensive regulation and public scrutiny to do so. Recommend the most suitable ownership structure and justify your recommendation.

Question 15

Explain what is meant by **continuity of existence**, and contrast a **sole proprietor** with a **company** on this point.

Question 16

Explain what is meant by the **separation of ownership and control** in a public company, and describe **one** implication of it for the company's shareholders.

Question 17

Explain how the choice of ownership structure affects a business's **access to finance**, referring to the sole proprietor, the partnership and the public company.

Question 18 (ethics — discuss)

The owner of *Harwick Constructions Pty Ltd* deliberately runs the company deeper into debt with suppliers and subcontractors, then liquidates it and immediately restarts the same building business under a new company name, leaving the unpaid debts behind. Discuss the ethical considerations raised by this conduct, referring to the purpose of **limited liability**, the interests of the company's **creditors and employees**, and the **financial and social** implications of the owner's choices.

Answers

1.
 - a. a business owned and controlled by one person b. no — not a separate legal entity c. Aria is personally liable for all business debts; her private assets can be taken to pay them
2.
 - a. a business owned by 2–20 people carrying on business together for profit b. 20 c. e.g. advantage: more capital/skills and shared workload; disadvantage: shared (unlimited) liability, shared profit and potential disputes
3.
 - a. an incorporated, separate legal entity with 1–50 shareholders whose shares are not offered to the public b. shareholders can lose only what they paid for their shares; private assets protected c. it exists in law separately from its owners — it can own assets/owe debts in its own name (giving limited liability / continuity)
4.
 - a. an incorporated, separate legal entity that may offer shares to the public and list on the ASX
 - b. a public company can raise finance from the **general public** (via a prospectus/ASX); a private company can only issue shares to a restricted group (≤ 50) c. e.g. extensive disclosure / high cost / separation of ownership and control / takeover risk
5.
 - a. the records of the business are kept separate from the private affairs of the owner b. the business is still a separate **accounting** entity, so Capital and Drawings keep Sam's private dealings out of the business's profit c. a company reports **Share capital** (and pays dividends); a sole proprietor reports **Capital and Drawings**
6.
 - a. private company (*Pty Ltd*) b. e.g. limited liability + can issue shares to ≤ 50 private investors while keeping control and privacy c. e.g. greater set-up cost and ongoing compliance
7. sole proprietor = 1 owner bearing liability alone; partnership = 2–20 owners with shared (joint) unlimited liability
8. unlimited + joint liability: creditors may pursue **any** partner's private assets for the **whole** \$28 000
9. unincorporated (sole proprietor/partnership) = not a separate legal entity, simple/cheap; incorporated (company) = separate legal entity registered with ASIC, more complex/costly
10. limited liability = shareholders lose only what they paid for shares; separate legal entity = company owns assets/owes debts in its own name; accounting entity assumption still keeps company records separate from shareholders'
11. Pty Ltd = 1–50 shareholders, no public share offer, limited disclosure; Ltd = 1–unlimited shareholders, public share offer/ASX, extensive disclosure
12. sole proprietor — simplest and cheapest, full control, private, suited to one person with little capital
13. partnership — shares capital/skills/workload, simple and cheap, and they accept personal risk; a *Pty Ltd* would add unnecessary cost and compliance
14. public company (*Ltd*) — only structure able to raise many millions from the public and grow at scale
15. continuity = the business continues despite changes in ownership; a sole proprietor ends with the owner, a company continues (perpetual succession)
16. shareholders **own** but elect directors to **control**; implication: owners have little day-to-day say / must rely on directors acting in their interests
17. sole proprietor = owner's funds + borrowing (least); partnership = partners' funds + borrowing; public company = shares to the general public (greatest)
18. see solutions — phoenix activity abuses limited liability, harms creditors/employees, and is unethical and unlawful

Fully-worked solutions

Question 1

- a. A **sole proprietor** (sole trader) is a business **owned and controlled by one person**, who supplies the capital, makes all decisions, keeps all the profit and bears all the risk.
- b. **No** — a sole proprietor is **not** a separate legal entity; in law the owner and the business are the same person.
- c. **Unlimited liability** means Aria is **personally responsible for all the debts** of *Fernwick Bakehouse*. Because the business is not legally separate from her, its debts are her own debts, so if the business cannot pay, creditors can pursue Aria's **private assets** — such as her savings, car or home — to recover what they are owed.

Question 2

- a. A **partnership** is a business **owned by two or more people** (generally **2 to 20 partners**) who carry on business together with a view to making a profit, usually under a partnership agreement.
- b. The usual maximum is **20** partners.
- c. **Advantage:** a partnership brings **more capital and a wider range of skills** than a sole proprietor, and the **workload and decisions are shared** between the partners. **Disadvantage:** the partners have **shared unlimited liability** (each is jointly liable for the whole of the partnership's debts), profits must be **shared**, and **disputes** can arise between partners.

Question 3

- a. A **private company** (*Pty Ltd*) is an **incorporated** business that is a **separate legal entity**, owned by **1 to 50** non-employee shareholders, whose shares are **not** offered to the general public.
- b. **Limited liability** means each shareholder can lose only the amount they have **paid (or agreed to pay) for their shares**. Because the company's debts are its own, the shareholders' **private assets are protected** if the company fails.
- c. A private company is a **separate legal entity** because, once incorporated with ASIC, it exists **in law independently of its owners** and can **own assets, owe debts and enter contracts in its own name**. One consequence is that the company's **debts are its own** (giving shareholders limited liability); another is **continuity of existence** — the company survives changes in its shareholders.

Question 4

- a. A **public company** (*Ltd*) is an **incorporated, separate legal entity** that may **offer its shares to the general public** and be **listed on the ASX**; it has at least one shareholder and **no upper limit** on the number of shareholders.
- b. A **public company** can raise finance directly from the **general public** — issuing a **prospectus** and selling shares on the ASX — allowing it to raise very large amounts. A **private company** cannot offer shares to the public; it may only issue shares to a **restricted group of up to 50** investors, so its capacity to raise capital is far smaller.
- c. One disadvantage is the **extensive public disclosure** required: a public company must publish **audited financial reports** and comply with the **Corporations Act**, and because *Kestrel Energy Ltd* is **listed**, it must also comply with the **ASX Listing Rules** — all of which is costly and removes privacy. (Other acceptable answers: high establishment/administration cost; **separation of ownership and control**; exposure to **takeover**.)

Question 5

- a. Under the **accounting entity** assumption, the records of the **business** are kept **completely separate** from the personal affairs of its **owner**, so that each report describes the business alone.
- b. Even though a sole proprietor is **not** a separate *legal* entity, the assumption treats *Ridgeway Signs* as a separate **accounting** entity. Sam's personal bills paid from the business account are therefore **not** business expenses; they are recorded as **Drawings** (a withdrawal of business resources for private use), which keeps Sam's private dealings out of the business's reported profit.

- c. A **company** reports owner's equity as **Share capital** — the funds contributed by shareholders — and distributes profit through **dividends**, because the company and its shareholders are legally distinct. A **sole proprietor** reports **Capital** (the owner's contribution) and **Drawings** (the owner's withdrawals); there are no shares and no dividends.

Question 6

- a. The most suitable structure is a **private company** (*Pty Ltd*).
- b. First, a private company is a **separate legal entity**, giving the designers **limited liability** so their **private assets are protected**. Second, a *Pty Ltd* can **issue shares to up to 50 private investors** — enough for the three investors they want to bring in — while its shares are **not** offered to the public, so the founders **keep control within the group** and avoid the cost and scrutiny of a public listing.
- c. They must accept **greater establishment cost and ongoing compliance** (registration with ASIC and reporting obligations under the Corporations Act) than remaining an informal arrangement or a partnership.

Question 7

A **sole proprietor** is owned by **one** person, who owns and controls the business alone, keeps all the profit and bears the liability **alone**. A **partnership** is owned by **two or more** people (2–20), who **share** ownership, control and profit. Both structures carry **unlimited liability**, but in a partnership that liability is **shared and joint**: each partner is personally liable for the **whole** of the partnership's debts, not merely their own share, whereas a sole proprietor bears the business's debts by themselves.

Question 8

Because a partnership is **unincorporated** and **not** a separate legal entity, the partners have **unlimited liability**, and that liability is **joint**. This means the \$28 000 debt for the equipment is a debt of **all three partners together**, even though only one partner placed the order (a partner can **bind** the partnership). If the business itself cannot pay, the creditor may pursue the **private assets of any partner** to recover the **whole** \$28 000 — so the other two partners can be made to pay the debt in full from their personal wealth, and would then have to seek a contribution from the third partner separately.

Question 9

An **unincorporated** business (a sole proprietor or partnership) is **not** a separate legal entity — the owners and the business are the same in law. An **incorporated** business (a private or public company) is **registered with ASIC** and becomes a **separate legal entity** distinct from its owners. This difference affects **cost and complexity**: an unincorporated business is **simple and cheap** to establish (little more than registering a business name and obtaining an ABN), whereas incorporating a company is **more complex and expensive**, requiring registration with ASIC, an ACN, a formal legal structure and ongoing **compliance and reporting** under the Corporations Act.

Question 10

Limited liability means the shareholders of *Sablefox Instruments Pty Ltd* can lose only the amount they have **paid (or agreed to pay) for their shares** — their **private assets are protected** if the company fails. This is possible because the company is a **separate legal entity**: being incorporated, it exists in law **independently of its owners** and can **own assets, owe debts and enter contracts in its own name**, so the debts belong to the company, not the shareholders. The **accounting entity assumption** still applies: the company's records are kept **completely separate** from the private affairs of its shareholders, so the reports describe the company alone. For a company this separateness is both a **legal reality** and an **accounting** convention, whereas for a sole proprietor it is only the latter.

Question 11

A **private company** (*Pty Ltd*) has **1 to 50** shareholders; a **public company** (*Ltd*) has at least one shareholder and **no upper limit**. A private company **cannot** offer its shares to the general public and is **not** listed on a stock exchange — shares change hands privately; a public company **may offer shares to the public** (via a prospectus) and be **listed on the ASX**. Their **disclosure** obligations differ accordingly: a private company faces **limited** disclosure, while a public company must meet **extensive** disclosure requirements, publishing **audited financial reports** available to the public and, **if it is listed**, also complying with the **ASX Listing Rules**.

Question 12

Marcus should operate as a **sole proprietor**. Working **alone** with **little capital**, he needs the **simplest and cheapest** structure to establish — a sole proprietor requires little more than registering a business name and obtaining an ABN. It gives him **full control** of the business, lets him keep **all the profit**, and keeps his affairs **private**, all of which suit a one-person start-up. The main trade-off is **unlimited liability**, but with little borrowing and a small, low-risk operation this is an acceptable risk at the outset; he can always incorporate later if the business grows and its debts and risks increase. ∴ a **sole proprietor** is the most suitable structure for Marcus.

Question 13

The two veterinarians should form a **partnership**. A partnership lets them **pool their capital and complementary skills** and **share the workload and decisions**, which is exactly what they want, while remaining **simple and inexpensive** to establish with minimal paperwork — they should put a **partnership agreement** in place to set out capital contributions and profit sharing. A **private company** was **not** recommended because, although it would give limited liability, it would add **unnecessary cost and ongoing compliance** (ASIC registration and Corporations Act reporting) that the vets do not need: they have stated they **trust each other and are comfortable bearing the risk personally**, so the protection of limited liability does not justify the extra expense and administration for a small, trusted, two-owner clinic. ∴ a **partnership** best fits their priorities of shared capital and skills at low cost.

Question 14

Meridian Solar should become a **public company (Ltd)**. It needs to raise **many millions of dollars**, and a public company is the **only** structure able to raise capital from the **general public** — issuing a **prospectus** and selling shares on the **ASX** — which can generate the large sums required to build plants across Australia. As an incorporated **separate legal entity** it also offers **shareholders limited liability** and **continuity of existence** to support long-term national growth. The business has already indicated it will **accept the extensive regulation and public scrutiny** that listing entails (audited public reporting, Corporations Act and ASX compliance), so the main disadvantages of the structure are ones it is willing to bear. ∴ a **public company** is the most suitable structure for *Meridian Solar*.

Question 15

Continuity of existence means a business **continues to exist despite changes in its ownership**. A **sole proprietor** has **no** continuity of existence: because the owner and the business are legally the same, the business has a **limited life** and **ceases when the owner retires, dies or stops trading**. A **company**, being an incorporated **separate legal entity**, has **continuity of existence** (perpetual succession): it continues regardless of changes in its shareholders, because the death or departure of a shareholder merely **transfers their shares** rather than ending the company. This makes a company more stable and better able to make long-term commitments than a sole proprietor.

Question 16

The **separation of ownership and control** means that the people who **own** a public company (its many **shareholders**) are **not** the same people who **control and manage** it day to day. The shareholders own the company but **elect a board of directors** to run it on their behalf, because it would be impractical for thousands of owners to make operating decisions together. One implication for shareholders is that they have **little direct say** in how the business is run and must **rely on the directors** to act in the shareholders' interests; if the directors make poor decisions, the shareholders' main recourse is to **vote at the annual meeting** or to **sell their shares**, rather than to intervene directly in management.

Question 17

The ownership structure sets the ceiling on how a business can raise capital. A **sole proprietor** can draw only on the **owner's own funds and borrowings**, so has the **most limited** access to finance — it cannot issue shares, and lenders may be cautious about a one-person business. A **partnership** can pool the **funds of 2–20 partners** plus borrowings, giving it **more** capital than a sole proprietor, but it still cannot issue shares to outside investors. A **public company** has the **greatest** access to finance: as an incorporated entity it can **issue shares to the general public** through a prospectus and list on the **ASX**, raising very large amounts of capital, on top of any borrowing. In general, then, access to finance widens as a business moves from sole proprietor to partnership to company, which is often a key reason a growing business changes its structure.

Question 18

This conduct — deliberately loading a company with debt and then liquidating it to restart debt-free under a new name — is known as **phoenix activity**, and it is both **unethical and unlawful**. **Limited liability** exists for a legitimate purpose: to encourage enterprise by ensuring that **honest** owners who take reasonable risks do not lose their personal assets if a business fails despite their best efforts. It is **not** intended as a shield for owners who run up debts they **never intend to repay**. By abusing it, the owner of *Harwick Constructions Pty Ltd* shifts the loss onto the company's **creditors** (suppliers and subcontractors who are left unpaid for work already done) and its **employees** (who may lose wages and entitlements), while the owner keeps the benefit of their work and continues trading. The **financial** implications are serious — the unpaid parties may themselves be pushed into hardship or insolvency — and the **social** consequences extend to the loss of trust in the business community and the burden that falls on the wider economy. Directors also have a legal duty **not to trade while insolvent**, and deliberate phoenixing can attract penalties from ASIC. Ethically, the owner has a responsibility to deal **honestly and in good faith** with those who extend credit or labour to the business, to keep the company's reports **complete and neutral**, and to meet debts genuinely incurred. Using the corporate form to escape those obligations is a clear breach of that responsibility, whatever short-term financial advantage it appears to offer.

Chapter 3 Business ownership — 3C Starting versus buying; reasons for success and failure; ethical considerations

Theory

Before a single transaction is recorded, an intending owner faces three decisions that will shape the whole life of the business: **how to obtain the business** (start a brand-new one or buy one that already exists), **what will make it succeed or fail**, and — running through every one of these choices — the **ethical considerations** the owner must weigh alongside the financial ones. This section deals with all three. None of them is a “recording” task, so the answers here are written as structured prose: you must be able to **classify and explain** the factors behind success and failure, explain the **role of professionals** in helping an owner succeed, and **discuss and evaluate** the ethical considerations a business owner faces. The first decision — starting against buying — is background rather than assessed content, but it is worth understanding and it calls for exactly the same kind of reasoning. Study Design command terms such as *discuss*, *distinguish*, *explain*, *evaluate* and *justify* call for reasoned argument, not one-line answers.

Starting a new business versus buying an existing one

Extension — beyond the Units 1 & 2 study design. The comparison of starting a new business with buying an existing one, and the calculation of **goodwill**, are background to the study design’s own dot points on the reasons for establishing a business and on the alternatives to establishing one. They are not assessed in the graded topic tests or practice examinations. Worked examples and questions that turn on this material are marked (*extension — not assessed*); the success and failure factors, the role of professionals and the ethical considerations that follow are core, assessable content.

There are two broad ways to become the owner of a business. **Starting a new business** means establishing a brand-new operation from scratch — the owner chooses the location, buys or leases the assets, builds the systems and brand, and must attract customers from a standing start. **Buying an existing business** means purchasing a business that is already trading as a *going concern*, usually including its assets, its established customer base and its reputation.

Advantages of starting a new business.

- **Freedom to design everything** — the owner selects the location, ownership structure, systems and brand to suit their own vision, rather than inheriting someone else’s decisions.
- **No inherited problems** — there is no risk of taking on a poor reputation, disgruntled staff, obsolete inventory or unfavourable contracts and leases from a previous owner.
- **Lower initial outlay** — a new business does not pay for **goodwill**, so the up-front cost is often lower, and the owner can fit out the business gradually.
- **The newest equipment and technology**, chosen to fit current needs.

Disadvantages of starting a new business.

- **No established customer base** — revenue must be built from zero, so it grows slowly and the risk of early **cash flow** shortfalls is high; a new business has the highest failure rate in its first years.
- **No trading history** — with no track record to show, it is **harder to obtain finance** because lenders prefer a proven record of profits and repayments.
- **Time and effort** — building a brand, systems, supplier relationships and a reputation all take time before the business earns a return.

Advantages of buying an existing business.

- **Immediate cash flow** — an established **customer base** generates revenue from day one.
- **A proven trading history** — past reports make it **easier to obtain finance** and easier to forecast future performance.
- **Systems already in place** — trained staff, tested procedures, supplier arrangements and premises are ready to operate.
- **An established reputation and brand**, for which the buyer pays through goodwill.

Disadvantages of buying an existing business.

- **A higher purchase price** — the buyer usually pays for **goodwill** on top of the value of the identifiable assets, so more finance is needed up front.
- **Inherited problems** — the business may come with a weak reputation, ageing equipment, unhappy customers or unfavourable leases and contracts.
- **Less freedom** to reshape the business to the new owner's own preferences.
- **The risk of overpaying** — goodwill is an estimate, and a buyer who relies on the seller's figures may pay for earning capacity that is not really there.

Goodwill. When a business is bought as a going concern, the price often **exceeds the fair value of its identifiable net assets** (its assets less its liabilities). That excess is **goodwill** — the value of the business's reputation, customer loyalty and established earning capacity above its identifiable assets:

$$\text{Goodwill} = \text{purchase price} - \text{fair value of identifiable net assets}$$

For example, if *Coastal Bloom Florist* is offered for sale as a going concern for \$110 000 and the fair value of its identifiable net assets (equipment, fittings and inventory, less any liabilities) is \$85 000, the buyer is paying \$110 000 – \$85 000 = **\$25 000** for goodwill — that is, for the florist's established customers and reputation, not for any physical asset.

Factors that lead to the success or failure of a business

Whether a business succeeds or fails depends on many factors, which the Study Design groups as **financial** and **non-financial**. Both matter, and — importantly — they interact: a non-financial weakness usually shows up sooner or later as a financial one.

Financial factors are those measured directly in dollars:

- **Adequate finance / avoiding undercapitalisation** — a business that begins with too little capital (**undercapitalisation**) cannot absorb early losses or a slow build-up of sales.
- **Cash flow** management — many *profitable* businesses still fail because they run out of cash to pay debts as they fall due; managing the timing of receipts and payments is critical.
- **Pricing** — a selling price must cover costs and leave a margin; prices set too low erode profit, while prices set too high lose sales.
- **Cost control** — keeping expenses in line with revenue protects profit.
- The level of debt, or **gearing** — borrowing can fund growth, but too much debt raises interest costs and repayment pressure and increases the risk of failure.

Non-financial factors are qualities not measured directly in dollars:

- The **management** experience, skill and commitment of the owner — arguably the single most important factor, because it drives every other decision.
- **Location** — foot traffic, accessibility and visibility strongly affect a retail or service business.
- Effective **marketing** and a clear value proposition that reaches the right customers.
- The level of **competition** in the market.
- The quality of **customer service** and customer relationships, which builds repeat business.
- General **economic conditions** — interest rates, employment and consumer confidence lie outside the owner's control but shape demand.

How accounting helps. The owner does not have to judge success or failure by instinct. **Accounting reports** (the Cash Flow Statement, Income Statement and Balance Sheet) and the **financial indicators** built from them provide the evidence to judge whether the business is meeting its goals — and to act before a problem becomes fatal. This is precisely why accounting is described as playing an integral role in the success and management of a business.

The role of professionals

An owner does not have to make these decisions alone. The Study Design highlights the role of professionals in helping a business achieve success:

- **Accountants** record and report the business's financial data, interpret its indicators, and advise on finance, budgeting, pricing and tax obligations.
- **Business advisors** provide guidance on planning, marketing, strategy and operations, often before the business even commences.
- **Professional organisations** — industry associations, the professional accounting bodies that set standards and codes of ethics, and government small-business agencies — offer information, training and benchmarks.

Seeking advice *before* commencing — for example, testing a business plan and its forecast cash flows with an accountant — is one of the most effective ways to reduce the risk of early failure.

Ethical considerations

Ethical considerations. Business decisions are influenced **not only by financial considerations but also by ethical considerations, including those that are social and environmental in nature**, and these ethical considerations **often have a direct impact on the financial performance** of the business. An **ethical consideration** is a judgement about what is the *right* thing to do — beyond simply what is most profitable or even what is strictly legal. Every ethical decision can be looked at through three lenses that the Study Design names together: the **financial**, the **social** and the **environmental**.

- **Social** considerations concern the effect of the business's decisions on *people* — treating employees fairly (fair wages, safe working conditions), dealing honestly with customers and suppliers, refusing to source from suppliers who exploit their workers, and contributing to the community in which the business operates.
- **Environmental** considerations concern the effect on the *natural environment* — minimising waste and pollution, disposing of by-products responsibly, sourcing materials sustainably, and using energy and water efficiently.
- The **financial** dimension is the impact of these choices on the business itself: an ethical choice frequently **costs more in the short term** (a higher expense and lower short-term profit), while an unethical choice may lift short-term profit but expose the business to **fines, clean-up and legal costs, lost customers and lasting reputational damage** — so acting ethically is often the financially wiser course over the long term.

The conduct expected. Owners and the people who prepare a business's financial information are expected to act honestly and to obey the law: to record and report transactions truthfully, to pay a fair share of tax, to honour obligations to suppliers and employees, and never to mislead the users of the reports. For anyone preparing financial information, the Study Design sets out four professional values that must be maintained in all dealings:

- **Integrity** — being honest and straightforward in all professional relationships.
- **Impartiality** — not allowing bias or the interests of one party to override a fair judgement.
- **Objectivity** — basing judgements on evidence and fact, free of undue influence.
- **Confidentiality** — protecting information acquired in the course of the work and not using it improperly.

The financial implications for the reports. Where an ethical question touches the *recording and reporting* of transactions, the ethical failure and the accounting failure become one and the same. If an owner leaves a genuine loss out of the reports, records a private cost as a business expense, or overstates profit to obtain finance, the reports cease to be a **faithful representation** — they are no longer complete and neutral — and the deception is likely to be exposed, because independent observers can trace the figures back to their source documents. Ethical conduct in accounting is therefore not a soft extra: it is what makes the reported information trustworthy in the first place.

Worked model. Priya is deciding whether to start a new organic grocery or buy the established *Greenfield Grocers*, offered as a going concern for \$110 000 when the fair value of its identifiable net assets is \$85 000. She notices Greenfield keeps costs down by buying produce from a supplier that underpays its farm workers. Two layers sit on top of one another. **Commercially**, buying Greenfield brings immediate cash flow and a proven record but costs \$110 000 – \$85 000 = **\$25 000** in goodwill, against the lower outlay but slower, riskier build-up of starting fresh. **Ethically**, continuing with the underpaying supplier is a **social** consideration; switching to a fairly-paid supplier will raise costs

and cut short-term profit (a **financial** implication) but protects Priya's reputation and aligns the business with her values. A sound decision weighs both layers rather than the price alone.

Worked examples (scaffolded)

Example 1 — evaluate starting a new business against buying an existing one (extension — not assessed)

Maya is deciding whether to start a new cafe, *Fernbrook Coffee*, from scratch, or to buy the established *Willow Lane Cafe*. Starting Fernbrook would require a fit-out of \$60 000 and opening inventory of \$8 000, and it would open with no customers. Willow Lane is offered as a going concern for \$140 000, which includes \$95 000 of identifiable net assets (equipment, fittings and inventory) and the remainder as goodwill. Discuss the main advantages and disadvantages of each option for Maya, and identify the goodwill included in the Willow Lane price.

Working	Comment
Start-up outlay for Fernbrook = fit-out \$60 000 + opening inventory \$8 000 = \$68 000 , and no goodwill is paid.	Starting from scratch usually needs a lower initial outlay because no established reputation is being purchased.
Advantage of starting: Maya can design the location, brand and systems to her own vision, with no inherited problems (poor reputation, ageing equipment or unfavourable contracts).	State the benefit <i>and</i> say why it matters — that is what “discuss” rewards.
Disadvantage of starting: Fernbrook opens with no customer base, so revenue builds slowly and the risk of early cash-flow shortfalls is high; with no trading history, finance is harder to obtain.	The absence of a track record is the key risk of a brand-new business.
Goodwill in the Willow Lane price = purchase price – identifiable net assets = \$140 000 – \$95 000 = \$45 000 .	Goodwill is the amount paid <i>above</i> the fair value of the identifiable net assets — it buys the established customers and reputation.
Advantage of buying: Willow Lane brings immediate cash flow from an established customer base, a proven trading history (so finance is easier), and staff, suppliers and premises already in place.	The established customer base is the main reason a buyer is willing to pay goodwill.
Disadvantage of buying: the \$140 000 price is far higher than the \$68 000 start-up outlay; Maya pays \$45 000 for goodwill she must hope is justified, may inherit problems, and has less freedom to reshape the business.	Always weigh the higher price and the risk of overpaying for goodwill.

∴ starting Fernbrook is cheaper (\$68 000 versus \$140 000) and gives Maya full control but no customers, while buying Willow Lane costs more and includes \$45 000 of goodwill but delivers immediate cash flow and a proven record — the better choice depends on Maya's available finance, her appetite for risk and how she values an established customer base.

Example 2 — classify and discuss factors affecting success or failure

Coastline Surf Store has opened in a low-traffic side street, its owner has little retail experience, and although sales are reasonable the business is frequently short of cash because most of its inventory was bought with a large short-term loan. Identify whether each factor is financial or non-financial, and discuss how they combine to threaten the business's success.

Working	Comment
Low-traffic location — non-financial. A poor location reduces the number of customers who pass and enter the store.	Non-financial factors are qualities not measured directly in dollars.
Owner's limited retail experience — non-financial. Inexperienced management may misjudge buying, pricing and staffing.	Management skill is one of the most important non-financial factors.

Working	Comment
Frequent cash shortages — financial. Even with reasonable sales, the business cannot meet payments as they fall due.	Many profitable businesses fail because of poor cash flow , not a lack of profit.
Large short-term loan (high gearing) — financial. Heavy short-term borrowing raises interest costs and repayment pressure.	Over-reliance on debt is a common financial cause of failure.
How they combine: the poor location and inexperience (non-financial) hold sales down, while the short-term loan drains cash for repayments (financial) — the non-financial weaknesses feed the financial ones, so cash flow deteriorates and the business risks failure.	“Discuss” wants the links drawn, not just a labelled list.

∴ Coastline is threatened by a combination of non-financial factors (location, inexperience) and financial factors (cash-flow strain, high short-term debt); fixing only one group would not be enough, because the two reinforce each other.

Worked examples (unscaffolded)

Example 3 — an ethical (environmental) consideration when operating a business

Redgum Timber Supplies could cut its disposal costs by dumping treated timber offcuts in a nearby creek reserve rather than paying a licensed waste contractor. Discuss the ethical considerations involved.

This is primarily an **environmental** consideration: dumping treated timber pollutes the creek, harms wildlife and the reserve, and passes the cost of the business’s waste onto the community — so it is also a **social** consideration, because it damages a shared public asset. Ethical considerations of this kind sit alongside the purely financial ones. Although dumping would **save money in the short term** (lower disposal expense and higher short-term profit), the likely **financial implications** run the other way: illegal dumping exposes Redgum to substantial **finances**, the **cost of cleaning up** the reserve, and serious **reputational damage** that could drive away customers who value responsible sourcing. The honest and lawful course is to pay the licensed contractor and dispose of the offcuts responsibly, and — where possible — to reduce or recycle the waste at its source. ∴ the ethical decision is to bear the disposal cost rather than shift an environmental and social harm onto the community, a choice that also protects the business financially over the long term.

Example 4 — an ethical decision and its financial implications for the reports

Harvest Lane Grocers is choosing between two packaging suppliers: a recyclable, locally-made packaging at \$1.20 per unit, and a cheaper, imported, non-recyclable packaging at \$0.70 per unit. The business uses 12 000 units of packaging a year. Discuss the ethical considerations and quantify the financial implication of choosing the ethical option.

Choosing the recyclable, locally-made packaging is both an **environmental** consideration (less waste to landfill, a lower environmental footprint) and a **social** one (supporting local producers and local jobs). The **financial implication** is a higher packaging expense: the ethical option costs $(\$1.20 - \$0.70) = \$0.50$ more per unit, so over 12 000 units the extra annual cost is $\$0.50 \times 12\,000 = \$6\,000$. That \$6 000 raises expenses and lowers short-term profit, and it must be recorded faithfully — the temptation to disguise it, or to overstate profit elsewhere to compensate, would breach **faithful representation** and the owner’s obligation to report with **integrity**. Against the \$6 000 cost sit real benefits: many customers will pay for, or stay loyal because of, a business that packages responsibly, which can lift revenue and protect the business’s reputation over time. ∴ the ethical choice costs \$6 000 more a year and reduces short-term profit, but it may well strengthen the business’s long-term financial performance and, either way, must be recorded honestly in the reports.

Practice questions — scaffolded

Question 1 (extension — not assessed)

Jordan is choosing between starting a new hardware store from scratch or buying the established *Ironbark Hardware*. Starting would require a shop fit-out of \$35 000, equipment of \$25 000 and opening inventory of \$10 000. Ironbark is offered as a going concern for \$150 000, which includes \$40 000 of goodwill.

- Calculate the total start-up outlay for the new store.
- Calculate the fair value of Ironbark's identifiable net assets.
- State one advantage and one disadvantage of buying Ironbark rather than starting a new store.

Question 2 (extension — not assessed)

- Distinguish between starting a new business and buying an existing business.
- State two advantages of starting a new business from scratch.
- State two advantages of buying an existing business.

Question 3 (extension — not assessed)

- Define **goodwill**.
- Explain why the buyer of an existing business is usually willing to pay for goodwill.
- Explain one risk of paying for goodwill when buying a business.

Question 4

- Distinguish between a **financial** factor and a **non-financial** factor affecting business success.
- Classify each of the following as financial or non-financial: cash flow management; store location; level of gearing; quality of customer service.
- Explain how a non-financial factor can cause a financial problem for a business.

Question 5

- Identify three types of professionals or organisations that can provide advice to a business owner.
- Explain one way an accountant can help a business achieve success.
- Explain why an owner might seek professional advice *before* commencing a business.

Question 6

- Define what is meant by an **ethical consideration** in business.
- State one **social** and one **environmental** ethical consideration a business owner might face.
- Explain how acting ethically might reduce a business's short-term profit yet benefit it in the long term.

Practice questions — unscaffolded

Question 7 (extension — not assessed)

Marlow Bakery is bought as a going concern for \$180 000, when the fair value of its identifiable net assets is \$120 000. Calculate the goodwill, and explain what that goodwill represents and why the buyer was willing to pay it.

Question 8 (extension — not assessed)

A first-time owner with limited savings and no trading experience is deciding whether to start a new business or to buy an established one. Discuss which option might better suit this owner, justifying your answer.

Question 9

Explain, with reference to **cash flow**, why a business can be profitable and yet still fail.

Question 10

Discuss how the owner's **management** experience and the business's **location** can each affect its success or failure.

Question 11

Explain how accounting reports and financial indicators can help an owner judge whether a business is succeeding or failing.

Question 12

Discuss the role that professionals such as **accountants** and **business advisors** can play in helping a new business succeed.

Question 13 (ethics — discuss)

Summit Apparel can lower its costs by sourcing garments from an overseas supplier known to pay its workers well below a living wage. Discuss the ethical considerations the owner faces, including the **social** considerations involved and the possible financial implications of the decision.

Question 14

When negotiating the sale of an existing business, the seller presents figures that overstate the business's recent profit. Explain the ethical and financial risks this creates for the buyer, and state one way the buyer could protect themselves before agreeing to the purchase.

Question 15

Two cafes open in the same suburb in the same month; within a year one is thriving and the other has closed. Discuss the financial and non-financial factors that might explain the different outcomes.

Question 16 (ethics — evaluate)

Delta Manufacturing could save \$4 000 a year in disposal costs by releasing untreated waste water into a stormwater drain instead of treating it first. Evaluate this decision, referring to environmental and financial considerations and the possible impact on the business's reports and reputation.

Question 17 (ethics)

Brightleaf Tea is choosing between an ethically-certified supplier at \$14 per kilogram and an uncertified supplier at \$11 per kilogram, and expects to buy 5 000 kilograms a year. Calculate the additional annual cost of choosing the certified supplier, and discuss whether that higher cost is justified.

Question 18 (ethics — discuss)

The owner of *Cedar & Co* asks the bookkeeper to record the owner's private overseas holiday as a "business travel" expense so that the business's reported profit — and therefore its tax — is reduced. Discuss the ethical considerations, referring to the conduct expected of those who prepare financial information and to the financial implications for the reports.

Answers

1.
 - a. \$70 000 b. \$110 000 c. advantage e.g. immediate cash flow / proven record; disadvantage e.g. higher price (pays \$40 000 goodwill) / inherited problems
2.
 - a. starting = build from scratch; buying = purchase an established going concern b. e.g. freedom to design it + no inherited problems / lower outlay c. e.g. immediate cash flow + proven trading history
3.
 - a. the excess of purchase price over the fair value of identifiable net assets (reputation/earning capacity)
b. it buys an established customer base and reputation → immediate cash flow c. risk of overpaying for earning capacity that is not really there
4.
 - a. financial = measured in dollars; non-financial = a quality not measured in dollars b. financial: cash flow, gearing; non-financial: location, customer service c. e.g. poor service → lost sales → cash-flow strain
5.
 - a. accountants; business advisors; professional organisations b. e.g. interpret indicators / advise on finance and cash flow c. to test the plan and forecasts and reduce the risk of early failure
6.
 - a. a judgement about the right thing to do, beyond what is merely profitable or legal b. social e.g. fair wages; environmental e.g. minimise pollution c. higher costs now, but reputation/loyalty/lower legal risk later
7. Goodwill \$60 000
8. See solutions (buying may suit better — immediate cash flow, systems and finance easier — but the limited savings are a real constraint; justified either way)
9. See solutions (profit ≠ cash; timing of receipts/payments)
10. See solutions (management drives every decision; location drives customer numbers)
11. See solutions (reports + indicators give evidence to judge and act)
12. See solutions (advice on planning, finance, indicators, strategy)
13. See solutions (social/exploitation; short-term saving vs reputation and long-term cost)
14. See solutions (overstated profit misleads the buyer; verify with independent records/due diligence)
15. See solutions (financial + non-financial factors combined)
16. See solutions (environmental harm, fines/clean-up, reputation vs \$4 000 saving)
17. Additional cost \$15 000
18. See solutions (private cost is Drawings, not an expense; expenses overstated, profit understated and Drawings understated, so total owner's equity is unchanged; breaches faithful representation; conduct)

Fully-worked solutions

Question 1

- a. Total start-up outlay = fit-out \$35 000 + equipment \$25 000 + opening inventory \$10 000 = **\$70 000**.
- b. Ironbark is offered for \$150 000 including \$40 000 goodwill, so the fair value of its identifiable net assets = \$150 000 – \$40 000 = **\$110 000**.
- c. **Advantage** of buying Ironbark: it brings an established customer base and immediate cash flow, with staff, suppliers and premises already in place and a trading history that makes finance easier to obtain.
Disadvantage: the \$150 000 price is more than twice the \$70 000 start-up outlay and includes \$40 000 of goodwill, and Jordan may inherit problems (an ageing store, a tired brand) and has less freedom to reshape the business than if it were started new.

Question 2

- a. **Starting** a new business means establishing a brand-new operation from scratch — choosing the location, acquiring the assets and building the customer base from zero. **Buying** an existing business means purchasing a business that is already trading as a going concern, usually including its assets, customers and reputation.
- b. Advantages of starting new: (i) **freedom to design** the location, structure, systems and brand to suit the owner's own vision; and (ii) **no inherited problems** — no risk of taking on a poor reputation, obsolete inventory or unfavourable contracts — often at a **lower initial outlay** because no goodwill is paid.
- c. Advantages of buying existing: (i) **immediate cash flow** from an established customer base; and
(ii) a **proven trading history**, which makes finance easier to obtain and future results easier to forecast, with staff, suppliers and systems already in place.

Question 3

- a. **Goodwill** is the excess of the purchase price of a business over the fair value of its identifiable net assets — it represents the value of the business's reputation, customer loyalty and established earning capacity, above and beyond its identifiable assets.
- b. The buyer is willing to pay for goodwill because it buys an **established customer base and reputation** that would otherwise take years to build: the business earns revenue and cash flow from day one instead of starting from zero, so the buyer is paying for that head start in earning capacity.
- c. The main risk is **overpaying**: goodwill is an estimate of future earning capacity, not a physical asset. If the customer base is less loyal, or the reputation less valuable, than the seller's figures suggest, the buyer will have paid for earning capacity that does not eventuate — money that cannot be recovered.

Question 4

- a. A **financial** factor is one measured directly in dollars (such as cash flow, pricing or the level of debt), whereas a **non-financial** factor is a quality of the business not measured directly in dollars (such as location, management skill or customer service).
- b. **Cash flow management — financial. Store location — non-financial. Level of gearing — financial. Quality of customer service — non-financial.**
- c. A non-financial factor frequently causes a financial problem because the two are linked. For example, poor **customer service** (non-financial) drives customers away, which reduces sales revenue and therefore weakens **cash flow** (financial); left unaddressed, the cash shortage can make the business unable to pay its debts even though the original weakness was not a “money” problem at all.

Question 5

- a. **Accountants, business advisors and professional organisations** (such as industry associations, the professional accounting bodies, and government small-business agencies).
- b. An **accountant** can help by preparing and interpreting the business's reports and financial indicators — for example, monitoring cash flow and advising on pricing, budgeting, finance and tax obligations — so the owner can identify problems early and make informed decisions that improve performance.
- c. Seeking advice **before commencing** lets the owner test the business plan and its forecast cash flows with an expert, identify weaknesses (such as undercapitalisation or an unrealistic price) and correct them *before* committing money — one of the most effective ways to reduce the high risk of early failure.

Question 6

- a. An **ethical consideration** is a judgement about what is the *right* thing to do when making a business decision — a consideration that goes beyond what is simply the most profitable or even what is strictly legal, and that includes social and environmental effects as well as financial ones.
- b. A **social** consideration: paying employees a fair wage and providing safe working conditions (or refusing to source from a supplier that exploits its workers). An **environmental** consideration: minimising the business's waste and pollution and disposing of by-products responsibly.

- c. Acting ethically often raises costs now — a fairer wage, a cleaner process or a more responsible supplier is usually more expensive — which **reduces short-term profit**. In the long term, however, it protects the business from **fines, clean-up and legal costs and reputational damage**, and builds customer loyalty and staff commitment, so the ethical choice frequently improves financial performance over time.

Question 7

Goodwill = purchase price – fair value of identifiable net assets = \$180 000 – \$120 000 = **\$60 000**. The \$60 000 of goodwill represents the value of *Marlow Bakery's reputation, loyal customer base and established earning capacity* — the part of the price not attributable to any identifiable asset. The buyer was willing to pay it because those intangibles deliver **immediate cash flow and a proven trading history**: buying them costs \$60 000 now but saves the years of effort and uncertainty involved in building a customer base from scratch.

Question 8

For a first-time owner with **no trading experience**, buying an established business has real appeal: it comes with tested systems, trained staff, existing suppliers and — above all — an **established customer base and trading history**, so the owner is not trying to learn how to run the business *and* attract customers at the same time, and the proven record makes finance easier to obtain. Against this, the owner has **limited savings**, and buying an existing business usually costs more because of **goodwill**, so finance may be hard to raise and the risk of overpaying is real. Starting new would cost less up front and give full control, but it demands that an inexperienced owner build everything from zero, with the high early-failure risk that entails. On balance, buying a **sound, modestly-priced** existing business is likely to suit this owner better *if* it can be financed, because it offsets the owner's inexperience with ready-made systems and customers; if the savings simply will not stretch to a fair price, a small, low-cost start-up may be the only realistic option. The justified answer is that buying suits the *lack of experience*, but the *limited savings* are the binding constraint — so the decision turns on whether affordable, genuine finance can be arranged.

Question 9

Profit and cash are not the same thing. Profit is revenue *earned* less expenses *incurred* for a period (the accrual basis), whereas cash flow is the actual movement of money in and out. A business can report a healthy profit yet fail because it runs out of **cash** to pay its debts as they fall due — for example, if it sells on credit and customers are slow to pay, if it has tied up cash in inventory or new equipment, or if it must repay a large loan. When cash owing to suppliers, employees, lenders and the tax office cannot be met on time, the business may be forced to close **even though it is profitable on paper**. This is why managing the *timing* of receipts and payments — not just earning a profit — is essential to survival.

Question 10

The owner's **management** experience affects success or failure because management drives nearly every other decision the business makes: an experienced owner is more likely to buy and price sensibly, control costs, manage cash flow, hire and keep good staff, and respond well to problems, whereas an inexperienced owner is more likely to misjudge these and to react too slowly. **Location** affects success because, particularly for a retail or service business, it determines how many potential customers pass by and can conveniently reach the business: a high-traffic, accessible, visible site brings customers in, while a poor location suppresses sales no matter how good the product is. The two often interact — skilled management will choose a good location in the first place and market effectively around a weaker one — so together they are among the most powerful non-financial influences on whether a business thrives or fails.

Question 11

Accounting reports and financial indicators turn the question “is the business succeeding or failing?” from guesswork into evidence. The **Cash Flow Statement** shows whether the business is generating enough cash to sustain itself; the **Income Statement** shows whether it is earning a profit and how expenses compare with revenue; and the **Balance Sheet** shows its assets, liabilities and the owner's equity. **Financial indicators** built from these reports (such as profitability and liquidity measures) let the owner compare performance against previous periods, against budget and against other businesses, and so **identify trends and problems early** — a falling profit margin, a worsening cash position or rising debt — while there is still time to act. Used this way, accounting provides the information on which

the owner makes operating and investment decisions to improve performance, which is exactly why accounting is described as integral to the successful management of a business.

Question 12

Professionals can materially raise a new business's chance of success. An **accountant** sets up the recording system, prepares and interprets the reports and indicators, and advises on cash flow, budgeting, pricing, finance and tax — helping the owner see problems coming and make informed decisions rather than reacting too late. A **business advisor** brings expertise in planning, marketing, strategy and operations, often *before* the business commences, helping the owner test the business plan, refine the value proposition and avoid common mistakes. **Professional organisations** add industry benchmarks, training and standards. Because the owner of a new business is inexperienced and stretched across every part of the operation, drawing on these professionals fills gaps in the owner's own knowledge and is one of the most reliable ways to reduce the high risk of early failure — the key limitation being that advice costs money, so it must be used where it adds the most value.

Question 13

Sourcing from a supplier that pays its workers well below a living wage is chiefly a **social** ethical consideration: the business would be profiting from the **exploitation of vulnerable workers**, which most people would judge to be wrong even where it is lawful. Set against this is the **financial** attraction — lower costs and higher short-term profit. But the financial implications are not one-sided. If customers, the media or advocacy groups learn that *Summit Apparel* relies on underpaid labour, the resulting **reputational damage and loss of customers** can cut revenue far more than the cost saving is worth, and retailers increasingly refuse to stock such goods. Weighing the considerations together, the ethical course is to source from suppliers who pay fairly (or to audit and require improvement from the existing supplier), accepting a higher cost in exchange for treating workers decently and protecting the business's reputation and long-term performance. The short-term saving does not justify profiting from exploitation, and it carries real financial risk of its own.

Question 14

If the seller overstates recent profit, the buyer is being **misled into paying too much** — most likely paying for **goodwill** (earning capacity) that does not really exist — so the buyer risks purchasing a business that cannot deliver the cash flow the figures imply. Ethically, the seller is breaching the honesty expected in business dealings, and the overstated figures are not a **faithful representation** of the business. Financially, the buyer could commit their savings and take on debt on the strength of false information, then find the business unable to meet those commitments. To protect themselves, the buyer should **carry out due diligence** — for instance, insist on inspecting the **source documents** and bank records behind the reported figures, and have an **independent accountant** verify the profit and cash flows — because verifiable evidence, checked by an independent party, is what exposes an overstated figure before the purchase is agreed.

Question 15

Because the two cafes share the same suburb and opening month, the different outcomes must come from factors specific to each business, and these are usually a **mix of financial and non-financial** ones. On the **non-financial** side, the thriving cafe may have a better **location** within the suburb (more foot traffic and visibility), more experienced **management**, stronger **customer service** and more effective **marketing**, while the failed cafe may have suffered the opposite. On the **financial** side, the survivor may have started with **adequate finance** (avoiding **undercapitalisation**), priced to cover costs and earn a margin, controlled its costs and managed its **cash flow**, whereas the failed cafe may have been **undercapitalised**, over-borrowed (high **gearing**), mispriced its menu or simply run out of cash. Crucially, the two groups interact: weak non-financial performance (say, poor service and a hidden location) depresses sales, which then produces the **cash-flow** failure that actually closes the business. The different outcomes are therefore best explained not by any single cause but by how these financial and non-financial factors combined in each cafe.

Question 16

Releasing untreated waste water into a stormwater drain is an **environmental** wrong: it pollutes waterways and harms the ecosystem and the community that relies on them, and it is almost certainly unlawful. Evaluated purely on the numbers, the \$4 000 annual saving is small and highly likely to be **outweighed by the financial risks**: **Delta Manufacturing** would be exposed to substantial **finances**, the **cost of environmental clean-up**, and possible legal action,

any one of which could dwarf \$4 000. There is also a **reporting and reputational** dimension — a business caught polluting suffers lasting damage to its reputation and may lose customers and contracts, and if it tried to conceal the practice or its costs the reports would cease to be a **faithful representation**. Weighing the modest saving against the environmental harm, the legal and financial exposure and the reputational risk, the decision to dump the waste water is **not justified**: the business should treat its waste water properly, accept the \$4 000 cost, and if possible invest to reduce the volume of waste at its source. A \$4 000 saving is never worth the environmental, legal and reputational cost of polluting.

Question 17

Additional annual cost = $(\$14 - \$11) \text{ per kilogram} \times 5\,000 \text{ kilograms} = \$3 \times 5\,000 = \mathbf{\$15\,000}$. Whether the extra \$15 000 is justified depends on weighing the **ethical (social and environmental) benefits** of the certified supplier — assurance that the tea is produced under fair labour and sustainable conditions — against the higher cost, which **reduces short-term profit** by \$15 000. It is likely to be justified if *Brightleaf Tea*'s customers value ethical certification and will pay for it or remain loyal because of it, so that the certification protects or increases revenue and reputation; the premium is harder to justify if customers are indifferent and the \$15 000 simply erodes a thin margin without any offsetting benefit. On balance, for a business whose brand rests on quality and responsibility, the \$15 000 is usually a worthwhile investment in reputation and long-term performance rather than a pure cost — but the decision should be made deliberately, weighing the ethical benefit against the financial impact, not by price alone.

Question 18

Recording the owner's **private** holiday as a "business travel" expense is unethical on several counts. Under the **accounting entity** assumption the holiday is a **private** cost of the owner — it should be recorded as **Drawings**, not as a business expense — so disguising it as "business travel" makes the reports untrue. This breaches **faithful representation**: the reports would no longer be **complete and neutral**, because a private cost of the owner has been presented as a cost of running the business. The bookkeeper is also bound by the conduct expected of anyone preparing financial information — to act with **integrity** and **objectivity** and not to mislead the users of the reports — and here the deception has a further unlawful purpose, **understating profit to reduce the tax payable on it**, which is tax evasion. The **financial implications for the reports** are precise: in the Income Statement **expenses are overstated** and **profit is understated** by the cost of the holiday, while **Drawings are understated** by that same amount. Because those two understatements cancel exactly, **total owner's equity is unchanged** — and the accounting equation still balances, since cash has left the bank under either treatment — but the individual figures are wrong, and the Income Statement no longer reports the profit the business actually earned. Because independent observers and auditors can trace the figures back to the **source documents**, the false entry is likely to be **detected**, exposing both the owner and the bookkeeper to penalties. The bookkeeper should **decline** to record the holiday as a business expense, explain that it must be treated as **Drawings**, and refuse to become complicit in producing misleading reports — the short-term tax saving does not outweigh the professional and legal obligation to report honestly.

Chapter 3 Business ownership — 3D Alternative investment opportunities

Theory

Establishing and running a business is not the only way to put money to work. A person with funds to invest is always making a **choice between alternatives**: they could start a business, or they could place the same money in **cash** (a savings account or term deposit), in **property**, in **shares**, or in **cryptocurrency**. Each of these alternatives is an **investment** — an outlay made now in the expectation of a **return** later — and each behaves differently.

Understanding how they compare helps a prospective owner judge whether establishing a business is really the best use of their money, and it introduces the language of **return, risk, liquidity and time horizon** that runs through the rest of accounting.

Four ways to describe any investment. Before comparing the options, it helps to define the four qualities used to describe every one of them:

- **Expected return** — the reward the investor expects to earn, made up of **income** (interest, rent or dividends received along the way) and **capital growth** (an increase in the value of the asset itself). A return can also be **negative** if the asset falls in value.
- **Risk** — the chance that the actual return differs from the expected return, including the chance of **losing part or all of the capital** invested. A **higher expected return almost always comes with higher risk**: this **risk–return relationship** is the single most important idea in the topic.
- **Liquidity** — how quickly and cheaply the investment can be **converted back into cash** without losing value. A savings account is highly liquid; a house is not.
- **Time horizon** — how **long** the money is expected to stay invested. Some options suit a short-term goal (a holiday, a car); others only make sense over many years (retirement).

Measuring the return. The **return** on an investment for a period is the **income earned plus the capital gain** (or minus the capital loss):

total return = income (interest / rent / dividends) + capital gain

capital gain = end value (or net sale proceeds) – amount invested

To compare investments of different sizes, the return is expressed as a percentage of the amount invested — the **rate of return** (also called the *return on investment*):

rate of return (%) = (total return ÷ amount invested) × 100

Cash — savings accounts and term deposits. Depositing money with a bank is the **lowest-risk** option. A **savings account** pays a modest rate of **interest** and lets the holder withdraw at any time. A **term deposit** locks the money away for a fixed term (say 6 or 12 months) in return for a slightly **higher** interest rate; withdrawing early usually forfeits some interest. Interest is calculated as **principal × rate × time**, so a \$10 000 deposit at 5% per annum earns \$500 over a full year, or half that (\$250) over six months. Cash pays **income only** — there is **no capital growth**, because \$10 000 deposited is still \$10 000 of capital at the end. In Australia, deposits with an authorised bank are protected by a government guarantee up to a set limit per institution, so the capital is very secure. Cash is therefore **very low risk, highly liquid** and suited to a **short** time horizon, but its return is **low** and, after inflation, sometimes barely positive.

Property. Buying residential or commercial **real estate** as an investment earns a return from two sources: **rent** received from a tenant (income) and **capital growth** as the property's value rises over time. Against the rent the investor must set the **expenses** of owning the property — council rates, insurance, repairs, agent's management fees and, if borrowed, loan interest — so the **net rental income** can be small or even negative. Property is a **long-term** investment with **moderate** risk: values can fall, tenants can leave a property vacant, and interest-rate rises lift the cost of any loan. Its greatest drawback is **low liquidity** — selling takes weeks or months and carries **high transaction costs** (stamp duty on purchase, agent's commission and legal fees on sale), so property cannot be turned quickly into cash without loss.

Shares. A **share** is a unit of **part-ownership** in a company. An investor who buys shares in a company listed on the **Australian Securities Exchange (ASX)** earns a return from **dividends** (a share of the company's profit, usually paid

as cents per share) and from **capital growth** if the share price rises. Shares offer a **potentially high return** over the medium to long term, but they carry **high risk**: share prices move up and down daily, a company can cut or cancel its dividend, and in the worst case the company can fail and the shares become worthless. Offsetting this, listed shares are **highly liquid** — they can be bought and sold within days through a broker — though each trade usually incurs a small **brokerage** fee that reduces the net return.

Cryptocurrency. A **cryptocurrency** is a **digital asset** recorded on a decentralised ledger (a blockchain) rather than issued by a government or bank. It pays **no income** — no interest, rent or dividend — so the **entire return depends on capital growth**, i.e. whether the price rises or falls. Prices are **extremely volatile**, swinging by large percentages in short periods, and the asset is largely **unregulated**, with **no government guarantee** and real risks of hacking, scams and lost access. Cryptocurrency is therefore the **highest-risk, most speculative** option here: it can produce a very large gain or a very large loss, and it is unsuited to an investor who cannot afford to lose the capital.

Comparing the alternatives with business ownership. Establishing a business is itself an investment, but an **active** one: it can offer a **high return** (the owner keeps the profit), yet it demands the owner's **time, skill and effort**, carries **high risk** (many new businesses fail), and is **very illiquid** — a business cannot be sold quickly for a certain price. The cash, property, share and crypto options are largely **passive** by comparison. The table below summarises how the five choices line up on the four qualities:

Investment	Expected return	Risk	Liquidity	Time horizon
Cash (savings / term deposit)	Low	Very low	High	Short
Property	Moderate to high	Moderate	Low	Long
Shares	High (variable)	High	High	Medium to long
Cryptocurrency	Very high or very negative	Very high	Variable	Speculative
Own business	Potentially high	High	Low	Long

Ethical considerations. Where an investor puts their money is increasingly treated as an **ethical** decision, not only a financial one. **Ethical (or sustainable / responsible) investing** means choosing investments partly on their **social and environmental impact** — for example, favouring companies with strong environmental records or fair labour practices and avoiding those involved in activities the investor regards as harmful, such as fossil fuels, gambling or weapons. An investor may accept a **lower or less certain return** in exchange for aligning their money with their values, so ethical investing can involve a genuine **trade-off** against the risk–return relationship. It also raises the problem of **greenwashing** — where an investment is marketed as “green” or “ethical” but does not truly meet those claims — which makes the **verifiability** and **faithful representation** of the information provided to investors critically important. There are ethical questions specific to the options above, too: cryptocurrency mining can consume very large amounts of electricity, and some crypto schemes are outright **scams** designed to mislead inexperienced investors. An investor weighing these alternatives should consider not just what return they might earn, but whether the investment is honestly represented and consistent with the standards they wish to uphold.

Worked model. Ruby has \$5 000 to invest for one year. She buys **2 000 shares at \$2.50 each** (\$5 000). During the year she receives **\$150 in dividends**, and at year-end she sells the shares for **\$2.85 each** (\$5 700). Her **capital gain** is $\$5\,700 - \$5\,000 = \$700$, so her **total return** is $\$150 + \$700 = \$850$ and her **rate of return** is $\$850 \div \$5\,000 \times 100 = 17\%$. Had Ruby instead placed the same \$5 000 in a **12-month term deposit at 4% per annum**, she would have earned **\$200** of interest and **no capital gain** — a **4% return** — but with none of the risk that the shares might have fallen in value. The schedule below sets the two side by side:

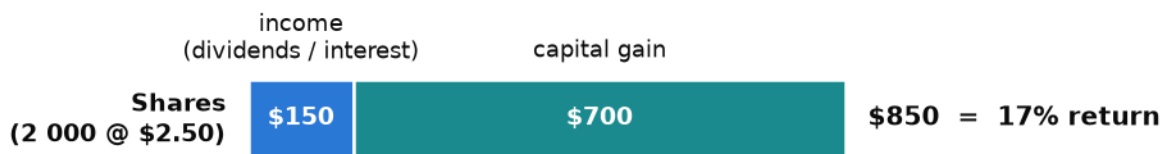
Investment (\$5 000)	Income \$	Capital gain \$	Total return \$	Rate of return
Shares (2 000 @ \$2.50)	150	700	850	17%
12-month term deposit (4%)	200	0	200	4%

The shares returned more, but only because Ruby accepted the risk of a loss; the term deposit returned less, but its capital and its return were both secure. This is the risk–return relationship in a single comparison.

Drawn to scale — one dollar of return is the same length in both bars — the comparison also shows *where* each return came from:

Ruby's \$5 000 for one year

Where each return came from — one dollar of return is the same length in both bars



no capital growth — \$5 000 deposited is still \$5 000

the shares returned \$650 more, but \$700 of that was capital growth the market could just as easily have taken away; the term deposit's \$200 was certain. That is the risk-return relationship in one comparison.

Ruby's \$5 000 for one year — where each return came from, income against capital growth

The term deposit's whole return is **income**, and income is the certain part: the \$200 was fixed by the rate the day Ruby opened it. Most of the shares' return (\$700 of the \$850) is **capital growth**, which is the uncertain part — had the price fallen to \$2.15 instead of rising to \$2.85, that segment would have been a capital *loss* and the total return negative. The extra \$650 is not free money; it is the payment for accepting that possibility.

Setting all five alternatives on the same two axes shows the pattern that governs the whole topic:

Five ways to invest \$1



Circle size = liquidity (how quickly the investment converts to cash). Positions are the ranked descriptions in this section's comparison table, not measured values.

Five ways to invest \$1 — the risk–return relationship

The options line up along a rising diagonal: cash sits low on both axes, cryptocurrency high on both, and property, shares and a business of one's own in between. That slope **is** the risk–return relationship — a higher expected return is not something an investor simply chooses, it is something they buy by accepting a wider range of possible outcomes. The circle sizes carry the third quality, **liquidity**, and show that it varies independently: shares are high-risk yet highly liquid, while property is only moderately risky but hard to convert to cash quickly. (Positions on this figure come from the ranked descriptions in the comparison table above, not from measured data — there is no scale on either axis.)

Worked examples (scaffolded)

Example 1 — interest on cash: a term deposit versus a savings account

Devi has \$12 000 to invest for one year. Her bank offers a **12-month term deposit at 5% per annum** or an **online savings account at 3.5% per annum** from which she can withdraw at any time. She wants to compare the interest earned, and also to know what the term deposit would pay if she needed the money back after only six months.

Working	Comment
Term deposit interest = $\$12\,000 \times 5\% = \600 for the year.	Interest = principal $\times$ rate $\times$ time. Over a full year the time factor is 1.
Term deposit rate of return = $\$600 \div \$12\,000 \times 100 = 5\%$.	For cash the rate of return equals the interest rate, because there is no capital gain.
Savings account interest = $\$12\,000 \times 3.5\% = \420 for the year.	The savings rate is lower — the price of being able to withdraw at any time.
The term deposit earns $\$600 - \$420 = \$180$ more over the year.	The extra \$180 is the reward for locking the money away for the full term.
Term deposit for six months = $\$12\,000 \times 5\% \times 6/12 = \300 .	Half a year earns half the annual interest. Breaking the term early would usually forfeit some of this.

∴ the term deposit pays \$180 more over a year, but only if Devi can leave the money untouched; the savings account pays less yet keeps the funds fully liquid. The choice turns on her **time horizon** and how likely she is to need the cash.

Example 2 — return on shares: dividends plus a capital gain

Owen buys **800 shares** in a listed company at **\$2.50 each** and holds them for one year. During the year the company pays a dividend of **15 cents per share**. At year-end Owen sells all 800 shares for **\$3.10 each**. Calculate his total return and rate of return (ignore brokerage).

Working	Comment
Amount invested = $800 \times \$2.50 = \$2\,000$.	The initial outlay — the base for the rate of return.
Dividends (income) = $800 \times \$0.15 = \120 .	Dividends are usually quoted as cents per share; multiply by the number of shares.
Sale proceeds = $800 \times \$3.10 = \$2\,480$; capital gain = $\$2\,480 - \$2\,000 = \$480$.	Capital gain = end value – amount invested.
Total return = $\$120 + \$480 = \$600$.	Income plus capital gain.
Rate of return = $\$600 \div \$2\,000 \times 100 = 30\%$.	A high return — but it depended on the share price rising, which was not guaranteed.

∴ Owen earned \$600 (30%) on his \$2 000, from \$120 of dividends and a \$480 capital gain. Had the share price *fallen* to, say, \$2.20, the capital loss would have wiped out the dividends and produced a negative return — the risk that accompanies the higher expected return of shares.

Worked examples (unscaffolded)

Example 3 — return on a property investment

An investor buys an apartment for **\$400 000** as a rental property. Over the following year the property is rented for **\$1 600 per month**, and the investor pays **\$6 400** in rates, insurance, repairs and management fees. At year-end the apartment is valued at **\$416 000**. Calculate the net rental income, the capital gain, the total return and the rate of return.

Annual rent = $\$1\,600 \times 12 = \$19\,200$, so **net rental income** = $\$19\,200 - \$6\,400 = \$12\,800$. The **capital gain** = $\$416\,000 - \$400\,000 = \$16\,000$. The **total return** = $\$12\,800 + \$16\,000 = \$28\,800$, and the **rate of return** = $\$28\,800 \div \$400\,000 \times 100 = 7.2\%$.

∴ the property returned 7.2% over the year, from \$12 800 of net rent and \$16 000 of capital growth. The return is solid, but the investor could not have converted the apartment to cash quickly, and the figure above ignores the stamp duty and legal costs paid on purchase, which a full analysis would include.

Example 4 — return on cryptocurrency: a capital loss

An investor buys **0.5 of a unit** of a cryptocurrency at **\$60 000 per unit**, a total outlay of **\$30 000**. The cryptocurrency pays no income. One year later the price has fallen to **\$42 000 per unit**. Calculate the return and the rate of return.

Because cryptocurrency pays no interest, rent or dividend, the **income is nil** and the entire return is the capital gain or loss. The holding is now worth $0.5 \times \$42\,000 = \$21\,000$, so the **capital loss** = $\$21\,000 - \$30\,000 = -\$9\,000$. The **total return** is therefore **−\$9 000**, a **rate of return** of $-\$9\,000 \div \$30\,000 \times 100 = -30\%$.

∴ the investor lost \$9 000 — 30% of the capital — in a single year, with no income to cushion the fall. The same volatility that can deliver a large gain can just as easily deliver a large loss, which is why cryptocurrency is the highest-risk option of the four.

Practice questions — scaffolded

Question 1

Sana invests \$15 000 in a **12-month term deposit at 4% per annum**.

- Calculate the interest Sana earns over the year.

- b. State the rate of return on the term deposit.
- c. Explain, in one sentence, why the return on a term deposit is lower than the expected return on shares.

Question 2

Leo has \$9 000 to invest. He compares an **online savings account at 3% per annum** with a **6-month term deposit at 4% per annum**.

- a. Calculate the interest earned in the savings account over one year.
- b. Calculate the interest earned in the 6-month term deposit.
- c. State which of the two options is more **liquid**, and explain why in one sentence.

Question 3

Nadia buys **1 000 shares** at **\$3.00 each**. During the year she receives a dividend of **12 cents per share**, and at year-end she sells the shares for **\$3.45 each** (ignore brokerage).

- a. Calculate the total dividends Nadia receives.
- b. Calculate the capital gain on the shares.
- c. Calculate the rate of return on the investment.

Question 4

An investor buys a unit for **\$350 000**. Over one year the unit earns **\$21 000** in rent and incurs **\$7 000** in expenses, and at year-end it is valued at **\$360 500**.

- a. Calculate the net rental income.
- b. Calculate the capital gain.
- c. Calculate the rate of return on the property.

Question 5

An investor buys cryptocurrency for **\$8 000**. At year-end the holding is worth **\$6 800**.

- a. State the income (interest, rent or dividends) the cryptocurrency paid during the year.
- b. Calculate the capital gain or loss on the investment.
- c. Calculate the rate of return.

Question 6

Consider the four investment options of this section: cash, property, shares and cryptocurrency.

- a. Rank **cash, shares and cryptocurrency** from lowest to highest risk.
- b. State which of **property** and **shares** is more liquid, and explain your answer in one sentence.
- c. State the **risk–return relationship** in one sentence.

Practice questions — unscaffolded

Question 7

Priya invests \$20 000 in a **12-month term deposit at 4.75% per annum**. Calculate the interest earned and the balance at maturity. Then calculate the interest she would earn if she instead invested the same amount for **3 months** at the same rate.

Question 8

An investor buys **300 shares** at **\$6.60 each** and pays **\$20** brokerage on the purchase. During the year the shares pay a dividend of **30 cents per share**. At year-end the investor sells all 300 shares for **\$7.40 each**, paying a further **\$20**

brokerage on the sale. Calculate the total outlay, the dividends received, the net sale proceeds, the total return and the rate of return (base the rate on the total outlay including the purchase brokerage).

Question 9

An investor buys a house for **\$500 000**. Over the year the house earns **\$24 000** in rent but incurs **\$28 000** in expenses (including loan interest). At year-end the house is valued at **\$530 000**. Calculate the net rental income, the capital gain, the total return and the rate of return, and comment on what is driving the return.

Question 10

Aisha and *Ben* each have \$10 000 to invest for one year. Aisha places hers in a **term deposit at 5% per annum**. Ben buys shares; over the year he receives **\$300** in dividends and the shares rise in value by **\$900**. Calculate the total return and the rate of return for each investor, state who earned the higher return, and identify the trade-off Ben accepted to earn it.

Question 11

An investor buys **200 tokens** of a cryptocurrency at **\$25 each**. After six months the tokens are worth **\$40 each**; a year after purchase they are worth **\$18 each**. Calculate the value of the holding and the capital gain or loss at **six months** and at **twelve months**, and calculate the **12-month rate of return**. Comment on what the two figures show about cryptocurrency as an investment.

Question 12

An investor with **\$16 000** compares three options for the coming year: (i) a **term deposit at 4.5% per annum**; (ii) **shares** expected to pay **\$640** in dividends and to rise **\$1 120** in value; and (iii) **cryptocurrency** expected to fall in value by **\$2 400**. Calculate the total return and the rate of return for each option, and rank them from highest to lowest expected rate of return.

Question 13

Marcus has **\$60 000** and is deciding between (i) a **term deposit at 5% per annum** and (ii) using the money to **establish a small business** that is expected to earn a profit of **\$12 000** in its first year but would require Marcus to work in it full-time. Calculate the rate of return of the term deposit and the rate of return implied by the business's expected profit, and **discuss** two factors — beyond the headline rate of return — that Marcus should weigh before choosing the business.

Question 14

Explain what is meant by the **liquidity** of an investment. Then rank **cash, property and shares** from most to least liquid, giving a reason for the ranking.

Question 15

Describe the **expected return** and the **level of risk** of (i) a **term deposit** and (ii) **cryptocurrency**, and explain the **risk–return relationship** that the contrast between them illustrates.

Question 16

Discuss two advantages **and** two disadvantages of investing in **shares** compared with establishing and running your own business.

Question 17

Jordan is saving for a house deposit that they will need in **about 12 months**. *Sam* is investing for retirement, which is **around 30 years** away, and is comfortable accepting short-term ups and downs. Recommend a suitable type of investment for **each** person, and justify each recommendation by reference to **time horizon** and **risk**.

Question 18

An investor tells their adviser that they want to invest “**ethically**” — avoiding companies involved in gambling and fossil fuels, and favouring sustainable ones. **Discuss** ethical (sustainable) investing: explain what it means, give **one**

reason an investor might choose it, and identify **one** trade-off or difficulty it can involve. Refer in your answer to how ethical considerations might affect the choice between the investment options in this section.

Answers

1.
 - a. \$600 b. 4% c. see solutions
2.
 - a. \$270 b. \$180 c. the savings account (see solutions)
3.
 - a. \$120 b. \$450 c. 19%
4.
 - a. \$14 000 b. \$10 500 c. 7%
5.
 - a. Nil (no income) b. \$1 200 loss c. -15%
6.
 - a. cash, shares, cryptocurrency b. shares (see solutions) c. see solutions
7. Interest \$950; maturity balance \$20 950; 3-month interest \$237.50
8. Outlay \$2 000; dividends \$90; net sale proceeds \$2 200; total return \$290; rate of return 14.5%
9. Net rental income -\$4 000; capital gain \$30 000; total return \$26 000; rate of return 5.2%
10. Aisha \$500 (5%); Ben \$1 200 (12%); Ben earned more
11. 6 months: \$8 000 (gain \$3 000); 12 months: \$3 600 (loss \$1 400); 12-month rate of return -28%
12. Term deposit \$720 (4.5%); shares \$1 760 (11%); cryptocurrency -\$2 400 (-15%); ranking shares, term deposit, cryptocurrency
13. Term deposit 5%; business 20%; see solutions
14. See solutions
15. See solutions
16. See solutions
17. See solutions
18. See solutions

Fully-worked solutions

Question 1

- a. Interest = $\$15\,000 \times 4\% = \textbf{\$600}$.
- b. Rate of return = $\$600 \div \$15\,000 \times 100 = \textbf{4\%}$ (for cash the rate of return equals the interest rate, because there is no capital gain).
- c. A term deposit returns less because it carries far **less risk** — the capital is secure and the interest is fixed — whereas shares offer a higher *expected* return only as compensation for the risk that their price (and dividends) may fall.

Question 2

- a. Savings interest = $\$9\,000 \times 3\% = \textbf{\$270}$ for the year.
- b. Term deposit interest = $\$9\,000 \times 4\% \times 6/12 = \textbf{\$180}$.
- c. The **savings account** is more liquid: Leo can withdraw his money at any time without penalty, whereas the term deposit locks the funds away for the fixed six-month term.

Question 3

- a. Dividends = $1\,000 \times \$0.12 = \textbf{\$120}$.
- b. Capital gain = $(\$3.45 - \$3.00) \times 1\,000 = \$0.45 \times 1\,000 = \textbf{\$450}$.
- c. Total return = $\$120 + \$450 = \$570$; rate of return = $\$570 \div \$3\,000 \times 100 = \textbf{19\%}$ (amount invested = $1\,000 \times \$3.00 = \$3\,000$).

Question 4

- a. Net rental income = \$21 000 – \$7 000 = **\$14 000**.
- b. Capital gain = \$360 500 – \$350 000 = **\$10 500**.
- c. Total return = \$14 000 + \$10 500 = \$24 500; rate of return = $\$24\,500 \div \$350\,000 \times 100 = 7\%$.

Question 5

- a. Cryptocurrency pays no interest, rent or dividend, so the income is **nil**.
- b. Capital loss = \$6 800 – \$8 000 = **–\$1 200** (a loss).
- c. Rate of return = $-\$1\,200 \div \$8\,000 \times 100 = -15\%$. With no income, the whole return is the capital loss.

Question 6

- a. From lowest to highest risk: **cash** → **shares** → **cryptocurrency**. Cash is capital-secure and government-guaranteed; shares fluctuate but represent ownership of real companies; cryptocurrency is the most volatile and least regulated.
- b. **Shares** are more liquid than property: listed shares can be sold on the ASX within days, whereas a property takes weeks or months to sell and carries high transaction costs.
- c. The **risk–return relationship** states that a **higher expected return generally requires accepting a higher level of risk** — investors demand extra reward to compensate for the greater chance of loss.

Question 7

Interest = $\$20\,000 \times 4.75\% = \textbf{\$950}$; balance at maturity = $\$20\,000 + \$950 = \textbf{\$20 950}$.

For three months: interest = $\$20\,000 \times 4.75\% \times 3/12 = \$950 \times 1/4 = \textbf{\$237.50}$. A quarter of the year earns a quarter of the annual interest.

Question 8

Total outlay = $(300 \times \$6.60) + \$20 \text{ brokerage} = \$1\,980 + \$20 = \textbf{\$2 000}$.

Dividends = $300 \times \$0.30 = \textbf{\$90}$.

Net sale proceeds = $(300 \times \$7.40) - \$20 \text{ brokerage} = \$2\,220 - \$20 = \textbf{\$2 200}$.

Capital gain = $\$2\,200 - \$2\,000 = \$200$; total return = $\$200 + \$90 = \textbf{\$290}$.

Rate of return = $\$290 \div \$2\,000 \times 100 = \textbf{14.5\%}$. The two \$20 brokerage charges reduce the return — a reminder that transaction costs matter when comparing the net return on shares.

Question 9

Net rental income = $\$24\,000 - \$28\,000 = \textbf{–\$4 000}$ (a rental loss, because the expenses — including loan interest — exceed the rent).

Capital gain = $\$530\,000 - \$500\,000 = \textbf{\$30 000}$.

Total return = $-\$4\,000 + \$30\,000 = \textbf{\$26 000}$; rate of return = $\$26\,000 \div \$500\,000 \times 100 = \textbf{5.2\%}$.

The return is driven **entirely by capital growth**: the property actually made a loss on rent, so the investor is relying on the value of the house rising. If property values had instead fallen, the loss on rent **and** a capital loss would have combined to give a sharply negative return — showing how much a geared property investment depends on rising prices.

Question 10

Aisha (term deposit): total return = $\$10\,000 \times 5\% = \textbf{\$500}$; rate of return = **5%**.

Ben (shares): total return = \$300 dividends + \$900 capital gain = **\$1 200**; rate of return = $\$1\,200 \div \$10\,000 \times 100 = 12\%$.

Ben earned the higher return — \$1 200 (12%) against Aisha's \$500 (5%). The trade-off is **risk**: Ben's capital was not secure, and if the share price had fallen he could have earned a negative return, whereas Aisha's \$10 000 and her \$500 of interest were both guaranteed.

Question 11

Amount invested = $200 \times \$25 = \$5\,000$.

At **six months**: value = $200 \times \$40 = \$8\,000$; capital gain = $\$8\,000 - \$5\,000 = \$3\,000$.

At **twelve months**: value = $200 \times \$18 = \$3\,600$; capital loss = $\$3\,600 - \$5\,000 = -\$1\,400$.

12-month rate of return = $-\$1\,400 \div \$5\,000 \times 100 = -28\%$.

The holding was **\$3 000 up after six months but \$1 400 down after twelve** — a swing that demonstrates the **extreme volatility** of cryptocurrency. An investor who had sold at six months would have done very well; one who held on suffered a substantial loss, and the timing was impossible to predict.

Question 12

Term deposit: total return = $\$16\,000 \times 4.5\% = \720 ; rate of return = **4.5%**.

Shares: total return = $\$640 + \$1\,120 = \$1\,760$; rate of return = $\$1\,760 \div \$16\,000 \times 100 = 11\%$.

Cryptocurrency: total return = **-\$2 400**; rate of return = $-\$2\,400 \div \$16\,000 \times 100 = -15\%$.

Ranked from highest to lowest expected rate of return: **shares (11%) → term deposit (4.5%) → cryptocurrency (-15%)**. Note that the *highest* expected return (shares) also carries more risk than the term deposit, and the crypto option is expected to lose value — the ranking of expected returns is not on its own a recommendation.

Question 13

Term deposit: rate of return = $\$60\,000 \times 5\% \div \$60\,000 \times 100 = 5\%$ (interest of \$3 000).

Business: implied rate of return = $\$12\,000 \div \$60\,000 \times 100 = 20\%$.

At first glance the business looks far better — 20% against 5% — but Marcus should weigh at least two further factors. **First, the effort and opportunity cost of his labour:** the \$12 000 is not a purely passive return like the interest; it is partly a reward for Marcus working full-time in the business, and if he could earn wages elsewhere, the *true* return on his \$60 000 is lower than 20% once the value of his time is deducted. **Second, risk and liquidity:** the term deposit's capital is secure and returns a certain \$3 000, whereas the business could make far less than \$12 000 — or a loss — and, unlike the term deposit, the \$60 000 tied up in the business cannot be recovered quickly if Marcus needs it, since a business is difficult to sell at short notice for a certain price. The higher expected return of the business is therefore compensation for materially higher risk, illiquidity and personal effort.

Question 14

The **liquidity** of an investment is how **quickly and cheaply it can be converted back into cash without losing value**. Ranked from most to least liquid: **cash → shares → property**. Cash in a savings account is already money and can be withdrawn instantly; listed shares are highly liquid but take a few days to sell and settle and incur brokerage; property is the least liquid, because a sale takes weeks or months to arrange and carries high transaction costs (agent's commission, legal fees), so it cannot be turned into cash quickly or without loss.

Question 15

A **term deposit** has a **low expected return** — only the fixed interest, with no capital growth — but **very low risk**, because the capital is secure and government-guaranteed and the interest rate is known in advance. **Cryptocurrency** has a **very high but highly uncertain expected return** — it pays no income and its entire return depends on a volatile price that can rise or fall dramatically — and therefore **very high risk**, including the risk of losing most or all of the capital. The contrast illustrates the **risk–return relationship**: the investment offering the chance of a much

higher return (cryptocurrency) does so only because it exposes the investor to a much greater chance of loss, while the safe investment (the term deposit) offers a correspondingly modest return.

Question 16

Advantages of shares over owning a business. First, shares are far more **liquid**: they can be sold on the ASX within days, whereas a business can take months to sell and may not fetch a certain price. Second, shares are **passive**: the investor earns dividends and capital growth without having to work in the company, whereas running a business demands the owner's full-time commitment of time, skill and effort. (Shares also allow easy **diversification** across many companies, spreading risk.)

Disadvantages of shares over owning a business. First, a shareholder has **little or no control** over how the company is run and over its dividend policy, whereas a business owner makes every decision and keeps all of the profit. Second, the shareholder receives only a **small dividend share** of the company's profit, while a successful business owner captures the **whole** profit, giving a higher potential return for the effort and risk taken. A balanced answer recognises that shares suit an investor wanting a liquid, hands-off investment, while a business suits someone willing to trade liquidity and effort for control and a potentially larger reward.

Question 17

Jordan (house deposit needed in about 12 months) has a **short time horizon** and cannot afford for the capital to fall just before it is needed, so a **low-risk, liquid** option is appropriate — a **savings account or a short-term deposit**. Shares or cryptocurrency would be unsuitable, because a fall in value over the next year could leave Jordan short of the deposit exactly when the money is required.

Sam (retirement about 30 years away, comfortable with short-term ups and downs) has a **long time horizon** and can ride out short-term volatility, so **growth assets such as shares (or property)** are appropriate: over a long period their higher expected return should outweigh the risk, and there is time to recover from any downturns. Matching the investment's risk and time horizon to the investor's goal is the key principle: a short-term goal calls for security and liquidity, a long-term goal can accept risk in pursuit of a higher return.

Question 18

Ethical (sustainable) investing means selecting investments partly on their **social and environmental impact** rather than on expected return alone — for example, avoiding companies involved in gambling, fossil fuels or weapons, and favouring those with strong environmental and labour records.

One reason to choose it: the investor can **align their money with their values**, taking satisfaction that their capital is not supporting activities they consider harmful and may be contributing to positive outcomes such as reducing environmental damage.

One trade-off or difficulty: restricting the pool of acceptable investments can mean **accepting a lower or less certain return**, because some profitable companies and sectors are excluded; and there is the problem of **greenwashing**, where an investment is marketed as “ethical” or “green” but does not genuinely meet those claims, so the investor must scrutinise whether the information is a **faithful, verifiable representation** of the investment's true impact.

Ethical considerations can reshape the choice between this section's options: an investor might screen out particular **shares** on ethical grounds, prefer **property** that meets sustainability standards, or avoid **cryptocurrency** because of the very high electricity use of some mining or the prevalence of scams. In each case the investor is weighing their ethical standards alongside the return, risk, liquidity and time horizon of the alternatives.

Chapter 3 Business ownership — 3E Measuring investment performance: return on investment

Theory

Someone with money to commit — a saver, a would-be business owner, an investor — almost always faces a **choice** between competing options. The alternatives introduced earlier in this chapter (leaving the money in **cash**, buying **property**, buying **shares**, buying **cryptocurrency**, or putting it into their **own business**) each promise a different reward for a different level of risk. To decide between them sensibly, the investor needs a single, consistent measure that lets very different options be compared on the **same basis**. That measure is **return on investment**.

Return. The **return** on an investment is the **financial benefit** the investor earns from committing their money over a period. It takes a different form for each option, and for some options it has **two parts**:

- An **income return** — a cash reward received *while* the investment is held: **interest** from cash in a savings account or term deposit, **net rent** (rent received less the expenses of holding the property) from an investment property, **dividends** from shares, or the **net profit** earned by an owner's own business.
- A **capital return** (or **capital growth**) — the **rise in the value** of the investment itself over the period, realised when the asset could be sold for more than it cost. Shares, property and cryptocurrency can all rise (or fall) in value; a cryptocurrency holding earns **no** income at all, so its entire return is capital growth.

The **total return** for a period is simply the income return plus the capital growth. For a business the return is usually stated as the **net profit**; for cash it is the **interest** alone (cash does not grow in value); for cryptocurrency it is the **capital growth** alone.

Amount invested. The **amount invested** is the **capital the investor committed** to the option — the money placed on term deposit, the purchase price of the property, the cost of the share parcel or cryptocurrency, or the capital contributed to start the business. It is the figure the return must be measured *against*.

Return on investment (ROI). Because the options differ so greatly in size — a term deposit of a few thousand dollars against a property worth hundreds of thousands — the **dollar** return alone is misleading. A \$2 000 return sounds better than a \$1 000 return, but if the first required \$100 000 of capital and the second only \$10 000, the second is by far the more *efficient* use of money. **Return on investment** solves this by expressing the return as a **percentage of the amount invested**:

$$\text{return on investment (ROI)} = (\text{return} \div \text{amount invested}) \times 100$$

An ROI of 8% means the investment earned 8 cents for every dollar committed to it, whatever the dollar size of the investment. Because ROI standardises the reward per dollar, it lets the investor **rank** options of completely different sizes against one another — and against a benchmark such as the interest a term deposit would have paid for taking almost no risk.

Working backwards. The same relationship can be rearranged to find either missing figure when the ROI is known:

$$\text{return} = (\text{ROI} \div 100) \times \text{amount invested} \text{ and } \text{amount invested} = \text{return} \div (\text{ROI} \div 100)$$

So an investor who requires an 8% ROI on \$120 000 needs a return of \$9 600, and an investment that returned \$2 700 at an ROI of 9% must have been \$30 000 of capital.

The risk–return trade-off. ROI measures the reward, but it says nothing about the **risk** taken to earn it. **Risk** is the chance that the actual return turns out **different from** what was expected — including the chance of earning less, earning nothing, or losing part of the capital itself. Investments sit on a **risk–return trade-off**: to persuade investors to accept more risk, an option must offer the prospect of a **higher return**, and the safest options can only offer a **low** one. Cash in a term deposit is very low risk (the amount is effectively guaranteed) but pays a low return; cryptocurrency has offered spectacular returns in some years but can fall by half in a matter of weeks. Property and shares sit between these extremes, and a person's own business typically carries high risk because its success depends on so many things the owner cannot control. Ranked from lower to higher risk, the five options usually run cash → property → shares → business → cryptocurrency, and the returns on offer tend to rise in the same order — which is exactly what the trade-off predicts.

Why the highest ROI is not automatically the best choice. A common mistake is to assume the investor should simply pick the option with the **highest ROI**. ROI is only one input to the decision, and on its own it can be dangerously incomplete:

- **Risk.** A high ROI earned by taking extreme risk may not be **repeatable** — last year’s 40% cryptocurrency return tells the investor little about next year, which could be a heavy loss. A modest but **reliable** return can be worth more than a high but volatile one.
- **Liquidity.** **Liquidity** is how quickly, and how fully, an investment can be turned back into cash without having to accept a lower price. Cash and shares are highly liquid; property and a private business are **illiquid** — selling them takes time and may force a discount. An investor who will need the money soon cannot afford to lock it into an illiquid, high-ROI option.
- **The investor’s circumstances.** Time horizon, tolerance for risk, and whether the investor needs a steady **income** or is happy to wait for **growth** all shape which option is “best”. A retiree relying on the income differs completely from a young investor who can ride out volatility.

For these reasons the sensible investor uses ROI to compare the **reward** of each option, then weighs that reward against its **risk**, its **liquidity** and their own needs before choosing.

Ethical considerations. ROI figures are routinely used to **attract** other people’s money — in a company prospectus, a managed-fund advertisement, a financial adviser’s recommendation, or a promoter spruiking a cryptocurrency. Under the **faithful representation** characteristic, a return quoted to influence a decision must be **complete, free from material error** and **neutral** (without bias). It is misleading to headline the single best year while hiding the losing ones — the picture is not **complete**; to quote a return *before* deducting the fees and costs that will actually reduce it — the figure is then materially wrong as a statement of what the investor will receive, so it is not **free from material error**; or to present a volatile past gain as though it were a dependable future one — that is not **neutral**.

Comparability requires that returns put side by side are calculated on the **same basis** — a “gross” return advertised next to a rival’s “net” return invites a false comparison — and **verifiability** requires that every figure can be traced to genuine statements, valuations and contracts, so an independent person could arrive at the same ROI. Presenting a flattering ROI while concealing the risk or the illiquidity behind it can lead investors to commit money they cannot afford to lose; honest, fully-costed, like-for-like figures are an ethical obligation, not an optional courtesy, because real people act on them.

Worked model. An investor is comparing where to place funds for one year across the five alternatives from 3D. The dollar amounts committed differ enormously, so ROI is used to bring them onto a common footing. The **return** for each option is worked out first (combining income and capital growth where both apply), then divided by the amount invested and multiplied by 100.

Investment option	Amount invested \$	Return for the year \$	ROI %
Cash (term deposit) — interest \$1 000	25 000	1 000	4.0
Property — net rent \$14 000 + growth \$6 000	400 000	20 000	5.0
Shares — dividends \$1 200 + growth \$2 400	30 000	3 600	12.0
Cryptocurrency — growth \$3 000 (no income)	10 000	3 000	30.0
Own business — net profit \$14 400	80 000	14 400	18.0

Ranked by ROI the order is **cryptocurrency (30%) → business (18%) → shares (12%) → property (5%) → cash (4%)**. Notice that property earned the **largest dollar return** (\$20 000) yet has almost the **lowest ROI**, because it also tied up by far the most capital — the very trap ROI is designed to expose. The ranking also mirrors the **risk–return trade-off**: the highest ROI belongs to the riskiest, most volatile option, and the lowest to the safest, most liquid one. The investor would not automatically choose the cryptocurrency; its 30% is last year’s figure and could as easily be a large loss this year, while the term deposit’s 4% is modest but effectively guaranteed and available at any time.

Worked examples (scaffolded)

Example 1 — computing an ROI where the return combines income and capital growth

Leah invests \$16 000 in a parcel of *Kestrel Group* shares on 1 July. During the year she receives \$640 in dividends, and by 30 June the parcel is worth \$17 760. Calculate her return on investment for the year.

Working	Comment
Capital growth = \$17 760 – \$16 000 = \$1 760 .	The rise in the market value of the parcel over the year — a capital return.
Income return = dividends = \$640 .	The cash reward received <i>while</i> the shares were held.
Total return = \$640 + \$1 760 = \$2 400 .	Return = income return + capital growth. Shares can produce both.
ROI = (\$2 400 ÷ \$16 000) × 100 = 15% .	Return ÷ amount invested × 100. Each dollar invested earned 15 cents.

∴ Leah's return on investment for the year is **15%**, made up of a 4% income return (\$640 ÷ \$16 000) and an 11% capital return (\$1 760 ÷ \$16 000).

Example 2 — comparing and ranking three options by ROI

Marcus can commit different amounts to three options for one year: a **term deposit** of \$20 000 that will pay \$700 interest; an **investment property** costing \$250 000 expected to return \$15 000 (net rent plus growth); and \$5 000 of **cryptocurrency** expected to grow by \$2 000. He wants to rank them by ROI.

Working	Comment
Term deposit ROI = (\$700 ÷ \$20 000) × 100 = 3.5% .	The safest option, so the lowest return — the trade-off in action.
Property ROI = (\$15 000 ÷ \$250 000) × 100 = 6% .	The largest <i>dollar</i> return, but spread over the most capital.
Cryptocurrency ROI = (\$2 000 ÷ \$5 000) × 100 = 40% .	The smallest dollar return, yet the highest ROI — and the highest risk.
Rank: cryptocurrency (40%) → property (6%) → term deposit (3.5%).	ROI lets options of very different size be compared on one scale.

Investment option	Amount invested \$	Return \$	ROI %
Cryptocurrency	5 000	2 000	40.0
Property	250 000	15 000	6.0
Term deposit	20 000	700	3.5

∴ ranked by ROI the order is cryptocurrency, then property, then the term deposit. Marcus should not treat this as the final decision: the cryptocurrency's 40% carries the greatest risk of a loss, while the term deposit's 3.5% is effectively certain and instantly available.

Worked examples (unscaffolded)

Example 3 — working back to a missing return and a missing amount invested

Two separate calculations. (a) Priya requires a return on investment of **8%** on the **\$120 000** she is putting into a small business — what dollar return must the business earn to meet her target? (b) Dev's share parcel produced a return of **\$2 700** for the year at an ROI of **9%** — how much did he originally invest?

- (a) Rearranging $\text{ROI} = (\text{return} \div \text{amount invested}) \times 100$ gives $\text{return} = (\text{ROI} \div 100) \times \text{amount invested} = (8 \div 100) \times \$120\,000 = \mathbf{\$9\,600}$. The business must earn a net profit of \$9 600 to deliver Priya's required 8% ROI.

(b) amount invested = return $\div$ (ROI $\div$ 100) = \$2 700 $\div$ 0.09 = **\$30 000**. A \$2 700 return that represents 9% of the capital must have come from a \$30 000 investment.

$\therefore$ Priya needs a \$9 600 return, and Dev invested \$30 000.

Example 4 — comparing two options, then judging by risk and liquidity

Sana has \$8 000 to invest for **12 months**, after which she needs the money for a house deposit. She compares **cryptocurrency**, which returned **\$2 400** on an \$8 000 holding last year, with an \$8 000 **term deposit** paying **\$320** of interest. Compare the two by ROI and advise her.

Cryptocurrency ROI = (\$2 400 $\div$ \$8 000) $\times$ 100 = **30%**; term deposit ROI = (\$320 $\div$ \$8 000) $\times$ 100 = **4%**. On ROI alone the cryptocurrency is far ahead. But the 30% is **last year's** return and cryptocurrency is highly **volatile** — over a single 12-month horizon it could just as easily fall sharply, and Sana **cannot** afford a loss because the money is committed to a house deposit. The term deposit's 4% is low but **guaranteed** and fully **liquid** at the end of the term.

$\therefore$ despite its much higher ROI, the cryptocurrency is the wrong choice for money that is needed in a year and cannot be put at risk; the term deposit's lower but certain 4% ROI is the better fit for Sana's circumstances — a clear case of the highest ROI *not* being the best choice.

Practice questions — scaffolded

Question 1

Oakfield Holdings buys an investment property for \$300 000. During the year it receives \$12 000 of net rent and the property's value rises by \$6 000.

- Calculate the total return for the year.
- Calculate the return on investment.
- State the two components that made up the return.

Question 2

Naomi invests \$24 000 in *Brightline* shares. During the year she receives \$720 in dividends, and by year-end the parcel is worth \$25 440.

- Calculate the capital growth.
- Calculate the total return and the return on investment.
- Explain in one sentence why both the dividends and the capital growth are included in the return.

Question 3

An investor is comparing three options for one year: \$10 000 in a **savings account** returning \$400; \$200 000 in **property** returning \$11 000; and \$25 000 in **shares** returning \$3 000.

- Calculate the ROI of each option.
- Rank the three options from the highest ROI to the lowest.
- Explain why comparing the **dollar** returns alone would give a misleading picture.

Question 4

- An investor earns an ROI of 7% on \$40 000 committed to a business. Calculate the dollar return.
- Another investor earns an ROI of 15% on a \$12 000 share parcel. Calculate the dollar return.
- State the formula, rearranged from the ROI formula, that you used to find the return.

Question 5

- A term deposit returned \$3 600 at an ROI of 6%. Calculate the amount invested.

- b. A cryptocurrency holding returned \$1 000 at an ROI of 8%. Calculate the amount invested.
- c. State the formula, rearranged from the ROI formula, that you used to find the amount invested.

Question 6

Tom has \$6 000 to invest for 12 months, after which he needs it for a house deposit. **Cryptocurrency** returned \$1 800 on a \$6 000 holding last year; a \$6 000 **savings account** would return \$240.

- a. Calculate the ROI of each option.
- b. State which option has the higher ROI.
- c. Explain why Tom might still choose the lower-ROI option, with reference to **risk** and **liquidity**.

Practice questions — unscaffolded

Question 7

Harper contributes \$90 000 of capital to start a business, which earns a net profit of \$13 500 in its first year. Calculate the return on investment.

Question 8

Elias invests \$40 000 in *Summit Metals* shares. During the year he receives \$1 600 in dividends, and by year-end the parcel is worth \$43 200. Calculate the total return and the return on investment.

Question 9

An investor compares all five alternatives for one year. Calculate the ROI of each and rank them from highest to lowest.

Investment option	Amount invested \$	Return \$
Cash (term deposit)	50 000	1 750
Property	320 000	16 000
Shares	20 000	1 900
Cryptocurrency	4 000	1 600
Own business	60 000	9 000

Question 10

An investor requires an ROI of 20% on the \$150 000 she is putting into a business. Calculate the dollar return the business must earn to meet her target.

Question 11

A share parcel produced a return of \$4 200 for the year at an ROI of 14%. Calculate the amount invested.

Question 12

Ravi invests \$20 000 in shares and receives \$800 in dividends during the year. The parcel's return on investment for the year is 11%. Calculate the total return, and hence the capital growth on the parcel.

Question 13

Investor A commits \$100 000 to an option and earns a return of \$6 000; Investor B commits \$15 000 to a different option and earns a return of \$1 800. Calculate each investor's ROI, and state which investor earned the higher ROI even though the other earned the larger dollar return.

Question 14

A \$12 000 **cryptocurrency** holding returned \$4 800 last year, while a \$12 000 **term deposit** would have returned \$480. Calculate the ROI of each, and explain how this comparison illustrates the **risk–return trade-off**.

Question 15

An investor compares a \$250 000 **investment property** returning \$17 500 with a \$40 000 **share parcel** returning \$2 800. Calculate the ROI of each, and explain, with reference to **liquidity**, why the investor might prefer the shares even though the two options have the same ROI.

Question 16

An investor's adviser presents three options, each requiring \$20 000 for one year: a **term deposit** returning \$800, a **share parcel** returning \$2 200, and a **cryptocurrency** holding that returned \$6 000 last year. Calculate and rank the ROIs, then **discuss** two reasons why a risk-averse retiree, who relies on this money for living costs, should not simply choose the option with the highest ROI.

Question 17

A promoter advertises a cryptocurrency fund with the headline “**35% return on investment!**”, a figure based on the fund's single best year. The promoter does not mention that the fund's **average** return over the last five years was **−5%**, and that annual management fees further reduce what investors actually receive. **Discuss** this advertisement with reference to a relevant qualitative characteristic, and explain **one** consequence for an investor who commits money on the strength of the headline figure.

Question 18

Georgia has \$30 000 to invest for **six months**, after which she needs the full amount to pay for her wedding. She is choosing between a **savings account** returning \$1 050, a **share parcel** expected to return \$3 300, and a **cryptocurrency** holding that returned \$9 000 last year. Calculate and rank the ROIs, then recommend an option for Georgia, justifying your choice with reference to ROI, **risk** and **liquidity**.

Answers

1.
 - a. \$18 000 b. 6% c. net rent (income) and capital growth
2.
 - a. \$1 440 b. return \$2 160; ROI 9% c. see solutions
3.
 - a. 4%, 5.5%, 12% b. shares → property → savings account c. see solutions
4.
 - a. \$2 800 b. \$1 800 c. $\text{return} = (\text{ROI} \div 100) \times \text{amount invested}$
5.
 - a. \$60 000 b. \$12 500 c. $\text{amount invested} = \text{return} \div (\text{ROI} \div 100)$
6.
 - a. 30% and 4% b. cryptocurrency c. see solutions
7. 15%
8. return \$4 800; ROI 12%
9. cash 3.5%, property 5%, shares 9.5%, crypto 40%, business 15%; rank crypto → business → shares → property → cash
10. \$30 000
11. \$30 000
12. total return \$2 200; capital growth \$1 400
13. A 6%, B 12%; Investor B earned the higher ROI
14. crypto 40%, term deposit 4%; see solutions
15. property 7%, shares 7%; see solutions
16. term deposit 4%, shares 11%, cryptocurrency 30%; rank crypto → shares → term deposit; see solutions
17. See solutions
18. savings account 3.5%, shares 11%, cryptocurrency 30%; rank crypto → shares → savings account; recommend the savings account — see solutions

Fully-worked solutions

Question 1

- a. $\text{Total return} = \text{net rent} + \text{capital growth} = \$12\,000 + \$6\,000 = \mathbf{\$18\,000}$.
- b. $\text{ROI} = (\$18\,000 \div \$300\,000) \times 100 = \mathbf{6\%}$.
- c. The return was made up of the **net rent** (an income return of \$12 000) and the **capital growth** (a capital return of \$6 000 as the property rose in value).

Question 2

- a. $\text{Capital growth} = \$25\,440 - \$24\,000 = \mathbf{\$1\,440}$.
- b. $\text{Total return} = \text{dividends} + \text{capital growth} = \$720 + \$1\,440 = \mathbf{\$2\,160}$; $\text{ROI} = (\$2\,160 \div \$24\,000) \times 100 = \mathbf{9\%}$.
- c. Both are included because the return measures the **whole** financial benefit of holding the shares — the **dividends** are the income received while they were held, and the **capital growth** is the rise in their value — and ignoring either would understate the true return.

Question 3

- a. $\text{Savings account ROI} = (\$400 \div \$10\,000) \times 100 = \mathbf{4\%}$; $\text{property ROI} = (\$11\,000 \div \$200\,000) \times 100 = \mathbf{5.5\%}$; $\text{shares ROI} = (\$3\,000 \div \$25\,000) \times 100 = \mathbf{12\%}$.
- b. Ranked highest to lowest: **shares (12%) → property (5.5%) → savings account (4%)**.
- c. The property earned the **largest dollar return** (\$11 000) and so would look the best if only dollar returns were compared — yet it has almost the lowest ROI because it tied up by far the most capital (\$200 000).

Comparing dollar returns ignores the **size** of the investment; ROI expresses each return per dollar invested, revealing that the shares are the most efficient use of capital.

Question 4

- Return = $(\text{ROI} \div 100) \times \text{amount invested} = 0.07 \times \$40\,000 = \text{\$2 800}$.
- Return = $0.15 \times \$12\,000 = \text{\$1 800}$.
- return = $(\text{ROI} \div 100) \times \text{amount invested}$** — the ROI formula rearranged to make the return the subject.

Question 5

- Amount invested = $\text{return} \div (\text{ROI} \div 100) = \$3\,600 \div 0.06 = \text{\$60 000}$.
- Amount invested = $\$1\,000 \div 0.08 = \text{\$12 500}$.
- amount invested = $\text{return} \div (\text{ROI} \div 100)$** — the ROI formula rearranged to make the amount invested the subject.

Question 6

- Cryptocurrency ROI = $(\$1\,800 \div \$6\,000) \times 100 = \textbf{30\%}$; savings account ROI = $(\$240 \div \$6\,000) \times 100 = \textbf{4\%}$.
- The **cryptocurrency** has the higher ROI (30% against 4%).
- Tom needs the money in 12 months and cannot afford to lose any of it. The cryptocurrency's 30% is **last year's** figure and is highly **volatile (risk)** — over a single year it could fall sharply, leaving him short for the deposit. The savings account is effectively **certain** and fully **liquid (liquidity)** — he can withdraw the full amount when he needs it. Given his short horizon and his inability to bear a loss, the safer, more liquid 4% option is the better choice despite its lower ROI.

Question 7

ROI = $(\$13\,500 \div \$90\,000) \times 100 = \textbf{15\%}$. The business earned 15 cents of net profit for every dollar of capital Harper contributed.

Question 8

Capital growth = $\$43\,200 - \$40\,000 = \$3\,200$. Total return = dividends + capital growth = $\$1\,600 + \$3\,200 = \text{\$4 800}$.
ROI = $(\$4\,800 \div \$40\,000) \times 100 = \textbf{12\%}$.

Question 9

Investment option	Amount invested \$	Return \$	ROI %
Cryptocurrency	4 000	1 600	40.0
Own business	60 000	9 000	15.0
Shares	20 000	1 900	9.5
Property	320 000	16 000	5.0
Cash (term deposit)	50 000	1 750	3.5

Cash ROI = $(\$1\,750 \div \$50\,000) \times 100 = 3.5\%$; property = $(\$16\,000 \div \$320\,000) \times 100 = 5\%$; shares = $(\$1\,900 \div \$20\,000) \times 100 = 9.5\%$; cryptocurrency = $(\$1\,600 \div \$4\,000) \times 100 = 40\%$; business = $(\$9\,000 \div \$60\,000) \times 100 = 15\%$.
Ranked highest to lowest: **cryptocurrency (40%)** → **business (15%)** → **shares (9.5%)** → **property (5%)** → **cash (3.5%)** — the returns rise with the risk of the option, as the risk–return trade-off predicts.

Question 10

Return = $(\text{ROI} \div 100) \times \text{amount invested} = 0.20 \times \$150\,000 = \text{\$30 000}$. The business must earn a net profit of \$30 000 to deliver the required 20% ROI.

Question 11

Amount invested = $\text{return} \div (\text{ROI} \div 100) = \$4\,200 \div 0.14 = \text{\$30\,000}$.

Question 12

Total return = $(\text{ROI} \div 100) \times \text{amount invested} = 0.11 \times \$20\,000 = \text{\$2\,200}$. Because the return is the dividends plus the capital growth, capital growth = total return – dividends = $\$2\,200 - \$800 = \text{\$1\,400}$.

Question 13

Investor A ROI = $(\$6\,000 \div \$100\,000) \times 100 = \text{6\%}$; Investor B ROI = $(\$1\,800 \div \$15\,000) \times 100 = \text{12\%}$. **Investor B** earned the higher ROI (12% against 6%), even though Investor A earned the larger **dollar** return (\$6 000 against \$1 800). B's smaller return was earned on far less capital, so each dollar invested worked twice as hard — the point ROI is designed to reveal.

Question 14

Cryptocurrency ROI = $(\$4\,800 \div \$12\,000) \times 100 = \text{40\%}$; term deposit ROI = $(\$480 \div \$12\,000) \times 100 = \text{4\%}$. The comparison illustrates the **risk–return trade-off**: the cryptocurrency offered a far higher potential return (40%) but only in exchange for accepting far greater **risk** — its value is highly volatile and the 40% could just as easily have been a large loss. The term deposit's 4% is low precisely because it carries almost no risk; the amount is effectively guaranteed. Investors demand a higher return to compensate for taking on more risk, which is why the riskier option shows the higher ROI.

Question 15

Property ROI = $(\$17\,500 \div \$250\,000) \times 100 = \text{7\%}$; shares ROI = $(\$2\,800 \div \$40\,000) \times 100 = \text{7\%}$. The two options have the **same** ROI, so ROI alone cannot separate them. **Liquidity** can: the share parcel is highly **liquid** — it can be sold on the market within days and turned into cash near its quoted value — whereas the investment property is **illiquid**, taking weeks or months to sell and often requiring a price discount to sell quickly, on top of substantial selling costs. An investor who values being able to access their money readily would therefore prefer the shares, because they offer the same 7% ROI with far greater liquidity.

Question 16

Term deposit ROI = $(\$800 \div \$20\,000) \times 100 = \text{4\%}$; shares ROI = $(\$2\,200 \div \$20\,000) \times 100 = \text{11\%}$; cryptocurrency ROI = $(\$6\,000 \div \$20\,000) \times 100 = \text{30\%}$. Ranked highest to lowest: **cryptocurrency (30%)** → **shares (11%)** → **term deposit (4%)**.

A risk-averse retiree who relies on this money for living costs should not simply choose the 30% cryptocurrency, for at least two reasons. **First, risk**: the 30% is last year's figure, and cryptocurrency is extremely **volatile** — the following year could bring a heavy loss of the capital itself, which a retiree depending on the money cannot afford to bear; a lower but **reliable** return is worth more to them than a high but uncertain one. **Second, liquidity and income needs**: the retiree needs to draw on the funds steadily and predictably, so they need an option that is liquid and stable rather than one whose value could collapse just when the money is required. ROI measures only the **reward**; the decision must also weigh the **risk**, the **liquidity** and the investor's own circumstances, and on those grounds the highest-ROI option is the wrong fit for this retiree.

Question 17

Headlining the single best year's **35%** while concealing the **–5% five-year average** and the management fees breaches the **faithful representation** characteristic, which requires information to be **complete**, **free from material error** and **neutral** (without bias). The advertisement is not **complete** — it hides both the losing years and the management fees. It is not **free from material error** — presenting 35% as “the return on investment” materially misstates the performance of a fund that has averaged –5%, and quoting a pre-fee figure overstates what an investor would actually receive. And it is not **neutral** — the one flattering year has been deliberately selected to make the fund look attractive. It also fails **comparability**, because a cherry-picked best-year, pre-fee figure cannot be fairly compared with the after-fee, multi-year returns an investor would see elsewhere. **Consequence for the investor**: relying on the misleading 35%, an investor may commit money expecting a high, dependable return, only to find the fund's realistic return is around **–5%** before fees and lower after them — so they could lose a substantial part of their capital, having been denied the complete, error-free and neutral information they needed to judge the risk. Honest

advertising would disclose the average return over a meaningful period, net of fees, so investors could make an informed decision.

Question 18

Savings account ROI = $(\$1\,050 \div \$30\,000) \times 100 = 3.5\%$; shares ROI = $(\$3\,300 \div \$30\,000) \times 100 = 11\%$; cryptocurrency ROI = $(\$9\,000 \div \$30\,000) \times 100 = 30\%$. Ranked highest to lowest: **cryptocurrency (30%)** → **shares (11%)** → **savings account (3.5%)**.

Recommendation: Georgia should choose the **savings account**, despite it having the **lowest** ROI. The decisive factors are her very short **six-month** horizon and the fact that she needs the **full** \$30 000 for a fixed commitment. The cryptocurrency's 30% and the shares' 11% are expected or past figures whose values are **volatile (risk)**; over six months either could fall, leaving her unable to pay for the wedding, and neither can be relied upon to be worth the required amount on the exact date she needs it. The savings account offers a modest but **certain** return and is fully **liquid (liquidity)** — the whole balance is available on demand. Because she cannot afford a loss and needs guaranteed access to the full sum on a set date, the safety and liquidity of the 3.5% option outweigh the higher ROI of the riskier alternatives — a clear illustration that the highest ROI is not automatically the best choice.