Chapter 5

Accounting information for service businesses

REAL WORLD CASE

Who we are

WPP is one of the world's largest communications services groups, made up of leading companies in:

- Advertising
- Media investment management
- Information, insight & consultancy
- Public relations & public affairs
- Branding & identity
- Healthcare communications
- Direct, promotion & relationship marketing
- Specialist communications

Collectively, the Group has 84,000 people (including associates) working in over 2,000 offices in 106 countries.

WPP companies provide communications services to clients worldwide including more than 300 of the Fortune Global 500, over one-half of the NASDAQ 100, and over 30 of the Fortune e-50.

Our companies work with over 330 clients in three or more disciplines. More than 230 clients are served in four disciplines; these clients account for around 50% of Group revenues. The Group also works with nearly 200 clients in six or more countries.

Why we exist

Between them, WPP companies have tens of thousands of individual clients. They range from Fortune 500 global giants through single-nation start-ups to the smallest of specialist charities. Diverse as they are, they have one thing in common: in pursuing their objectives, they face formidable competition.

Growing affluence in many parts of the world – combined with over-capacity and over-supply in almost every significant consumer market – have put more and more power into the hands of consumers.

As always, if they are to succeed – or even to survive with profit – every competitive company needs an intrinsically appealing product or service. But that, though it remains the most fundamental of requirements, is no longer enough. Just as competitive costermongers arrange their apples in appealing displays, and polish them lovingly to catch their customers' eyes, so all companies need to display their wares compellingly. They need access to high quality information, strategic advice and specialist communications skills. And it's in the nature of specialist and creative talent that it is unlikely to flourish within the confines of a manufacturing or service company. People with specialist talents work best – and contribute more – when recruited, trained and inspired by specialist companies.

Within the WPP Group, our clients have access to companies of all the necessary marketing and communications skills; companies with strong and distinctive cultures of their own; famous names, many of them.

Source: WPP Group Annual Report 2004, p. 12.

Discussion point

1 How does this company describe its 'people' assets that will not appear in the balance sheet?

2 Why will this group have a significant inventory of work-in-progress?

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Learning outcomes

After studying this chapter you should be able to:

- Explain how the accounting equation is applied to transactions of a service business.
- Analyse the transactions of a service business during a specific period of time, using the accounting equation.
- Prepare a spreadsheet analysing the transactions and show that the results of the spreadsheet are consistent with the financial statements provided by the organisation.
- Explain the main aspects of the cash flow statement, income statement (profit and loss account) and balance sheet of a service business.

Additionally, for those who read the Supplement:

- Analyse the transactions of a service business using the rules of debit and credit bookkeeping.
- Prepare, from a list of transactions of an organisation, ledger accounts and a trial balance which could be used to prepare the financial statements provided by the organisation.

5.1 Introduction

A person who starts a service business intends to offer a service based on personal skills for which other people will be willing to pay a fee. The most important asset of the service business is the person or people providing the service. Despite that, the workforce as an asset never appears in an accounting balance sheet. That is because, although it satisfies all the conditions of the definition, it is too difficult to measure objectively and so does not meet the conditions for recognition. (See Chapter 2 for the definition of an asset and the conditions for recognition of an asset.)

The service business will have other assets which accounting is able to record: for example, the taxi driver may own a taxi; the electrician will have electrical tools; the joiner will have a workbench and joinery tools; the car mechanic will have a repair garage and equipment; the lawyer will have an office and a word-processor. The service business will also buy materials for use in any particular job and the customer will be

asked to pay for these materials as well as for the labour time involved. Moreover, it will have liabilities to suppliers of goods and services used by the business itself.

There will be an owner or owners having an ownership interest in the business. The service business will make profits for the owner (and thus increase the ownership interest) by charging a price for services which is greater than the cost of labour and materials used in providing the service.

All these aspects of the service business may be analysed and recorded on the basis of the accounting equation as specified in Chapter 2. This chapter will discuss the analysis of transactions using the accounting equation and will then apply that analysis to the transactions of a doctor providing a service of medical health screening for managerial and secretarial staff.

Activity 5.1

Choose a service business and write down the main activity of that business. Then write down the types of expense you would expect to find in the income statement (profit and loss account) of such a business. Write down the types of asset you would expect to find in the balance sheet. Exchange your list with a fellow student. What are the similarities and what are the differences? Keep your list safe and when you have finished the chapter compare your list with the example in the chapter. Ask yourself, at that point, whether you would be able to apply what you have learned to the business you have chosen.

5.2 Analysing transactions using the accounting equation

Three main categories of accounting elements in the accounting equation have been defined in Chapter 2: **asset**, **liability** and **ownership interest**. Any one of these elements may increase or decrease during a period of time but the ownership interest may conveniently be subdivided. There will be increases and decreases caused by the decision of the owner(s) to make further contributions of capital or to withdraw capital. There will be increases and decreases due to the activity of the business, with **revenues** increasing the ownership claim and **expenses** decreasing it.

Decrease in ownership interest	*Increase in ownership interest*
Withdrawals of capital by the owner	Contributions of capital by the owner
Expenses	Revenues

Consequently there are several aspects to consider when transactions are analysed according to the accounting equation.

The accounting equation will be used in this chapter in the form:

Assets	minus	**Liabilities**	equals	**Ownership interest**

When one item in the equation increases, an upward arrow will be used and when one item decreases a downward arrow will be used:

Assets ↓ denotes a decrease in an asset.

Liabilities ↑ denotes an increase in a liability.

For further emphasis, **bold** highlighting will be used for the elements of the equation which are changed as a result of the transaction or event.

Each business transaction has two aspects in terms of the accounting equation. These aspects must be considered from the viewpoint of the *business*. Exhibit 5.1 sets out a list of some common types of transaction encountered in a service business. Each transaction is then analysed using the accounting equation.

Exhibit 5.1
List of transactions for a service business

	Transaction
1	Receive cash from the owner.
2	Buy a vehicle for cash.
3	Receive a bill for gas consumed.
4	Pay the gas bill in cash.
5	Buy materials for cash.
6	Buy materials on credit terms.
7	Sell services for cash.
8	Sell services on credit terms.
9	Pay wages to an employee.
10	Pay cash to the owner for personal use.

Transaction 1: Receive cash from the owner

In this transaction the business *acquires* an **asset** (cash) and must note the **ownership interest** *created* by this contribution of capital from the owner:

Assets ↑	– Liabilities	equals	**Ownership interest** ↑

The equation remains in balance because an increase to the left-hand side is exactly matched by an increase to the right-hand side.

Transaction 2: Buy a vehicle for cash

In this transaction the business *acquires* a new **asset** (the vehicle) but *gives up* another **asset** (cash):

Assets ↑↓	– Liabilities	equals	**Ownership interest**

Transaction 3: Receive a bill for gas consumed

The business becomes aware that it has a **liability** *to pay* for gas consumed and also knows that the **ownership interest** has been *reduced* by the expense of using up gas in earning revenue for the business:

Assets	– **Liabilities** ↑	equals	**Ownership interest** ↓ **(expense)**

Transaction 4: Pay the gas bill in cash

The **asset** of cash is *reduced* and the **liability** to the gas supplier is *reduced*:

Assets ↓	– **Liabilities** ↓	equals	Ownership interest

Transaction 5: Buy materials for cash

When the materials are acquired they will create an asset of inventory (stock), for future use. The **asset** of inventory (stock) will therefore *increase* and the **asset** of cash will *decrease*:

Assets ↓↑ – Liabilities	equals	Ownership interest

Transaction 6: Buy materials on credit terms

Again, materials are acquired which cause an *increase* in the **asset** of inventory (stock). Obtaining goods on credit means that there is a **liability** *created* for amounts owing to the supplier:

Assets ↑ – **Liabilities** ↑	equals	Ownership interest

Transaction 7: Sell services for cash

The cash received from the customer causes an *increase* in the **asset** of cash, while the act of selling services *increases* the **ownership interest** through earning revenue:

Assets ↑ – Liabilities	equals	**Ownership interest ↑ (revenue)**

Transaction 8: Sell services on credit terms

The sale of services creates an *increase* in the **ownership interest** through earning revenue, but also creates an *increase* in the **asset** of trade receivables (debtors):

Assets ↑ – Liabilities	equals	**Ownership interest ↑ (revenue)**

Transaction 9: Pay wages to an employee

The **asset** of cash *decreases* when the wage is paid and there is a *decrease* in the **ownership interest** because the business has used up the service provided by the employee (an expense has been incurred):

Assets ↓ – Liabilities	equals	**Ownership interest ↓ (expense)**

This is a transaction which often causes problems to those new to accounting. They would like to argue that paying wages creates an asset, rather than an expense, because there is an expected future benefit to be gained from the services of the employee. The answer to that argument is that, while there is no disputing the expected future benefit from the services of most employees, the wages paid are for work *already done* and so there can be no future expectations about that particular week's or month's work. The question of whether the workforce as a whole should be recognised as an asset of the business is one of the unresolved problems of accounting.

Transaction 10: Pay cash to the owner for personal use

The **asset** of cash *decreases* and the **ownership interest** *decreases* because the owner has made a voluntary withdrawal of capital:

Assets ↓ – Liabilities	equals	**Ownership interest ↓ (voluntary withdrawal)**

Activity 5.2

Write down the transactions of Exhibit 5.1 in a different order and put the piece of paper away for two days. Then take it out and practise the analysis of each transaction without looking at the answers in the book. If your answers are all correct, is it the result of memory or of genuine understanding? If your answers are not entirely correct, can you decide where the problem lies? It is very important that you can analyse transactions correctly using the accounting equation. It is also important that you use your powers of reasoning and not your powers of memory. You cannot possibly memorise the accounting treatment of every transaction you will meet.

5.3 Illustration of accounting for a service business

We now move on to an example which considers the private medical practice of Dr Lee. At the start of October Dr Lee commenced a new medical practice offering a general health screening service to managerial and secretarial staff at a standard fee of £500 per examination. Where patients make personal arrangements they will be asked to pay cash on the day of the examination. If the patient's employer has agreed to pay for the screening, Dr Lee will send an invoice to the employer, requiring payment within 30 days.

In Exhibit 5.2 there is a list of transactions for Dr Lee's medical practice during the month of October. Try to work out the effect on the accounting equation of each transaction listed. Do this before you read the rest of this section. Then compare your answers and your reasoning with that in the rest of this section. Being able to reason correctly at this stage will reduce the likelihood of error later.

Oct. 1 When Dr Lee provides the practice with cash in a bank account to allow the business to start, the business *acquires* an **asset** of cash at bank and the transaction *creates* an **ownership interest** by Dr Lee in the assets of the business. This means that the business now has the use of £50,000, but, if the business ceases immediately, that £50,000 must be returned to Dr Lee. The accounting equation is satisfied because an increase in an asset is matched by an increase in the ownership interest:

Assets ↑	– Liabilities	equals	**Ownership interest** ↑

Oct. 2 The medical practice now becomes the business entity so far as accounting is concerned (although it is fairly clear that Dr Lee is making all the decisions as the manager of the business as well as being the owner). The entity *acquires* an **asset** of medical equipment in exchange for an equal *decrease* in the amount of an **asset** of cash. The accounting equation is satisfied because the increase in one asset is exactly equal to the decrease in another.

Assets ↑↓	– Liabilities	equals	Ownership interest

Oct. 2 The medical practice pays one month's rent in advance. At the moment of paying the rent, an asset is acquired representing the benefit to be gained from the use of the consulting rooms for the month ahead. However, this benefit only lasts for a short time and will have expired at the end of the accounting period (which has been chosen as one month for the purpose of this example). Once the benefit of an asset has expired, the business

Exhibit 5.2

Transactions of Dr Lee's medical practice for the month of October

Date	*Business transactions of the entity (Nature of the entity: medical practice)*	*Amount*
		£
Oct. 1	Dr Lee provides the practice with cash to allow business to start.	50,000
Oct. 2	The entity acquires medical equipment for cash.	30,000
Oct. 2	One month's rent is paid in advance for consulting rooms.	1,900
Oct. 2	Office furniture is purchased on two months' credit from Office Supplies Company.	6,500
Oct. 7	The practice purchases medical supplies on credit from P. Jones and receives an invoice.	1,200
Oct. 8	Dr Lee pays the medical receptionist for one week's work, 2 to 8 October.	300
Oct. 10	Four patients are examined, each paying £500 cash.	2,000
Oct. 11	The business pays P. Jones in cash for the goods it acquired on credit.	1,200
Oct. 14	The business pays an electricity bill in cash.	100
Oct. 15	Dr Lee pays the medical receptionist for one week's work, 9 to 15 October.	300
Oct. 17	Three patients are examined, their employer (Mrs West) being sent an invoice requesting payment of £500 for each.	1,500
Oct. 22	Dr Lee pays the medical receptionist for one week's work, 16 to 22 October.	300
Oct. 23	The employer (Mrs West) pays in cash for the examination of three patients.	1,500
Oct. 24	Four patients are examined, their employer (Mr East) being sent an invoice requesting payment of £500 for each.	2,000
Oct. 28	Dr Lee draws cash from the business for personal use.	1,000
Oct. 29	Dr Lee pays the medical receptionist for one week's work, 23 to 29 October.	300
Oct. 31	The medical equipment and office furniture is estimated by Dr Lee to have fallen in value over the month.	250
Oct. 31	Dr Lee checks the inventory (stock) of medical supplies and finds that items costing £350 have been used during the month.	350

becomes worse off and the ownership interest decreases. That decrease is called an expense of the business. To save the time and trouble of recording such transactions as assets and then re-naming them as expenses at the end of the accounting period, the short-cut is taken of calling them expenses from the outset. There needs to be a check on such items at the end of the accounting period to ensure that there is no part of the benefit remaining which could still be an asset.

In terms of the accounting equation there is a *decrease* in the **ownership interest** due to an expense of the business. There is a corresponding *decrease* in the **asset** of cash.

Assets ↓	– Liabilities	equals	**Ownership interest** ↓ **(expense)**

Oct. 2 The entity acquires an asset of office furniture. It does not pay cash on this occasion, having been given two months to pay. Looking over the rest of the transactions for October it is clear that there has been no payment by the end of the month. At the moment of taking delivery of the asset, the business incurs a liability to the supplier, Office Supplies Company. The accounting equation is satisfied because the *increase* in an **asset** is exactly equal to the *increase* in a **liability**.

Assets ↑	– **Liabilities** ↑	equals	Ownership interest

Oct. 7 The practice purchases medical supplies on credit from P. Jones and receives an invoice. This is very similar to the previous transaction. An **asset** *is acquired* and a **liability** to a supplier is *created*. The liability is recognised when the practice accepts delivery of the goods because that is the moment of accepting legal liability. For convenience, accounting procedures normally use the arrival of the invoice as the occasion for recording the liability but, even if the invoice failed to arrive, the liability must be recognised in relation to accepting the goods.

Assets ↑	– **Liabilities** ↑	equals	Ownership interest

Oct. 8 The medical receptionist has worked for one week and is paid for the work done. The amount paid in wages is an expense of the business which *decreases* the **ownership interest** because the benefit of that work has been used up in providing support for the medical practice. There is a *decrease* in the **asset** of cash.

Assets ↓	– Liabilities	equals	**Ownership interest** ↓ **(expense)**

Oct. 10 The medical practice now begins to carry out the activities which increase the wealth of the owner by earning revenue. The patients pay cash, so there is an *increase* in the **asset** of cash, and the owner becomes better off so there is an *increase* in the **ownership interest**.

Assets ↑	– Liabilities	equals	**Ownership interest** ↑ **(revenue)**

Oct. 11 The business pays P. Jones in cash for the goods it acquired on credit. Payment of cash *decreases* the **asset** of cash and *decreases* the **liability** to the supplier. Because the supplier is paid in full, the liability is extinguished.

Assets ↓	– **Liabilities** ↓	equals	Ownership interest

Oct. 14 The business pays an electricity bill in full. The business has enjoyed the use of the electricity but there is no benefit remaining. This is an **expense** of the

business which causes a *decrease* in the **ownership interest**. There is a *decrease* in the **asset** of cash.

Assets ↓ – Liabilities	equals	**Ownership interest ↓ (expense)**

Oct. 15 The payment to the medical receptionist is similar in effect to the payment made on 8 October, causing a further **expense** which *decreases* the **ownership interest** and causes a *decrease* in the **asset** of cash.

Assets ↓ – Liabilities	equals	**Ownership interest ↓ (expense)**

Oct. 17 There is an increase in the **ownership interest** which arises from the operations of the business and so is termed **revenue**. On this occasion the business *acquires* an **asset** of a trade receivable (debtor), showing that an amount of money is owed by the employer of these patients.

Assets ↑ – Liabilities	equals	**Ownership interest ↑ (revenue)**

Oct. 22 The payment to the medical receptionist causes a further **expense** and a *decrease* in the **asset** of cash.

Assets ↓ – Liabilities	equals	**Ownership interest ↓ (expense)**

Oct. 23 The cash received from the employer of the three patients examined on 17 October causes an *increase* in the **asset** of cash and a *decrease* in the **asset** of the trade receivable (debtor). Because the amount is paid in full, the asset of the trade receivable (debtor) is reduced to nil.

Assets ↑↓ – Liabilities	equals	Ownership interest

Oct. 24 Again the business carries out the activities intended to make the owner better off. The accounting effect is similar to that of 17 October, with an *increase* in the **ownership interest** and an *increase* in the **asset** of cash.

Assets ↑ – Liabilities	equals	**Ownership interest ↑ (revenue)**

Oct. 28 The owner of a sole trader business does not take a salary or wage as an employee would, but nevertheless needs cash for personal purposes. Taking cash for personal use is called taking 'drawings' and is recorded in terms of the accounting equation as a *decrease* in the **ownership interest** and a *decrease* in the **asset** of cash.

Assets ↓ – Liabilities	equals	**Ownership interest ↓ (drawings)**

Oct. 29 Paying wages causes an **expense** and a *decrease* in the **asset** of cash.

Assets ↓ – Liabilities	equals	**Ownership interest ↓ (expense)**

Oct. 31 The medical equipment and the office furniture are non-current (fixed) assets of the business. They are expected to have some years' useful life in the business but they will eventually be used up. In accounting, the term 'depreciation' is applied to this gradual using up and there are various ways of deciding how much of the fixed asset has been 'used up' in any period. (Chapter 8 gives more information on depreciation.) For this example the owner's estimate of depreciation is sufficient. There is a *decrease* in the non-current (fixed) **assets** which is not matched by an increase in any other asset and so there is a *decrease* in the **ownership interest** due to the operations of the business. **Depreciation** is an **expense** of the business.

Assets ↓ – Liabilities	equals	**Ownership interest ↓ (expense)**

Oct. 31 Dr Lee checks the inventory (stock) of medical supplies and finds that items costing £350 have been used during the month. When these medical supplies were received on 7 October, they were all treated as an asset of the business. It appears now that the asset has been reduced from £1,200 to £850 and that the items used up have caused a decrease of £350 in the ownership interest. This decrease is the expense of medical supplies which will appear in the profit and loss account of the month. The two aspects of this event are therefore a *decrease* in the **ownership interest** and a *decrease* in the **asset** of inventory (stock) of medical supplies.

Assets ↓ – Liabilities	equals	**Ownership interest ↓ (expense)**

This analysis has been set out in some detail to show that each transaction must first of all be considered, in order to establish the nature of the two aspects of the transaction, before any attempt is made to deal with the monetary amounts. The next section uses the analysis based on the accounting equation to produce a spreadsheet which can be totalled to give a summary picture of the transactions of the month in terms of the accounting equation.

5.4 A process for summarising the transactions: a spreadsheet

In Exhibit 5.3 the transactions are repeated in the left-hand column but the relevant money amounts are shown in columns which correspond to the assets, liabilities and ownership interest, using brackets to show a negative amount. (It would be equally acceptable to use a minus sign but minus signs tend to disappear or be confused with unintentional blobs on the paper, so brackets are frequently used in accounting in order to ensure clarity.)

Taking the first line as an example, the analysis of the transaction showed that there was an increase in the asset of cash and an increase in the ownership interest. Thus the amount of £50,000 is written in the spreadsheet column for cash and again in the spreadsheet column for ownership interest. In the second line, the asset of cash decreases by £30,000 and the asset of medical equipment increases by £30,000. A similar pattern follows down the spreadsheet for each transaction.

It may be seen that where there are more than a few transactions during the month, a spreadsheet of the type shown in Exhibit 5.3 would need to be much larger and use more columns.

Exhibit 5.3

Spreadsheet analysing transactions into the elements of the accounting equation

		Assets				Liabilities	Ownership interest		
Date	*Business transactions of the entity (nature of the entity: medical practice)*	*Cash and bank*	*Trade rec'ble (debtor)*	*Inventory (stock)*	*Fixed assets*	*Liabilities*	*Capital contributed or withdrawn*	*Revenue* +	*Expenses* –
		£	£	£	£	£	£	£	£
Oct. 1	Dr Lee provides the practice with cash to allow business to start	50,000					50,000		
Oct. 2	The entity acquires medical equipment for cash	(30,000)			30,000				
Oct. 2	One month's rent is paid in advance for consulting rooms	(1,900)							1,900
Oct. 2	Office furniture is purchased on two months' credit from Office Supplies Company				6,500	6,500			
Oct. 7	The practice purchases medical supplies on credit from P. Jones and receives an invoice			1,200		1,200			
Oct. 8	Dr Lee pays the medical receptionist for one week's work, 2 to 8 October	(300)							300
Oct. 10	Four patients are examined, each paying £500 cash	2,000						2,000	
Oct. 11	The business pays P. Jones in cash for the goods it acquired on credit	(1,200)				(1,200)			
Oct. 14	The business pays an electricity bill in cash	(100)							100
Oct. 15	Dr Lee pays the medical receptionist for one week's work, 9 to 15 October	(300)							300
Oct. 17	Three patients are examined, their employer (Mrs West) being sent an invoice requesting payment of £500 for each		1,500					1,500	
Oct. 22	Dr Lee pays the medical receptionist for one week's work, 16 to 22 October	(300)							300
Oct. 23	The employer (Mrs West) pays in cash for the examination of three patients	1,500	(1,500)						
Oct. 24	Four patients are examined, their employer (Mr East) being sent an invoice requesting payment of £500 for each		2,000					2,000	
Oct. 28	Dr Lee draws cash from the business for personal use	(1,000)					(1,000)		
Oct. 29	Dr Lee pays the medical receptionist for one week's work, 23 to 29 October	(300)							300
Oct. 31	The medical equipment and office furniture is estimated by Dr Lee to have fallen in value over the month				(250)				250
Oct. 31	Dr Lee checks the inventory (stock) of medical supplies and finds that items costing £350 have been used during the month			(350)					350
	Totals	18,100	2,000	850	36,250	6,500	49,000	5,500	3,800
				57,200				50,700	

At the foot of the spreadsheet in Exhibit 5.3 there is a total for each column. Those totals from Exhibit 5.3 are used in Exhibit 5.4, which represents the accounting equation, to show the state of the accounting equation at the end of the month. It may be used to explain to Dr Lee how the ownership interest has changed over the month. The owner contributed £50,000 at the start of the month and has a claim of £50,700 at the end of the month. The ownership interest was increased by earning revenue of £5,500 but reduced by incurring expenses of £3,800 and withdrawing £1,000 for personal use.

Exhibit 5.4
Summary of transactions analysed into the elements of the accounting equation

Assets	minus	Liabilities	=	Ownership interest at start of period	plus	Capital contributed/ withdrawn	plus	Revenue	minus	Expenses
£57,200	–	£6,500		nil	+	£49,000	+	£5,500	–	£3,800
£50,700				*£50,700*						

5.5 Financial statements as a means of communication

This chapter has established the approach taken in accounting towards analysing and classifying transactions in such a way that Dr Lee as the owner of a business knows how much better off or worse off she has become during a period. There is sufficient information contained in Exhibit 5.3 and it is possible to write an interpretation based on Exhibit 5.4. However, this presentation is not particularly informative or easy on the eye.

The process of communication requires some attention to a clear style of presentation. Accounting practice has evolved the cash flow statement, the income statement (profit and loss account) and the balance sheet to give the owner a more informative presentation of the information contained in Exhibits 5.3 and 5.4.

Chapter 3 set out the structure of the financial statements of a business. These ideas are now applied to Dr Lee's medical practice. Don't worry too much about how the information is transferred from Exhibit 5.3 to these financial statements, but look back to the table and satisfy yourself that you can find the corresponding pieces of information.

5.5.1 Cash flow statement

Medical Practice of Dr Lee
Cash flow statement for the month of October Year 20xx

Operating activities	£
Inflow from fees	3,500
Outflow: rent paid	(1,900)
payment to supplier (P. Jones)	(1,200)
wages	(1,200)
electricity	(100)
Net outflow from operations	(900)
Investing activities	
Payment for equipment	(30,000)
Net outflow for investing activities	(30,000)
Financing activities	£
Capital contributed by owner	50,000
Capital withdrawn as drawings	(1,000)
Net inflow from financing activities	49,000
Increase in cash at bank over period	18,100

Comment: All the amounts for this statement are taken from the 'Cash at bank' column of Exhibit 5.3 but are regrouped for the three headings of operating activities, investing activities and financing activities. The statement shows that the business had a net outflow of cash of £900 due to operations and an outflow of cash amounting to £30,000 due to purchase of medical equipment. The owner contributed £50,000 at the start of the month but took drawings of £1,000 at the end, resulting in a net inflow of £49,000 from financing. The overall effect was an increase in cash over the period amounting to £18,100.

5.5.2 Income statement (profit and loss account)

Medical Practice of Dr Lee
Profit and loss account for the month of October Year 20xx

	£	£
Fees charged		5,500
Medical supplies used	(350)	
Wages	(1,200)	
Rent	(1,900)	
Electricity	(100)	
Depreciation	(250)	
		(3,800)
Profit		1,700

Comment: The total fees charged constitute the total revenue of the period as may be seen in the column in Exhibit 5.3 headed 'revenue'. The expenses of the period amount to £3,800 and are taken from the final column of Exhibit 5.3. The difference between revenue and expenses is the profit of £1,700. This is the amount by which the ownership interest has increased to make the owner of the business better off.

Some students ask at this point why the owner's drawings are not included in the profit and loss account. The answer is that making drawings of cash has nothing to do with the operations of the business. It is a voluntary action taken by the owner, who is also the manager, balancing the owner's personal need for cash against the needs of the business for cash to ensure continued smooth running. Where the owner is the only person working in the business, the owner may regard the drawings as being closer to wages. The amount taken may represent wages in economic terms. However accounting ignores this economic reality and reports all amounts withdrawn by the owner as drawings.

Activity 5.3

The medical practice of Dr Lee has made a profit of £1,700 over the month but the cash flow caused by operations is an outflow of £900. How can a business make a profit and yet see an outflow of cash caused by operations? This question is asked all too often in reality. You can provide the answer by comparing the cash flow due to operating activities and the calculation of net profit. If you are not sure how to make the comparison, look back to Chapter 3 where the financial statements of P. Mason's legal practice were analysed (Exhibit 3.7).

5.5.3 Balance sheet

Medical Practice of Dr Lee
Balance sheet at 31 October Year 20xx

	£	£
Non-current (fixed) assets		
Medical equipment at cost		30,000
Office furniture		6,500
		36,500
Depreciation		(250)
Depreciated cost of fixed assets		36,250
Current assets		
Medical supplies	850	
Trade receivables (debtors)	2,000	
Cash at bank	18,100	
	20,950	
Current liabilities		
Trade payables (creditors)	(6,500)	
Current assets less current liabilities		14,450
Net assets		50,700
Capital at start		50,000
add: profit		1,700
less: drawings		(1,000)
Total ownership interest		50,700

Comment: The balance sheet follows the pattern of the accounting equation. The non-current (fixed assets) are presented first of all, showing the resources available to the business over a longer period of time. The depreciation is deducted to leave an amount remaining which is probably best described as the 'depreciated cost' but is often labelled 'net book value' or 'written down value'. Chapter 8 contains more information on the procedures for measuring and recording depreciation and the limitations of using the word 'value' in relation to those procedures.

The next section contains the **current assets** which are expected to be converted into cash within a 12-month period. The medical supplies shown are those which have not yet been used and therefore remain as a benefit for the next month. Trade receivables (debtors) are those customers who are expected to pay in the near future. The other current asset is the cash held at the bank, which is very accessible in the short term.

The only liability is the amount of £6,500 owing to the Office Supplies Company, due for payment at the start of December. This is a **current liability** because it is due for payment within 12 months.

It is felt to be helpful in the balance sheet to set out subtotals which may guide the reader. These have been shaded in the balance sheet. The total of fixed assets is interesting as the long-term asset base used to generate profits. The difference between the current assets and the current liabilities is sometimes called the **working capital**. At the moment the current assets look rather high in relation to the need to cover current liabilities. This is because the amount of cash held is quite high in relation to the apparent needs of the business. It is possible that Dr Lee has plans to use the cash for business purposes quite soon but, in the absence of such plans, Dr Lee ought to consider investing it to earn interest or else withdrawing it for other uses.

The amount for total assets less total liabilities (A – L) is usually called the **net assets** of the business. (The word 'net' means 'after taking something away' – in this case, after taking away the liabilities.) There is not much to say here except to note that it equals the ownership interest as would be expected from the accounting equation.

The ownership interest has increased over the period through making a profit of £1,700 but decreased by £1,000 through making drawings, so that the resulting increase is £700 overall.

Activity 5.4

Compare the financial statements of Dr Lee's medical practice with the information collected in the spreadsheet of Exhibit 5.3. Take a pencil and, very lightly, place a tick against each amount in the financial statements and a tick against each amount in the spreadsheet, as you match them together. If you are able to work backwards in this way from the financial statements to the spreadsheet then you will be well on the way to understanding how the financial statements are related to the original list of transactions.

5.6 Summary

The first stage in recording a transaction is to think about its effect on the accounting equation.

Assets minus **Liabilities**	equals	**Ownership interest**

A transaction must have at least two effects on the accounting equation. For example, when cash is contributed by the owner there is an *increase* in the **asset** of cash and an *increase* in the **ownership interest**:

Assets ↑ – Liabilities	equals	**Ownership interest** ↑

Accounting transactions may be recorded in a spreadsheet where the columns record the assets and liabilities and the rows record each transaction. The totals at the foot of all columns contain the information for the balance sheet at the end of the period. The columns for revenue and expenditure allow the profit or loss to be calculated. The bank or cash column provides information for the cash flow statement.

QUESTIONS

The Questions section of each chapter has three types of question. 'Test your understanding' questions to help you review your reading are in the 'A' series of questions. You will find the answers to these by reading and thinking about the material in the book. 'Application' questions to test your ability to apply technical skills are in the 'B' series of questions. Questions requiring you to show skills in problem solving and evaluation are in the 'C' series of questions. A letter [S] indicates that there is a solution at the end of the book.

A Test your understanding

A5.1 [S] The following list of transactions relates to a television repair business during the first month of business. Explain how each transaction affects the accounting equation (Section 5.2):

(a) Owner puts cash into the business.
(b) Buy a vehicle for cash.

(c) Receive a bill for electricity consumed.
(d) Purchase stationery for office use, paying cash.
(e) Pay the electricity bill in cash.
(f) Pay rental for a computer, used to keep customer records.
(g) Buy spare parts for cash, to use in repairs.
(h) Buy spare parts on credit terms.
(i) Pay garage service bills for van, using cash.
(j) Fill van with petrol, using credit account at local garage, to be paid at the start of next month.
(k) Carry out repairs for cash.
(l) Carry out repairs on credit terms.
(m) Pay wages to an employee.
(n) Owner takes cash for personal use.

A5.2 [S] Which of the items in the list of transactions in question **A5.1** will have an effect on a profit and loss account?

A5.3 [S] Which of the items in the list of transactions in question **A5.1** will have an effect on a cash flow statement?

A5.4 [S] Which of the items in the list of transactions in question **A5.1** will have an effect on a balance sheet?

A5.5 [S] Analyse each of the following transactions to show the two aspects of the transaction (Section 5.3):

Apr. 1 Jane Gate commenced her dental practice on 1 April by depositing £60,000 in a business bank account.
Apr. 1 Rent for a surgery was paid, £800, for the month of April.
Apr. 2 Dental equipment was purchased for £35,000, paying in cash.
Apr. 3 Dental supplies were purchased for £5,000, taking 30 days' credit from a supplier.
Apr. 4 Fees of £1,200 were collected in cash from patients and paid into the bank account.
Apr. 15 Dental assistant was paid wages for two weeks, £700.
Apr. 20 Jane Gate withdrew £500 cash for personal use.
Apr. 21 Fees of £2,400 were collected in cash from patients and paid into the bank.
Apr. 29 Dental assistant was paid wages for two weeks, £700.
Apr. 29 Invoices were sent to patients who are allowed 20 days' credit, for work done during April amounting to £1,900.
Apr. 30 Telephone bill for April was paid, £80.
Apr. 30 Dental supplies unused were counted and found to be worth £3,500, measured at cost price.

B Application

B5.1 [S]
(a) Using the list of transactions at question **A5.5** prepare a spreadsheet similar to that presented in Exhibit 5.3.
(b) Show that the spreadsheet totals satisfy the accounting equation.

B5.2 [S]
Using the totals from the columns of the spreadsheet of question **B5.1**, prepare for the dental practice in the month of April:

(a) a cash flow statement;
(b) a balance sheet; and
(c) a profit and loss account.

There are no questions in the C series for this chapter.

Supplement to Chapter 5

Recording transactions in ledger accounts – a service business

In the Supplement to Chapter 2 it was shown that the rules for debit and credit bookkeeping may be summarised in terms of the elements of the accounting equation as shown in Exhibit 5.5.

Exhibit 5.5
Rules for debit and credit entries in ledger accounts

	Debit entries in a ledger account	*Credit entries in a ledger account*
Left-hand side of the equation		
Asset	Increase	Decrease
Right-hand side of the equation		
Liability	Decrease	Increase
Ownership interest	Expense	Revenue
	Capital withdrawn	Capital contributed

In the Supplement to Chapter 3 a spreadsheet was used to show that a series of transactions could be analysed and summarised in tabular form. That spreadsheet format is becoming increasingly used as the basis for computer-based recording of transactions but the more conventional approach to analysing transactions is to collect them together in ledger accounts. This supplement takes the transactions of Chapter 5 and analyses them in debit and credit form in order to produce a trial balance as a basis for the preparation of financial statements.

In Exhibit 5.1 some common transactions of a service business were listed and then analysed using the accounting equation. They will now be analysed in terms of where the debit and credit entries would be made in a ledger account. Test yourself by trying out the answer before you look at the answer in Exhibit 5.6 below. Once you are satisfied that you could produce the correct answer for the transactions in Exhibit 5.1, you are ready to deal with Dr Lee's medical practice.

Illustration: Dr Lee's medical practice

The first transaction in Exhibit 5.2 reads:

Oct. 1 Dr Lee provides the practice with cash, £50,000.

The two aspects of this transaction were identified as:

1 Acquisition of an asset (cash).
2 Increasing the ownership interest (voluntary contribution).

The bookkeeping system requires two ledger accounts in which to record this transaction. One ledger account is called Cash and the other is called Ownership interest.

Exhibit 5.6

Analysis of service business transactions (from Exhibit 5.1) to identify two aspects of each

Transaction	*Aspects of the transaction*	*Debit entry in*	*Credit entry in*
Receive cash from the owner	Acquisition of an asset (cash)	Cash	
	Acceptance of ownership interest		Ownership interest
Buy a vehicle for cash	Acquisition of an asset (vehicle)	Vehicle	
	Reduction in an asset (cash)		Cash
Receive a bill for gas consumed	Incur an expense (gas consumed)	Gas expense	
	Incur a liability (to the gas supplier)		Supplier
Pay the gas bill in cash	Decrease a liability (to the gas supplier)	Supplier	
	Reduction in an asset (cash)		Cash
Buy materials for cash	Increase in an asset (inventory of materials)	Inventory (stock)	
	Decrease in an asset (cash)		Cash
Buy materials on credit	Acquisition of an asset (inventory of materials)	Inventory (stock)	
	Incur a liability (to the supplier)		Supplier
Sell services for cash	Acquisition of an asset (cash)	Cash	
	Earn revenue		Sales
Sell services on credit	Acquisition of an asset (trade receivables)	Trade receivables (debtors)	
	Earn revenue		Sales
Pay wages to an employee	Incur an expense (cost of wages)	Wages expense	
	Decrease in asset (cash)		Cash
Pay cash to the owner for personal use	Reduction in the ownership interest	Ownership interest	
	Reduction in an asset (cash)		Cash

There will be a *debit* entry of £50,000 in the Cash ledger account showing that the business has acquired an asset of £50,000 cash. There will be a *credit* entry of £50,000 in the Ownership interest ledger account showing that the business acknowledges the claim of the owner for eventual return of the amount contributed.

The second transaction in Exhibit 5.2 reads:

> Oct. 2 The entity acquires medical equipment for cash, £30,000.

The two aspects of this transaction were identified as:

1 Acquisition of an asset (medical equipment).
2 Decrease of an asset (cash).

Exhibit 5.7

Analysis of debit and credit aspect of each transaction of the medical practice

Date	*Business transactions of medical practice*	*Amount*	*Debit*	*Credit*
		£		
Oct. 1	Dr Lee provides the practice with cash to allow business to start.	50,000	Cash	Owner
Oct. 2	The entity acquires medical equipment for cash.	30,000	Equipment	Cash
Oct. 2	One month's rent is paid in advance for consulting rooms.	1,900	Rent	Cash
Oct. 2	Office furniture is purchased on two months' credit from Office Supplies Company.	6,500	Furniture	Office supplies
Oct. 7	The practice purchases medical supplies on credit from P. Jones and receives an invoice.	1,200	Inventory (stock)	P. Jones
Oct. 8	Dr Lee pays the medical receptionist for one week's work, 2 to 8 October.	300	Wages	Cash
Oct. 10	Four patients are examined, each paying £500 cash.	2,000	Cash	Patients' fees
Oct. 11	The business pays P. Jones in cash for the goods it acquired on credit.	1,200	P. Jones	Cash
Oct. 14	The business pays an electricity bill in cash.	100	Electricity	Cash
Oct. 15	Dr Lee pays the medical receptionist for one week's work, 9 to 15 October.	300	Wages	Cash
Oct. 17	Three patients are examined, their employer (Mrs West) being sent an invoice requesting payment of £500 for each.	1,500	Mrs West	Fees
Oct. 22	Dr Lee pays the medical receptionist for one week's work, 16 to 22 October.	300	Wages	Cash
Oct. 23	The employer (Mrs West) pays in cash for the examination of three patients.	1,500	Cash	Mrs West
Oct. 24	Four patients are examined, their employer (Mr East) being sent an invoice requesting payment of £500 for each.	2,000	Mr East	Fees
Oct. 28	Dr Lee draws cash from the business for personal use.	1,000	Owner	Cash
Oct. 29	Dr Lee pays the medical receptionist for one week's work, 23 to 29 October.	300	Wages	Cash
Oct. 31	The medical equipment and office furniture is estimated by Dr Lee to have fallen in value over the month.	250	Depreciation	Equipment and furniture
Oct. 31	Dr Lee checks the inventory (stock) of medical supplies and finds that items costing £350 have been used during the month.	350	Medical supplies expense	Inventory (stock)

The bookkeeping system requires two ledger accounts in which to record this transaction. One ledger account is called Medical equipment and the other is called Cash.

There will be a *debit* entry of £30,000 in the Medical equipment ledger account showing that the business has acquired an asset of £30,000 medical equipment.

There will be a *credit* entry of £30,000 in the Cash ledger account showing that the business has reduced its asset of cash by £30,000 to pay for the medical equipment.

Analysing the debit and credit entries for each transaction

Exhibit 5.7 takes the information contained in Exhibit 5.2 and analyses it under debit and credit headings showing the ledger accounts in which each entry will be made.

Ledger accounts required to record these transactions are:

L1 Cash	L8 Inventory (stock) of medical supplies
L2 Ownership interest	L9 P. Jones
L3 Medical equipment and office furniture	L10 Electricity
L4 Office Supplies Company	L11 Mrs West
L5 Rent	L12 Mr East
L6 Wages	L13 Depreciation
L7 Patients' fees	L14 Expense of medical supplies

Form of ledger accounts

There is no single standard form of ledger account rulings in which to record debit and credit transactions. Historically, ledger accounts were recorded in what were called 'T' accounts where all the debit entries were on the left-hand side and all the credit entries on the right-hand side. This was designed to minimise arithmetic errors by avoiding subtractions in systems which were dealt with manually.

Form of a 'T' ledger account

Page number and name of the account

Debit entries **Credit entries**

Date	*Particulars*	*Page*	£ p	*Date*	*Particulars*	*Page*	£ p

This type of layout requires a wide page if it is to be read clearly. In recent years ledger accounts have more frequently been prepared in a 'three-column' ruling which keeps a running total. This book will use the three-column ruling throughout. You will see by comparison of the column headings that the different types of rulings use the same information. If you have an opportunity to look at business ledgers you will probably come across yet more varieties, but they will all require the inclusion of this basic set of information.

Three-column ruling

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£ p	£ p	£ p

Features are:

- The left-hand column will show the date of the transaction.
- The 'particulars' column will show essential narrative, usually confined to the name of the ledger account which records the other aspect of the transaction.
- The 'page' column will show the ledger account page number of the ledger account where the other aspect of the transaction is recorded.
- The amount of the transaction will be entered in the debit or credit column as appropriate.
- The 'balance' column will keep a running total by treating all debit entries as positive and all credit entries as negative. A credit balance will be shown in brackets as a reminder that it is negative. Some ledger systems print the letters 'dr' or 'cr' against the balance.

Illustration

The first transaction of Exhibit 5.7 may now be shown in the appropriate ledger accounts. It will require a *debit* entry in a cash account to indicate an increase in the asset of cash and a *credit* entry in the ownership interest account to indicate an increase in the owner's claim.

L1 Cash

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 1	Ownership interest	L2	50,000		50,000

L2 Ownership interest

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 1	Cash	L1		50,000	(50,000)

Ledger accounts for Dr Lee's medical practice

The full ledger account record for the transactions in Exhibit 5.7 is now set out. Leona Rees comments on each ledger account, showing how she interprets ledger accounts in her work of auditing and accounting.

L1 Cash

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 1	Ownership interest	L2	50,000		50,000
Oct. 2	Medical equipment	L3		30,000	20,000
Oct. 2	Rent	L5		1,900	18,100
Oct. 8	Wages	L6		300	17,800
Oct. 10	Patients' fees	L7	2,000		19,800
Oct. 11	P. Jones	L9		1,200	18,600
Oct. 14	Electricity	L10		100	18,500
Oct. 15	Wages	L6		300	18,200
Oct. 22	Wages	L6		300	17,900
Oct. 23	Mrs West	L11	1,500		19,400
Oct. 28	Ownership interest taken as drawings	L2		1,000	18,400
Oct. 29	Wages	L6		300	18,100

LEONA's comment: *The amount of £50,000 put into the business at the start is quickly eaten into by spending cash on medical equipment and paying rent in advance. Further items such as paying a supplier, paying the electricity account and the assistant's wages took the cash balance down further but it remained quite high throughout the month. With the benefit of hindsight the owner might not have needed to put so much cash into the business at the outset. Up to £18,000 could have been invested on a short-term basis to earn interest, either for the business or for Dr Lee.*

L2 Ownership interest

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 1	Cash contributed	L1		50,000	(50,000)
Oct. 28	Cash drawn	L1	1,000		(49,000)

LEONA's comment: *The ownership interest is created when the owner contributes cash or resources to the business. In this case it was cash. The sole trader in business may withdraw cash for personal use at any time – it is called owner's drawings – but the desirability of that action depends on how useful cash is to the owner when compared to how useful it might have been if left in the business. The owner of this business has a claim remaining equal to £49,000 after making the drawing.*

L3 Medical equipment and office furniture

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 2	Cash	L1	30,000		30,000
Oct. 2	Office Supplies Company	L4	6,500		36,500
Oct. 31	Depreciation	L13		250	36,250

LEONA's comment: *This ledger account is particularly useful as a reminder that some very valuable assets are owned by the business. Having a record in the ledger account encourages the owner to think about continuing care for the medical equipment and office furniture and also to review their value against the amount recorded. If Dr Lee intended to have a large number of fixed asset items it is possible to have a separate ledger account for each, but that seems a long-distant prospect at the moment.*

Depreciation is a way of showing that the original cost of the asset has to be spread over its useful life. If the estimate of depreciation is correct, this ledger account should reduce to nil on the day the equipment and furniture ceases to be of use. In reality, things usually are not quite so straightforward. (Depreciation of fixed assets is dealt with in more detail in Chapter 8.)

L4 Office Supplies Company

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 2	Office furniture	L3		6,500	(6,500)

LEONA's comment: *When the office furniture was purchased from the Office Supplies Company, an invoice was received from that company showing the amount due. That invoice was used to make the credit entry on 2 October showing that the business had a liability. The liability remained owing at 31 October, but that is acceptable because the supplier allowed two months' credit.*

L5 Rent

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 2	Cash	L1	1,900		1,900

LEONA's comment: *This payment in advance starts by being an asset and gradually turns into an expense as the benefit is used up. For bookkeeping purposes, a debit entry records both an asset and an expense so it is only at the end of the month that some care is needed in thinking about the nature of the debit balance. In this case it is clear that the benefit is used up but there could be a situation where part of the benefit remained to be reported as an asset.*

L6 Wages

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 8	Cash	L1	300		300
Oct. 15	Cash	L1	300		600
Oct. 22	Cash	L1	300		900
Oct. 29	Cash	L1	300		1,200

LEONA's comment: *This is a straightforward account in which to accumulate all wages expenses. A very enthusiastic accountant would estimate the liability for the final two days of the month and add these on, but there is a very useful idea in accounting called 'materiality' which, broadly interpreted, means the extra information provided would not justify the extra amount of work involved.*

L7 Patients' fees

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 10	Cash	L1		2,000	(2,000)
Oct. 17	Credit: Mrs West (as employer)	L11		1,500	(3,500)
Oct. 24	Credit: Mr East (as employer)	L12		2,000	(5,500)

LEONA's comment: *This is a revenue account so credit entries are expected. The balance column shows the total patients' fees earned in the month were £5,500. This could be described as 'turnover' or 'sales' but both of those words sound rather out of place when a professional service is being described.*

L8 Inventory (stock) of medical supplies

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 7	P. Jones	L9	1,200		1,200
Oct. 31	Expense of medical supplies	L14		350	850

LEONA's comment: *This is an asset account so when the medical supplies were acquired on credit from P. Jones the entire amount was recorded as an asset. These medical supplies will be quite small items and it would not be appropriate for Dr Lee to have to count every cotton wool swab, hypodermic needle or sample bottle used in each examination. It is sufficient for accounting purposes to count up what is left at the end of the period (we call it 'taking stock') and assume that the difference represents the amount used during the period. As an auditor, I might start to ask questions about possible errors, fraud or theft if the amounts of supplies used did not look sensible when compared with the number of examinations carried out on patients.*

L9 P. Jones

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 7	Inventory (stock) of medical supplies	L8		1,200	(1,200)
Oct. 11	Cash	L1	1,200		nil

LEONA's comment: *When the medical supplies were delivered to Dr Lee, the business took on a liability to pay P. Jones. That liability was recorded by a credit entry in the ledger account for P. Jones and was extinguished on 11 October when the medical practice paid £1,200 to P. Jones.*

L10 Electricity

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 14	Cash	L1	100		100

LEONA's comment: *This is a very straightforward expense account. The balance on this account will show the total expense of electricity consumed during the period.*

L11 Mrs West

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 17	Patients' fees	L7	1,500		1,500
Oct. 23	Cash	L1		1,500	nil

L12 Mr East

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 24	Patients' fees	L7	2,000		2,000

LEONA's comment: *The credit sale to the employees of Mrs West and Mr East made them trade receivables (debtors) of the business and so there is a debit entry. By the end of October Mr East had not paid, so remains a debtor, denoted by a debit balance. Mrs West has paid during October and a nil balance is the result.*

L13 Depreciation

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 31	Medical equipment and office furniture	L3	250		250

LEONA's comment: *This is another expense account showing an item which has decreased the ownership interest through a decrease in the recorded amount of some assets. This is where accounting begins to look slightly complicated because no cash has changed hands. Recording depreciation is the accounting way of expressing caution as to the expected future benefits from an asset. These will be eroded as the asset is used up. Depreciation is a way of acknowledging that erosion.*

L14 Expense of medical supplies

Date	*Particulars*	*Page*	*Debit*	*Credit*	*Balance*
			£	£	£
Oct. 31	Inventory (stock) of medical supplies	L8	350		350

LEONA's comment: *This account continues the story from L8 where the inventory (stock) of medical supplies was found to have dwindled through use in examining patients. It is assumed that the difference between the amount purchased and the amount held at the end of the month represents the expense of using the asset during the month.*

Checking the accuracy of double entry records

At periodic intervals it may be considered necessary for a number of reasons to check the accuracy of the entries made in ledger accounts. For instance, the omission of an entry on the debit side of a customer's ledger account for goods sold on credit terms could result in a failure to issue reminders for payment of an amount owed to the business.

There are methods in double entry bookkeeping of discovering these and other errors. One such method is the use of the *trial balance.*

If a debit entry and a credit entry have been made in the appropriate ledger accounts for each business transaction, then the total money amount of all the debit entries will equal the total money amount of all the credit entries. If a debit entry has been made without a corresponding credit entry (or vice versa), then the totals will not agree.

In the ledger accounts shown in this example, the balances have been kept as running totals. It would be possible to add up all the debit and all the credit entries in each ledger account but the same arithmetic proof will be obtained by listing all the debit balances and all the credit balances. It was explained earlier in this supplement that brackets are used in the ledger accounts to show credit balances. The list of balances on all the ledger accounts for Dr Lee's medical practice is set out in Exhibit 5.8.

Error detection using the trial balance

The calculation of the totals of each column of the trial balance is a useful precaution which will reveal some, but not all, of the errors it is possible to make in a debit and credit recording system. Think first about the errors you might make and then check against the following list:

Exhibit 5.8
Trial balance at 31 October for Dr Lee's medical practice

Ledger account title		*Debit*	*Credit*
		£	£
L1	Cash	18,100	
L2	Ownership interest		49,000
L3	Medical equipment and office furniture	36,250	
L4	Office Supplies Company		6,500
L5	Rent	1,900	
L6	Wages	1,200	
L7	Patients' fees		5,500
L8	Inventory (stock) of medical supplies	850	
L9	P. Jones		nil
L10	Electricity	100	
L11	Mrs West	nil	
L12	Mr East	2,000	
L13	Depreciation	250	
L14	Expense of medical supplies	350	
Totals		61,000	61,000

Errors which will be detected by unequal totals in the trial balance

- Omitting one aspect of a transaction (e.g. a debit entry but no credit entry).
- Writing incorrect amounts in one entry (e.g. debit £290 but credit £209).
- Writing both entries in one column (e.g. two debits, no credit).
- Incorrect calculation of ledger account balance.

Errors which will leave the trial balance totals equal

- Total omission of a transaction.
- Errors in both debit and credit entry of the same magnitude.
- Entering the correct amount in the wrong ledger account (e.g. debit for wages entered as debit for heat and light).

Preparing the financial statements

The main part of this chapter set out the balance sheet and profit and loss account of Dr Lee's medical practice for the month of October. If you compare the amounts in the trial balance with the amounts in the financial statements you will see they are the same. The normal practice in accounting is to use the trial balance to prepare the balance sheet and profit and loss account.

In this case it would be a little easier to use the trial balance for this purpose if it were arranged so that all the balance sheet items are together and all the profit and loss account items are together. This is done in Exhibit 5.9.

Exhibit 5.9

Rearranging the trial balance into balance sheet items and profit and loss account items

Ledger account title	£	£
L3 Medical equipment and office furniture	36,250	
L8 Inventory (stock) of medical supplies	850	
L12 Mr East	2,000	
L11 Mrs West	nil	
L1 Cash at bank	18,100	
L4 Office Supplies Company		6,500
L9 P. Jones		nil
L2 Ownership interest		49,000
Subtotal	*57,200*	*55,500*
Difference: profit of the month		*1,700*
L7 Patients' fees		5,500
L14 Expense of medical supplies	350	
L6 Wages	1,200	
L5 Rent	1,900	
L10 Electricity	100	
L13 Depreciation	250	
Subtotal	*3,800*	*5,500*
Difference: profit of the month	*1,700*	
Total of ledger balances in each column	*61,000*	*61,000*

This form of trial balance will be used in later chapters as the starting point for the preparation of financial statements.

By way of providing further help in preparing the profit and loss account and balance sheet, subtotals are calculated for each part of the trial balance in Exhibit 5.9. The difference between the subtotals in each section gives the profit amount. That is because the exhibit has been subdivided according to two equations, each of which leads to profit:

Assets	*minus*	Liabilities	*minus*	Capital contributed/ withdrawn	*equals*	Profit

Revenue	*minus*	Expenses	*equals*	Profit

S Test your understanding

S5.1 Prepare ledger accounts for the transactions of Jane Gate's dental practice, listed in question **A5.5**.

S5.2 Which of the following errors would be detected at the point of listing a trial balance?

(a) The bookkeeper enters a cash sale as a debit of £49 in the cash book and as a credit of £94 in the sales account.
(b) The bookkeeper omits a cash sale of £23 from the cash book and from the sales accounts.
(c) The bookkeeper enters cash received of £50 from Peter Jones as a debit in the cash book but enters the credit of £50 in the ledger account of Roger Jones.
(d) The bookkeeper enters a cash sale as a credit of £40 in the cash book and as a debit of £40 in the sales account.