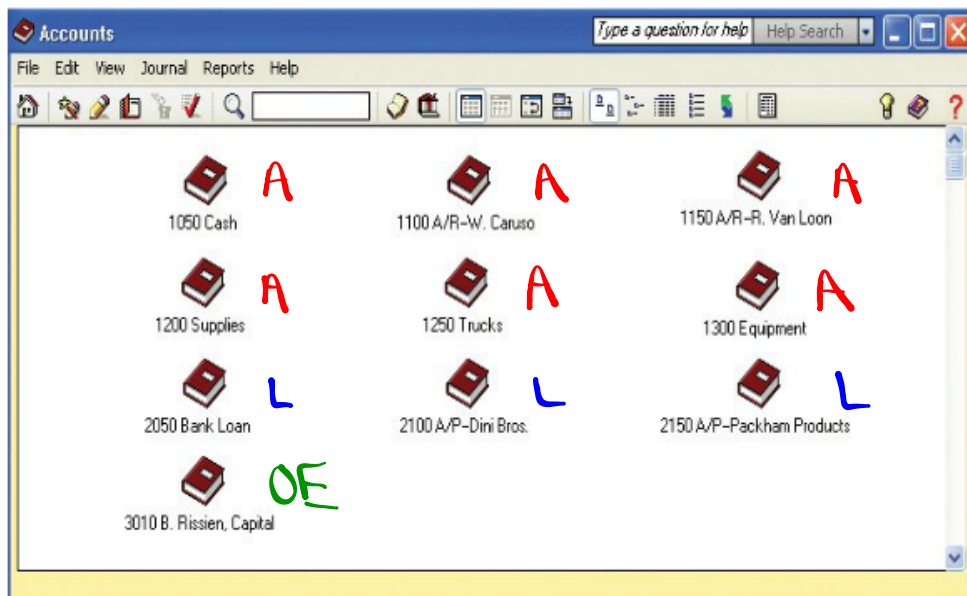


## 4.1 ► Ledger Accounts

In this chapter, you will be learning the system used to maintain an up-to-date financial position. For this purpose, accountants long ago developed the account and the ledger.

An **account** is a record that documents each change to items in the accounting equation. There is one account for each asset, each liability, and each type of equity. (Currently, you know only one classification of equity, that is, capital.) All the accounts together are called the ledger. A **ledger** is a group or file of accounts.

Accounts can be prepared in different ways. They can be designed on cards to form a card ledger. They can be prepared on paper to form a paper ledger, or they can be created electronically in a software program. While all these methods may still be used, computer software accounts and ledgers now dominate the business world. The ledger illustrated in Figure 4.1 was created with an accounting software program called Sage Simply Accounting. This ledger contains 10 accounts: six assets, three liabilities, and one equity.



**Figure 4.1**

A ledger created with Sage Simply Accounting software

The accounts in Figure 4.1 refer to the records of Pacific Trucking, owned by Byron Rissien of Kelowna, British Columbia. The balance sheet of this business is shown in Figure 4.2 below.

PACIFIC TRUCKING BALANCE SHEET JUNE 30, 20--			
<b>Assets</b>		<b>Liabilities</b>	
Cash	\$ 3 265	Bank Loan	\$18 000
A/R – W. Caruso	150	A/P – Dini Bros.	1 516
A/R – R. Van Loon	620	A/P – Packham Products	3 946
Supplies	2 465	Total Liabilities	\$23 462
Trucks	55 075	<b>Owner's Equity</b>	
Equipment	22 174	B. Rissien, Capital	60 287
Total Assets	<u>\$83 749</u>	Total Liabilities and Equity	<u>\$83 749</u>

**Figure 4.2**  
The balance sheet of Pacific Trucking

The information from this balance sheet is used to set up the separate accounts. The dollar value for each item on the balance sheet gives the beginning value for that item's account.

Using manual methods instead of electronic, we will now examine the ledger for Pacific Trucking. There are 10 accounts, one for each item on the balance sheet. These accounts are Cash; Accounts Receivable–W. Caruso; Accounts Receivable–R. Van Loon; Supplies; Trucks; Equipment; Bank Loan; Accounts Payable–Dini Bros.; Accounts Payable–Packham Products; and B. Rissien, Capital. All these accounts together form the ledger for Pacific Trucking.

Assets		=	Liabilities + Owner's Equity	
Cash	A/R W. Caruso		Bank Loan	B. Rissien, Capital
3 265	150		18 000	60 287
A/R R. Van Loon	Supplies		A/P Dini Bros.	
620	2 465		1 516	
Trucks	Equipment		A/P Packham Products	
55 075	22 174		3 946	

**Figure 4.3**  
The simple ledger accounts of Pacific Trucking

Figure 4.3 above shows the information from the balance sheet of Pacific Trucking presented as accounts in a ledger. These accounts are called T-accounts because, as you can see, each one looks like a T. The T-account is a simple type of account, used mainly to help you understand accounting theory. A more formal account for recording business entries will be introduced in Chapter 6.

Since accounts are internal records and not normally shown to outsiders, dollar signs beside the beginning values are unnecessary.

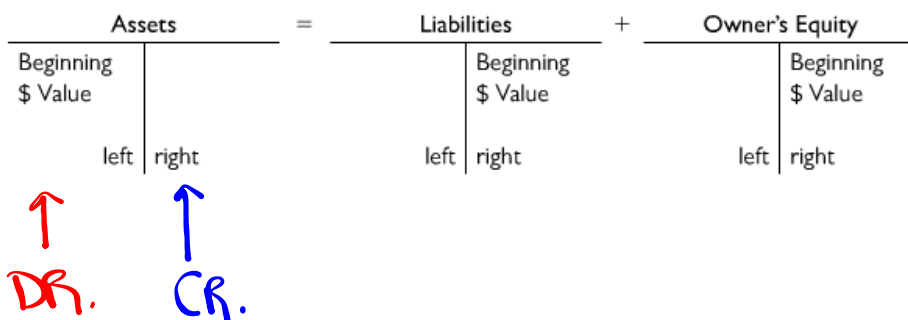
- Asset balances are shown on the left or debit (DR.) side.
- Liability balances are shown on the right or credit (CR.) side.
- Owner's Equity balances are shown like so:
  - Capital and Revenues/Sales are on the right
  - Drawings & Expenses are on the left.

### Important Features of Ledger Accounts

Using the ledger shown in Figure 4.3 on page 89 as a guide, let us look at important features shared by simple ledger accounts.

1. Each individual balance sheet item is given its own T-account with the name of the item at the top. In Figure 4.3, there are 10 accounts. Learn to call them the Cash account, the R. Van Loon account, the Packham Products account, the Bank Loan account, and so on.
2. The dollar figure for each item is recorded in the account on the first line. This is the beginning value for the account.
3. For any item, the correct side for its beginning value is the side on which the item itself would appear in the accounting equation ( $A = L + OE$ ). For *assets*, like cash or supplies, beginning values are on the *left* side of the T because assets are on the left side of the equation. For *liabilities* and *equity* items, like bank loan or capital, beginning values are on the *right* side of the T because liabilities and equity are on the right side of the equation.

Each account in Pacific Trucking's ledger follows these three rules, which are summarized in the diagram below.



## 4.2 ▶ Debit and Credit Theory

So far, you have learned that the idea that there is a “left side” and a “right side” is important in accounting. This is especially true when using ledger accounts. The theory of accounting using ledger accounts is based entirely on the understanding that every account has these two distinct sides.

The two sides of an account are described in the same way by accountants everywhere. **Debit** is the word associated with the left side of an account. **Credit** is the word associated with the right side of an account. In accounting terms, debit means left, credit means right.

Remember that the two new terms apply to every account, as shown below.

Any Account	
left side	right side
debit	credit
(short form dr or Dr)	(short form cr or Cr)

### The Rules of Debit and Credit

You are familiar with the simple ledger and the terms debit and credit. You have also discovered which side of the account to use to record the beginning value for each type of account. Now you are ready to learn how changes are recorded in the accounts. There is a simple set of rules for recording changes in accounts. *For each type of account, record increases on its beginning value side and decreases on the other side.* These rules are summarized, using the terms debit and credit, in the chart below.

$$A = L + OE$$



Type of Accounts	Beginning Value Side	Increases	Decreases
ASSET accounts	DEBIT	DEBIT	CREDIT
LIABILITY and OWNER'S EQUITY accounts	CREDIT	CREDIT	DEBIT

In T-account form, the rules of debit and credit can be simplified even further, using the fundamental accounting equation as shown.

Assets		=	Liabilities		+	Owner's Equity	
Debit	Credit		Debit	Credit		Debit	Credit
+	-		-	+		-	+

**TRANSACTION 1** The company purchases \$200 worth of supplies from Packham Products, to be paid for later.

**Analysis**

When learning to analyze a transaction correctly, it is helpful to use a transaction analysis sheet. This sheet, shown below, provides a place to organize your thoughts about the transaction. Proceed according to the following steps:

(A) Account Names	(B) Asset, Liability, or Owner's Equity	(C) Increase (+) or Decrease (-)	(D) Debit or Credit	(E) Amount
Supplies	Asset	+	Dr	200
A/P – Packham Products	Liability	+	Cr	200

This final step completes what is known as the accounting entry for the transaction. An **accounting entry** may be defined as all of the changes in the accounts caused by one business transaction, expressed in terms of debits and credits.

An accountant would express the accounting entry for transaction 1 in the following way: debit Supplies and credit A/P–Packham Products, \$200. Notice that the debited account is stated first. The credited account is stated second. After the changes are recorded in the appropriate accounts, the two accounts affected appear as shown below.

<p style="margin: 0;">Supplies</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;"> <p style="margin: 0; text-align: right;">2 465</p> <p style="margin: 0; text-align: right;">① 200</p> </td> <td style="width: 50%; padding: 5px;"> </td> </tr> </table>	<p style="margin: 0; text-align: right;">2 465</p> <p style="margin: 0; text-align: right;">① 200</p>		<p style="margin: 0; text-align: center;">A/P Packham Products</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;"> <p style="margin: 0; text-align: right;">3 946</p> <p style="margin: 0; text-align: right;">200 ①</p> </td> <td style="width: 50%; padding: 5px;"> </td> </tr> </table>	<p style="margin: 0; text-align: right;">3 946</p> <p style="margin: 0; text-align: right;">200 ①</p>	
<p style="margin: 0; text-align: right;">2 465</p> <p style="margin: 0; text-align: right;">① 200</p>					
<p style="margin: 0; text-align: right;">3 946</p> <p style="margin: 0; text-align: right;">200 ①</p>					

← Transaction #1

Notice that the transaction includes both a debit and a credit, and that the totals of the debit and credit amounts are equal. This is the case with every transaction. The accounting equation remains in balance after the transaction is recorded, as shown in the illustration on the next page.

**TRANSACTION 2** The company pays \$500 to Dini Bros. in partial payment of the amount owed to them.

*Analysis*

This transaction is recorded on a transaction analysis sheet as follows:

(A) Account Names	(B) Asset, Liability, or Owner's Equity	(C) Increase (+) or Decrease (-)	(D) Debit or Credit	(E) Amount
A/P – Dini Bros.	Liability	–	Dr	② 500–
Cash	Asset	–	Cr	② 500–

Transaction # 2

An accountant would express the accounting entry as follows: debit A/P–Dini Bros. and credit Cash, \$500.

After the changes are recorded, the two accounts affected appear as shown below.

Cash	A/P Dini Bros.
3 265   500 ②	② 500   1 516

**TRANSACTION 3** The company receives \$200 cash from R. Van Loon in partial payment of her debt.

*Analysis*

The accounting entry for this transaction is worked out on the transaction analysis sheet as follows:

(A) Account Names	(B) Asset, Liability, or Owner's Equity	(C) Increase (+) or Decrease (-)	(D) Debit or Credit	(E) Amount
Cash	Asset	+	Dr	③ 200-
A/R - R. Van Loon	Asset	-	Cr	③ 200-

Read the changes as follows: debit Cash and credit A/R-R. Van Loon, \$200.

After the changes are recorded, the two accounts affected appear as shown below.

Cash		A/R R. Van Loon	
3 265	500 ②	620	200 ③
③ 200			



**TRANSACTION 4** A delivery service is provided for a customer at a price of \$400. The customer pays cash at the time the service is completed.

**Analysis**

The accounting entry for this transaction is worked out on the transaction analysis sheet as follows:

(A) Account Names	(B) Asset, Liability, or Owner's Equity	(C) Increase (+) or Decrease (-)	(D) Debit or Credit	(E) Amount
Cash	Asset	+	Dr	④ 400-
B. Rissien, Capital	Owner's Equity	+	Cr	④ 400-

Read the changes as follows: debit Cash and credit B. Rissien, Capital, \$400.

After the changes are recorded, the two accounts affected appear as shown below.

Cash	B. Rissien, Capital
3 265   500 ② ③ 200   ④ 400	60 287 400 ④

There is an increase in assets. Since the liabilities are unaffected, the owner gets to claim this increase. As a result, the accounting equation remains in balance, as seen below.

**TRANSACTION 5** A used truck costing \$8000 is purchased from Dini Bros. A cash down payment of \$2500 is made at the time of the purchase and the balance is to be paid at a later date.

*Analysis*

This transaction affects three accounts. The accounting entry for the transaction is worked out on the transaction analysis sheet as follows:

(A) Account Names	(B) Asset, Liability, or Owner's Equity	(C) Increase (+) or Decrease (-)	(D) Debit or Credit	(E) Amount
Trucks	Asset	+	Dr	⑤ 8 000-
Cash	Asset	-	Cr	⑤ 2 500-
A/P - Dini Bros.	Liability	+	Cr	⑤ 5 500-

} total credits 8000

Read these changes: debit Trucks, \$8000; credit Cash, \$2500; credit A/P-Dini Bros., \$5500.

After the changes are recorded, the three accounts affected appear as shown below.

<b>Trucks</b>	<b>Cash</b>	<b>A/P Dini Bros.</b>
55 075 ⑤ 8 000	3 265    500 ② ③ 200    2 500 ⑤ ④ 400	② 500    1 516 5 500 ⑤

**TRANSACTION 6** A delivery service is completed for R. Van Loon at a price of \$350. Van Loon does not pay for the service at the time it is provided, but agrees to pay within 30 days.

**Analysis**

The accounting entry for this transaction is worked out on the transaction analysis sheet as follows:

(A) Account Names	(B) Asset, Liability, or Owner's Equity	(C) Increase (+) or Decrease (-)	(D) Debit or Credit	(E) Amount
A/R – R. Van Loon	Asset	+	Dr	Ⓔ 350–
B. Rissien, Capital	Owner's Equity	+	Cr	Ⓔ 350–

Read these changes: debit A/R–R. Van Loon and credit B. Rissien, Capital, \$350.

After the changes are recorded, the two accounts affected appear as shown below.

A/R. Van Loon	B. Rissien, Capital
620 Ⓔ 350	200 Ⓒ 60 287 400 Ⓓ 350 Ⓔ

The business is better off as a result of this transaction. There are more assets for the owner to claim, as demonstrated in the illustration on the next page.

**TRANSACTION 7** One of the lifting machines (part of Equipment) breaks down. The company spends \$650 cash to have the machine repaired.

A common mistake made by students dealing with this type of transaction is to increase the Equipment account. This action would give the impression that the equipment had somehow increased in value by being repaired. Clearly, this is not the case. To help you to avoid this mistake, here is a clue: the business is worse off financially as a result of this transaction. Equity will therefore decrease.

*Analysis*

This transaction is worked out on the transaction analysis sheet as follows:

(A) Account Names	(B) Asset, Liability, or Owner's Equity	(C) Increase (+) or Decrease (-)	(D) Debit or Credit	(E) Amount
Cash	Asset	-	Cr	⑦ 650-
B. Rissien, Capital	Owner's Equity	-	Dr	⑦ 650-

Read the changes: debit B. Rissien, Capital and credit Cash, \$650.

After the changes are recorded, the two accounts affected appear as shown below.

<p style="margin: 0;"><b>Cash</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: right; padding-right: 10px;">3 265</td> <td style="width: 50%; text-align: left; padding-left: 10px;">500 ②</td> </tr> <tr> <td style="text-align: right; padding-right: 10px;">③ 200</td> <td style="text-align: left; padding-left: 10px;">2 500 ⑤</td> </tr> <tr> <td style="text-align: right; padding-right: 10px;">④ 400</td> <td style="text-align: left; padding-left: 10px;">650 ⑦</td> </tr> <tr> <td style="border-top: 1px solid black; text-align: right; padding-top: 5px;">215</td> <td></td> </tr> </table>	3 265	500 ②	③ 200	2 500 ⑤	④ 400	650 ⑦	215		<p style="margin: 0;"><b>B. Rissien, Capital</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: left; padding-left: 10px;">⑦ 650</td> <td style="width: 50%; text-align: right; padding-right: 10px;">60 287</td> </tr> <tr> <td></td> <td style="text-align: right; padding-right: 10px;">400 ④</td> </tr> <tr> <td></td> <td style="text-align: right; padding-right: 10px;">350 ⑥</td> </tr> <tr> <td></td> <td style="border-top: 1px solid black; text-align: right; padding-top: 5px;">61 387</td> </tr> </table>	⑦ 650	60 287		400 ④		350 ⑥		61 387
3 265	500 ②																
③ 200	2 500 ⑤																
④ 400	650 ⑦																
215																	
⑦ 650	60 287																
	400 ④																
	350 ⑥																
	61 387																

The business has fewer assets for the owner to claim. Both assets and owner's equity decrease, leaving the accounting equation in balance, as shown below.

### Double-Entry System of Accounting

Whenever a transaction occurs, changes must be made in the accounts. For each transaction, all of the account changes together must balance. These are known as the accounting entry for the transaction.

In this chapter so far, there have been seven transactions. They are summarized in Figure 4.4.



The double-entry system using debits and credits is crucial to your understanding of accounting. For a review of this system, visit the *Accounting 1* website.

Transaction	Account Names	Account Classifications A, L, OE	Debit or Credit	Amount
1	Supplies	A	Dr	\$ 200
	A/P – Packham Products	L	Cr	\$ 200
2	A/P – Dini Bros.	L	Dr	\$ 500
	Cash	A	Cr	\$ 500
3	Cash	A	Dr	\$ 200
	A/R – R. Van Loon	A	Cr	\$ 200
4	Cash	A	Dr	\$ 400
	B. Rissien, Capital	OE	Cr	\$ 400
5	Trucks	A	Dr	\$8 000
	Cash	A	Cr	\$2 500
	A/P – Dini Bros.	L	Cr	\$5 500
6	A/R – R. Van Loon	A	Dr	\$ 350
	B. Rissien, Capital	OE	Cr	\$ 350
7	B. Rissien, Capital	OE	Dr	\$ 650
	Cash	A	Cr	\$ 650

**Figure 4.4**

Seven accounting entries for Pacific Trucking

} 8000

As you have noticed, each of the above seven transactions balances within itself. For each transaction, the total of the debit amounts equals the total of the credit amounts. This is basic to the whole accounting process and is true for every possible transaction. If you ever find an accounting entry that does not balance within itself, you can be certain that it is not correct. On the other hand, a balanced entry is not necessarily a correct entry. If the entry balances, that means that it is probably correct. If it does not balance, there is no chance that it is correct.

Now you can understand why the system you have been working with is known as the **double-entry system of accounting**. In the double-entry system of accounting, every transaction is recorded in the accounts in two steps. It is recorded first as a debit (or debits) and second as a credit (or credits), so that the total of the debit entries equals the total of the credit entries. The double-entry system of accounting is in general use throughout the business world.



## Account Balances and Terminology

◀ 4.3

You started working with the accounts of Pacific Trucking on page 89. Then you worked out the accounting entries for seven transactions. After these accounting entries are entered in the accounts, the ledger appears as shown in Figure 4.5.

Assets		=	Liabilities		+	Equity	
<b>Cash</b>			<b>A/R W. Caruso</b>			<b>Bank Loan</b>	
3 265	500 ②		150			18 000	
③ 200	2 500 ⑤					<b>B. Rissien, Capital</b>	
④ 400	650 ⑦					⑦ 650	60 287
							400 ④
							350 ⑥
<b>A/R R. Van Loon</b>			<b>Supplies</b>			<b>A/P Dini Bros.</b>	
620	200 ③		2 465		② 500	1 516	
⑥ 350			① 200			5 500 ⑤	
<b>Trucks</b>			<b>Equipment</b>			<b>A/P Packham Products</b>	
55 075			22 174			3 946	
⑤ 8 000						200 ①	

**Figure 4.5**

The ledger of Pacific Trucking after recording the accounting entries for seven transactions. Opening balances appear in blue.

In the ledger of Pacific Trucking, there are 10 accounts. The following information is stored in each account:

1. the name of the account, which is written at the top
2. the dollar value of the account and an indication of whether the value of the account is a debit or a credit

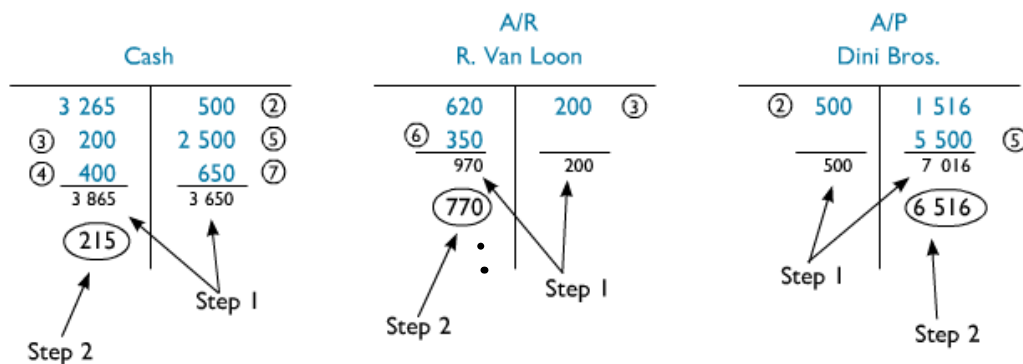
### Calculating the Balance of an Account

The **account balance** gives the dollar value of an account and shows whether it is a debit or credit value. Calculating the account balance should be easy for you because you now realize that debits and credits have opposite effects in accounts. If debits increase an account, then credits decrease it. Conversely, if credits increase an account, then debits decrease it.

If you are working without the benefit of a calculator, follow the steps below to calculate the balance of a T-account.

**Step 1** Add the two sides of the account separately. Use tiny pencil figures to write down these two subtotals, one beneath the last item on each side. Traditionally, these tiny totals have been referred to as **pin totals** or **pencil footings**.

**Step 2** A. Subtract the smaller total from the larger total.  
 B. Write the result beside or beneath the larger of the two pin totals from Step 1. For now, circle this final amount.



**Figure 4.6**  
Calculating the balance of a T-account using pin totals

Step 2:

$$3865 - 3650 = 215$$



Ex: Bank (Cash)

1000	500 ③
① 3500	1000 ④
② 650	
⑤ 2000	
<hr/>	<hr/>
7350	1500

Step 1

5850

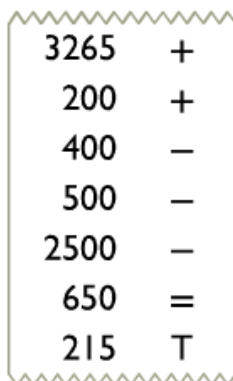
Step 2:

$$7350 - 1500 = 5850$$

**Step 3** Enter the amounts from the opposite side of the T-account. Press the minus symbol after all amounts except the last one. When you enter the last amount, press the equals symbol. The result on the calculator is the account balance.

Figure 4.7 shows the steps to take for balancing the Cash account of Pacific Trucking using an electronic calculator. Notice that pin totals are ignored in this example. Your calculator might be slightly different, and you might want to use your own variations, such as storing the balance of each side of the account in your calculator's temporary memory.

If you start entering amounts from the normal side of account, the balance on your calculator should be a positive number. If it is negative, you have either made an error or the account has an exceptional balance.



3265	+
200	+
400	-
500	-
2500	-
650	=
215	T

**Figure 4.7**

Calculating the balance of Pacific Trucking's Cash account using an electronic calculator

## Exceptional Account Balances **ASSETS**

Occasionally, an account that would normally have a debit balance ends up with a credit balance, or vice versa. An opposite balance is not necessarily the result of a mistake, although that possibility should certainly be checked out. There may be a good reason for an account to end up with a balance opposite to its normal one.

For example, suppose that Jack Evans, a customer, owes us \$50. Suppose also that he sends a cheque for \$55 in payment. His account will end up with a credit balance of \$5, even though he is a customer and normally has a debit balance. The account balance is correct. It shows that the business owes Jack Evans \$5. The account is temporarily a liability account.

A similar situation can affect the Bank account. Many businesses and people have overdraft agreements with their banks. An overdraft agreement is a financial contract that allows a deposit account to go below zero. Wise business people use overdraft protection to avoid the embarrassment and service charges that occur when there are non-sufficient funds (NSF) in the bank account to cover the cheques written.

If the total of the credit entries are greater than the total of the debit entries, we end up with a credit balance in the Bank account. This balance would show up as a negative amount on your calculator. What does this credit balance mean? It means that the Bank account is temporarily in a liability position and that we are in debt to the bank.

Other transactions can bring about exceptional balances as well. Consider the following:

- your business overpays an account payable
- a customer with no account balance returns unsatisfactory merchandise for credit
- a purchaser returns goods for credit to a supplier with whom there is no account balance

Exceptional balances do not last long. Ordinary business activity usually causes them to return quickly to normal.

$$A = L + OE$$

**ASSETS** → Normally have a debit balance

**LIABILITIES** → Normally have a credit balance

**OWNER'S EQUITY** → " " " " "

### Interpreting the Balance of an Account

The existence of exceptional balances should make it clear to you that it is not enough to simply find the account balances. You should now learn to analyze and interpret the information stored in the accounts. They must mean something to you. Look back at the accounts in Figure 4.6, on page 106, and see what you can learn from them.

It should be clear what the account balances are. The Cash account has a balance of \$215, and it is a debit balance because it is entered on the left side. Similarly, the R. Van Loon account has a balance of \$770, debit, and the Dini Bros. account has a balance of \$6516, a credit.

So far, you are familiar with three types of accounts: assets, liabilities, and capital. At this stage, all accounts fall into one of these categories. You already know that assets have debit balances and that liabilities and capital have credit balances.

It follows therefore that

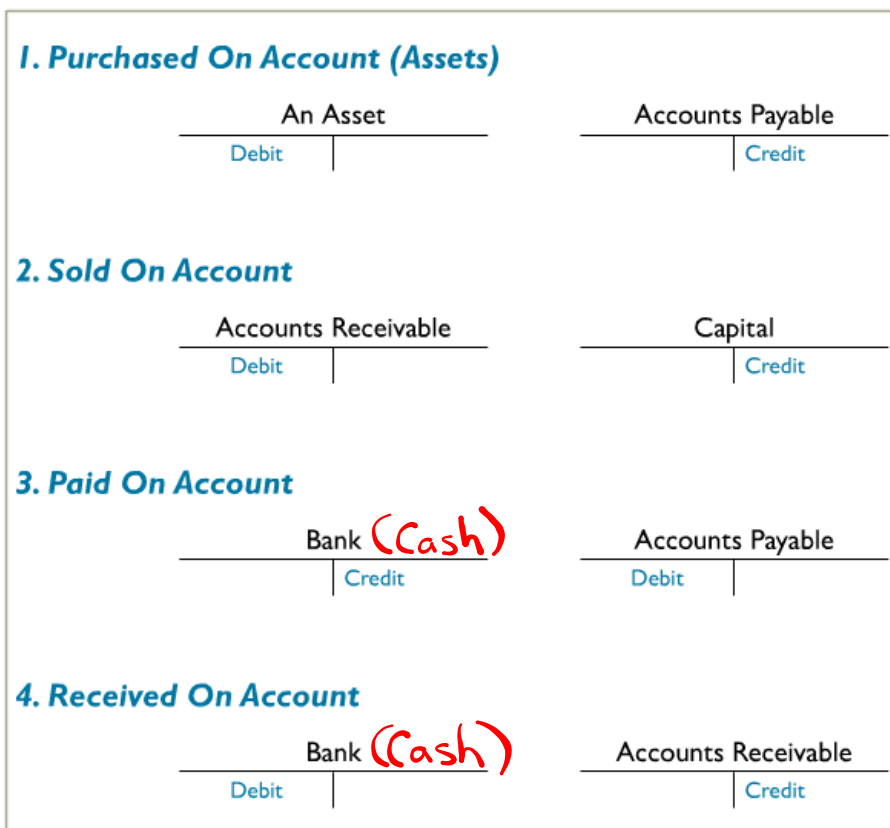
- the Cash account is an asset because it has a debit balance
- the R. Van Loon account is an asset (an account receivable) because it has a debit balance
- the Dini Bros. account is a liability (an account payable) because it has a credit balance and is not the capital account

### On Account

The term “on account” is used extensively in business. It is an essential part of business vocabulary. The term is used in four specific ways.

1. If an item is purchased on credit, this means that it is not paid for at the time of purchase. This is a **purchase on account**.
2. When an item is sold on credit, cash is not received at the time it is sold. This is a **sale on account**.
3. If money is paid out to a creditor to decrease the amount owed, it is a **payment on account**.
4. When money is received from a debtor to reduce the amount owed, it is a **receipt on account**.

Your ability to analyze transactions will improve by learning the four ways “on account” is used. Figure 4.8 shows the account titles that are typically involved with “on account” transactions. Notice that all four uses of “on account” affect either accounts receivable or accounts payable.



**Figure 4.8**

Typical accounting entries generated by “on account” transactions

## Trial Balance

◀ 4.4

When setting up a ledger, as in Figure 4.3 on page 89, the information for the accounts is usually obtained from a balance sheet. This way, the ledger begins in a balanced position. The total of the accounts with debit balances equals the total of the accounts with credit balances.

The changes caused by business transactions are recorded in the ledger. These changes are all in the form of balanced accounting entries, that is, entries where debits equal credits. As a result, the ledger should be balanced after each full accounting entry. Just as a balance sheet must balance, a ledger must also balance.

Periodically, it is necessary to check the accuracy of the ledger. This is done by means of a trial balance. Taking off a trial balance is a simple procedure used to find out if the ledger is in balance. A trial balance is a listing of the account balances in a ledger. It is used to see if the dollar value of the accounts with debit balances is equal to the dollar value of the accounts with credit balances. To do this, you simply add up all of the debit balances, add up all of the credit balances, and see if the two totals are the same. If they agree, the ledger is said to be **in balance**. If they do not agree, the ledger is said to be **out of balance**. In manual accounting systems the whole process, called taking off a trial balance, was usually done at the end of each week or month.

If you use a computerized accounting system, the ledger is never out of balance. Accounting software programs prevent users from entering unbalanced accounting entries. Debits must always equal credits. Since accounting software can sort and calculate amounts without errors, the ledger is always in balance.

The completed ledger for Pacific Trucking is shown in Figure 4.9 below. Let us now see if it is in balance by following the steps shown on page 113.

Total Debits = Total Credits

A = L + OE

ASSETS		=	LIABILITIES + EQUITY	
	Bank		Bank Loan	
	3 265 ③ 200 ④ 400 <hr style="width: 80%; margin: 0;"/> 3 865 215	A/R W. Caruso 150	18 000	B. Rissien, Capital ⑦ 650 <hr style="width: 80%; margin: 0;"/> 60 287 400 ④ 350 ⑥ <hr style="width: 80%; margin: 0;"/> 61 037 60 387
	A/R R. Van Loon 620 ⑥ 350 <hr style="width: 80%; margin: 0;"/> 970 770	Supplies 2 465 ① 200 <hr style="width: 80%; margin: 0;"/> 2 665 2 665	A/P Dini Bros. ② 500 <hr style="width: 80%; margin: 0;"/> 500 1 516 5 500 ⑤ <hr style="width: 80%; margin: 0;"/> 7 016 6 516	
	Trucks 55 075 ⑤ 8 000 <hr style="width: 80%; margin: 0;"/> 63 075 63 075	Equipment 22 174	A/P Packham Products 3 946 200 ① <hr style="width: 80%; margin: 0;"/> 4 146 4 146	

**Figure 4.9**  
The completed ledger for Pacific Trucking Company

### Methods of Taking Off a Trial Balance

To take off a trial balance, proceed as follows:

- Step 1** Write a heading at the top. It must show the name of the individual or business, the title "Trial Balance," and the date.
- Step 2** List all the accounts and their balances. Dollar signs are unnecessary because the trial balance is an internal record and not normally shown to outsiders.
- Step 3** Place the debit balances in a debit column and the credit balances in a credit column.
- Step 4** Add up the two columns.
- Step 5** See if the two column totals are the same. If they are, write the totals and finish by drawing a rule above and a double rule below them to indicate a final balance amount. If the column totals are not the same, you must find your errors.

The completed trial balance for the ledger on page 112 is shown in Figure 4.10 below.

PACIFIC TRUCKING		
TRIAL BALANCE		
JULY 2, 20--		
Accounts	DEBITS	CREDITS
Bank (Cash)	2 1 5 -	
A/R - W. Caruso	1 5 0 -	
A/R - R. Van Loon	7 7 0 -	
Supplies	2 6 6 5 -	
Trucks	6 3 0 7 5 -	
Equipment	2 2 1 7 4 -	
Bank Loan		1 8 0 0 0 -
A/P - Dini Bros.		6 5 1 6 -
A/P - Packham Products		4 1 4 6 -
B. Rissien, Capital		6 0 3 8 7 -
	8 9 0 4 9 -	8 9 0 4 9 -

Heading: Who?  
What?  
When?

Account balances listed in correct columns.

Account balances listed in the order they appear in the ledger.

Column totals must agree.

single rule

double rule

**Figure 4.10**  
The trial balance for the ledger of Pacific Trucking Company



A quick, informal way to take off a trial balance is by using your electronic calculator. The procedure is as follows:

**Step 1** Clear the calculator.

**Step 2** Enter the balances in the order they appear in the ledger. Make sure to enter the debits as + amounts and the credits as – amounts.

**Step 3** After the last amount is entered, press the equals key. If the ledger work is correct, the sum of the + entries will be equal to the sum of the – entries. Therefore, the total should be 0.00. (zero balance)

The calculator method of taking off a trial balance can be referred to as a zero-proof. Be certain that you understand the principle involved. Your work is arithmetically correct if you get zero for your calculator total. Your work is incorrect if you do not get zero for your calculator total. If the total is not zero, you must begin a search for the error (or errors).

### Importance of the Trial Balance

It is essential to an accountant to have the ledger in balance. The work is not accurate if the ledger is not in balance. A ledger out of balance is a certain sign that at least one error has been made in the accounts. All errors must be found and corrected.

### Trial Balance out of Balance

Some trial balances may not work out on the first attempt. When the trial balance is out of balance, at least one error has been made in the accounting process. It is the accountant's job to find and correct these errors. The errors may have been caused by faulty addition, by entering an item on the wrong side, or by other mistakes.

Even if the ledger is in balance, it might still have errors in it. A ledger that is in balance may only be mechanically or mathematically correct. The accountant may have made incorrect entries that were balanced ones. Errors such as these are often the most difficult to find.

It takes a methodical approach to locate accounting errors because they are often quite difficult to detect. Skill in finding errors is a great advantage to an accountant.

For now, there is a four-step procedure to follow if you find a ledger that does not balance. This method is expanded in Chapter 7. The four steps are:

**Step 1** Re-add the trial balance columns.

**Step 2** Check the account balances from the ledger against those copied to the trial balance. Make sure that none are missing, none are on the wrong side, and none are for the wrong amount.

**Step 3** Recalculate the account balances.



**Step 4** Check that there is a balanced accounting entry in the accounts for each transaction.

You may complete all four steps and still not have balanced the ledger. When this happens, it means that you have made an error in one of the steps. You will have to go through them again, this time working more carefully. If all of the steps are done correctly, the errors will be found, and the ledger will be balanced.

## Homework

Section 4.4 on page 115

Review questions 1-7

Exercise 1-5

**SECTION 4.4 REVIEW QUESTIONS** (page 115)

1. The initial amounts for the ledger are taken from the balance sheet, which is in balance, so the ledger accounts start off with debit totals equalling credit totals. The changes caused by business transactions are all in the form of balanced accounting entries (debits = credits). Therefore, a correct ledger will always show debit account balances equalling credit account balances.
2. To balance a ledger, first write the heading (company name, Trial Balance, and date) at the top of a sheet of columnar paper. List all the accounts. Write the debit balances in the debit column and the credit balance in the credit column. Add the two columns. Check that the two column totals are the same. If they are, draw a single line above and a double line below each total. If the totals are not the same, find the errors and correct the ledger and trial balance.
3. To take off a trial balance using an electronic calculator, first clear the calculator. Enter the balances in order, using a + for debits and a - for credits. Once all the balances are entered, press the enter key. If the ledger is in balance, the total will be zero. If the total is not zero, find the errors and correct the ledger.
4. It is important for the ledger to be in balance because this helps prove the accounts are accurate. If the ledger is not in balance there is at least one error in the ledger that must be found and corrected.
5. A completed trial balance is filed for future reference.
6. If you complete the procedure for balancing the ledger and the ledger is still not in balance, you must find and correct the errors. The ledger is not accurate unless it is in balance.
7. To balance a trial balance that is out of balance, first add the trial balance columns again. Next, check the trial balance figures against the ledger figures. Are all the numbers listed, are they accurate and are they in the right column? Next, recalculate the account balances in each ledger account. Finally, check that there is a balanced accounting entry in the accounts for each transaction.

Exercise 1, p. 115

*J. STROM*

*TRIAL BALANCE*

*DECEMBER 31, 20-*

ACCOUNTS	DEBIT				CREDIT				
<i>Bank</i>	3	0	0	0	-				
<i>A/R—Jones</i>	10	9	4	0	-				
<i>Supplies</i>	3	4	0	0	-				
<i>Office Equipment</i>	15	3	5	0	-				
<i>Automobile</i>	21	2	0	0	-				
<i>Land</i>	250	0	0	0	-				
<i>Building</i>	240	0	0	0	-				
<i>A/P—Smith</i>						5	1	6	0
<i>Bank Loan</i>						52	0	0	0
<i>Mortgage Payable</i>						278	5	0	0
<i>J. Strom, Capital</i>						208	2	3	0
	543	8	9	0	-	543	8	9	0

Exercise 2, p. 116

*C. HERNANDEZ*

*TRIAL BALANCE*

*JUNE 30, 20-*

ACCOUNTS	DEBIT				CREDIT				
<i>Bank</i>	5	0	0	0	-				
<i>A/R—P. Onno</i>	8	5	0	-					
<i>A/R—G. Slaught</i>	1	1	2	4	-				
<i>A/R—R. Tamo</i>	3	5	0	0	-				
<i>Supplies</i>	1	5	8	5	-				
<i>Equipment</i>	25	3	5	0	-				
<i>Automobiles</i>	22	8	0	0	-				
<i>A/P—J. Batt</i>						7	8	5	-
<i>A/P—W. Parker</i>						1	0	0	0
<i>A/P—H. White</i>						1	2	0	0
<i>Bank Loan</i>						25	0	0	0
<i>C. Hernandez, Capital</i>						32	2	2	4
	60	2	0	9	-	60	2	0	9

Exercise 3, p. 116

CECO CO.  
TRIAL BALANCE  
JUNE 30, 20-

ACCOUNTS	DEBIT	CREDIT
<i>Bank</i>	7 0 0 0 -	
<i>A/R—M. Legris</i>	3 5 0 0 -	
<i>A/R—W. Nishi</i>	8 5 0 -	
<i>Supplies</i>	1 9 2 5 -	
<i>Equipment</i>	7 2 9 6 -	
<i>Automobile</i>	22 5 0 0 -	
<i>A/P—Jondahl Co.</i>		1 3 5 0 -
<i>A/P—P. Swartz</i>		4 2 5 0 -
<i>Bank Loan</i>		10 0 0 0 -
<i>C. Oke, Capital</i>		27 4 7 1 -
	43 0 7 1 -	43 0 7 1 -

Exercise 4, p. 116

SEW WHAT ALTERATIONS  
TRIAL BALANCE  
OCTOBER 31, 20-

ACCOUNTS	DEBIT	CREDIT
<i>Bank</i>	3 9 7 5 -	
<i>A/R—K. Mak</i>	4 0 0 -	
<i>Supplies</i>	4 6 0 0 -	
<i>Equipment</i>	10 9 8 0 -	
<i>A/P—Parry Supply Co.</i>		1 4 8 0 -
<i>Bank Loan</i>		10 0 0 0 -
<i>B. Chan, Capital</i>		8 4 7 5 -
	19 9 5 5 -	19 9 5 5 -

Exercise 5, p. 117

*MARCI'S MASSAGE THERAPIES*

*TRIAL BALANCE*

*JULY 2, 20-*

ACCOUNTS	DEBIT					CREDIT				
<i>Bank</i>	4	3	1	4	-					
<i>A/R—L. Tyler</i>		6	0	0	-					
<i>Supplies</i>		6	5	5	-					
<i>Equipment</i>	7	3	0	7	-					
<i>Furniture</i>	2	0	0	0	-					
<i>A/P—Body-Works Supply</i>							3	4	5	-
<i>A/P—Live Well Equipment</i>							1	4	8	2
<i>Bank Loan</i>							9	0	0	0
<i>M. Vigiani, Capital</i>							4	0	4	9
	14	8	7	6	-	14	8	7	6	-