



The Accounting Equation

Account types

An accounting system is made up of five broad types of accounts:

Expenses	Accounts relating to money spent by the business for day-to-day running—for example wages, purchases, office supplies, utilities, etc.
Revenue	Accounts relating to money earned by the business—for example sales, interest.
Assets	Accounts where the business owns things—for example buildings, land, bank account, trade debtors, inventory.
Liabilities	Accounts where the business owes money—for example loan accounts, trade creditors.
Equity	The owner's investment in the business—for example capital, drawings.

The accounting equation

Asset and Expense accounts have **debit** balances whereas Liability, Revenue and Equity accounts have **credit** balances. When all accounting data has been recorded accurately, the total of the debit balances will equal the total of the credit balances. In other words:

$$\text{Assets} + \text{Expenses} = \text{Liabilities} + \text{Revenue} + \text{Equity}$$

This is known as the *accounting equation*. A summary of Molly Green's position is shown in the accounting equation below:

$$\begin{array}{rcccccccc} \text{Assets} & + & & \text{Expenses} & = & & \text{Liabilities} & + & & \text{Revenue} & + & & \text{Equity} \\ 25,000 & + & & 5,000 & = & & 5,000 & + & & 10,000 & + & & 15,000 \end{array}$$

Double-entry accounting

In order to keep the equation balanced, every transaction involves debiting one account and crediting another. This is known as *double-entry accounting*. Please note that the transactions shown in this section do not account for GST.



The Accounting Equation

Molly Green Landscaping Services

Molly Green operates a gardening business. Her services include garden maintenance and lawn mowing as well as landscaping. She has several clients who use her services on a weekly or fortnightly basis. Other people employ her on a one-off basis for her landscaping services, to look after their garden when they are out of town or to help with major projects.

The accounting equation transactions in this tutelet are based on Molly's business.



What are debits and credits?

A **debit** is an entry in the **left** column of a ledger account. A **credit** is an entry in the **right** column of a ledger account.

Cash received for landscaping services

When Molly Green receives a cash payment of \$500 for her landscaping services, the Cheque Account (an asset) is increased by *debiting* the account and the Landscaping Income account (revenue) is decreased by *crediting* the account. The table below shows the effect of this transaction on the accounting equation:

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
25,000	+	5,000	=	5,000	+	10,000	+	15,000
+ 500						+ 500		
<u>25,500</u>	+	<u>5,000</u>	=	<u>5,000</u>	+	<u>10,500</u>	+	<u>15,000</u>

Cash paid for mower expenses

When Molly writes a cheque for \$50 to pay for petrol for the lawn mower, the Cheque Account (an asset) is reduced by *crediting* the account and the Mower Expenses (an expense account) is increased by *debiting* the account. This transaction affects the accounting equation as follows:

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
25,500	+	5,000	=	5,000	+	10,500	+	15,000
- 50		+ 50						
<u>25,450</u>	+	<u>5,050</u>	=	<u>5,000</u>	+	<u>10,500</u>	+	<u>15,000</u>



The Accounting Equation

Garden supplies are bought on credit

When Molly buys \$300 of garden supplies from Rawhiti Garden Supplies on credit, the Garden Supplies expense account is increased (debited) and the Rawhiti Garden Supplies – Creditor account is also increased (credited). The effect of this transaction is shown below:

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
25,450	+	5,050	=	5,000	+	10,500	+	15,000
		+ 300		+ 300				
<u>25,450</u>	+	<u>5,350</u>	=	<u>5,300</u>	+	<u>10,500</u>	+	<u>15,000</u>

Molly Green invests cash

When Molly Green invests \$2,000 into the business as capital, the Cheque Account asset is increased by debiting the account and Capital equity account is increased by crediting the account. The effect of this transaction is shown below:

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
25,450	+	5,350	=	5,300	+	10,500	+	15,000
+ 2,000								+ 2,000
<u>27,450</u>	+	<u>5,350</u>	=	<u>5,300</u>	+	<u>10,500</u>	+	<u>17,000</u>

Debits and credits

Accounts will be debited or credited depending on the type of account and the nature of the transaction.

Account Type	Increase/Decrease	Debit/Credit
Asset	Increase	Debit
	Decrease	Credit
Expense	Increase	Debit
	Decrease	Credit
Liability	Increase	Credit
	Decrease	Debit
Revenue	Increase	Credit
	Decrease	Debit
Equity – Capital	Increase	Credit
	Decrease	Debit
Equity – Drawings	Increase	Debit
	Decrease	Credit



The Accounting Equation

Check your understanding

For each of the following transactions, state whether the account will be increased or decreased and debited or credited:

Transaction	Account	Increase/ Decrease	Debit/ Credit
1 Jack Black pays \$50 for lawn mowing	Cheque Account		
	Lawn Mowing Income		
2 Jon Tan pays \$30 for garden maintenance	Cheque Account		
	Garden Maintenance Income		
3 Molly buys weed killer (\$90) on credit from Rawhiti Garden Supplies	Garden Supplies		
	Rawhiti Garden Supplies – Creditor		
4 Sam Gray pays his account - \$90	Cheque Account		
	Sam Gray – Debtor		
5 Molly uses her MasterCard to pay \$60 for petrol for the truck	Truck Expenses		
	MasterCard		
6 Molly pays last month's MasterCard bill - \$250 from the business cheque account	Cheque Account		
	MasterCard Account		
7 Molly pays for stationery with her MasterCard - \$125	MasterCard		
	Stationery		
8 Molly writes a cheque to pay her Rawhiti Garden Supplies bill - \$750	Rawhiti Garden Supplies – Creditor		
	Cheque Account		
9 Molly pays cash for a new rotary hoe - \$3,500	Tools and Machinery		
	Cheque Account		
10 Molly completes a landscaping job for Jack Black. Jack will pay the full amount of \$2,500 next month	Jack Black – Debtor		
	Landscaping Income		

Check your work on page 7.



The Accounting Equation

Practise it!

Show the effect of the transactions below on the accounting equation.

Write the totals from the previous transaction in the first line of the transaction that you are working on. The first transaction has the starting totals supplied.

- 1 Jack Black pays \$50 for lawn mowing

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
27,450	+	5,350	=	5,300	+	10,500	+	17,000
_____	+	_____	=	_____	+	_____	+	_____
=====	+	=====	=	=====	+	=====	+	=====

- 2 Jon Tan pays \$30 for garden maintenance

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
_____	+	_____	=	_____	+	_____	+	_____
_____	+	_____	=	_____	+	_____	+	_____
=====	+	=====	=	=====	+	=====	+	=====

- 3 Molly buys weed killer (\$90) on credit from Rawhiti Garden Supplies

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
_____	+	_____	=	_____	+	_____	+	_____
_____	+	_____	=	_____	+	_____	+	_____
=====	+	=====	=	=====	+	=====	+	=====

- 4 Sam Gray pays his account - \$90

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
_____	+	_____	=	_____	+	_____	+	_____
_____	+	_____	=	_____	+	_____	+	_____
=====	+	=====	=	=====	+	=====	+	=====

- 5 Molly uses her MasterCard to pay \$60 for petrol for the truck

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
_____	+	_____	=	_____	+	_____	+	_____
_____	+	_____	=	_____	+	_____	+	_____
=====	+	=====	=	=====	+	=====	+	=====



The Accounting Equation

6 Molly pays last month's MasterCard bill - \$250 from the business cheque account

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
_____		_____		_____		_____		_____
_____	+	_____	=	_____	+	_____	+	_____
=====		=====		=====		=====		=====

7 Molly pays for stationery with her MasterCard - \$125

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
_____		_____		_____		_____		_____
_____	+	_____	=	_____	+	_____	+	_____
=====		=====		=====		=====		=====

8 Molly writes a cheque to pay her Rawhiti Garden Supplies bill - \$750

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
_____		_____		_____		_____		_____
_____	+	_____	=	_____	+	_____	+	_____
=====		=====		=====		=====		=====

9 Molly pays cash for a new rotary hoe - \$3,500

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
_____		_____		_____		_____		_____
_____		_____		_____		_____		_____
_____	+	_____	=	_____	+	_____	+	_____
=====		=====		=====		=====		=====

10 Molly completes a landscaping job for Jack Black. Jack will pay the full amount of \$2,500 next month

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
_____		_____		_____		_____		_____
_____		_____		_____		_____		_____
_____	+	_____	=	_____	+	_____	+	_____
=====		=====		=====		=====		=====

Check your work on page 8.



The Accounting Equation

Answers and solutions

Check your understanding (p 4)

Transaction	Account	Increase/ Decrease	Debit/ Credit
1 Jack Black pays \$50 for lawn mowing	Cheque Account	Increase	Debit
	Lawn Mowing Income	Increase	Credit
2 Jon Tan pays \$30 for garden maintenance	Cheque Account	Increase	Debit
	Garden Maintenance Income	Increase	Credit
3 Molly buys weed killer (\$90) on credit from Rawhiti Garden Supplies	Garden Supplies	Increase	Debit
	Rawhiti Garden Supplies – Creditor	Increase	Credit
4 Sam Gray pays his account - \$90	Cheque Account	Increase	Debit
	Sam Gray – Debtor	Decrease	Credit
5 Molly uses her MasterCard to pay for petrol for the truck	Truck Expenses	Increase	Debit
	MasterCard	Increase	Credit
6 Molly pays last month's MasterCard bill - \$250) from the business cheque account	Cheque Account	Decrease	Credit
	MasterCard Account	Decrease	Debit
7 Molly pays for stationery with her MasterCard - \$125	MasterCard	Increase	Credit
	Stationery	Increase	Debit
8 Molly writes a cheque to pay her Rawhiti Garden Supplies bill - \$750	Rawhiti Garden Supplies – Creditor	Decrease	Debit
	Cheque Account	Decrease	Credit
9 Molly pays cash for a new rotary hoe - \$3,500	Tools and Machinery	Increase	Debit
	Cheque Account	Decrease	Credit
10 Molly completes a landscaping job for Jack Black. Jack will pay the full amount of \$2,500 next month.	Jack Black – Debtor	Increase	Credit
	Landscaping Income	Increase	Debit





The Accounting Equation

Practise it! (p 5)

1 Jack Black pays \$50 cash for lawn mowing

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
27,450	+	5,350	=	5,300	+	10,500	+	17,000
+ 50						+ 50		
27,500	+	5,350	=	5,300	+	10,550	+	17,000

2 Jon Tan pays \$30 for garden maintenance

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
27,500	+	5,350	=	5,300	+	10,550	+	17,000
+ 30						+ 30		
27,530	+	5,350	=	5,300	+	10,580	+	17,000

3 Molly buys weed killer (\$90) on credit from Rawhiti Garden Supplies

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
27,530	+	5,350	=	5,300	+	10,580	+	17,000
		+ 90		+ 90				
27,530	+	5,440	=	5,390	+	10,580	+	17,000

4 Sam Gray pays his account - \$90

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
27,530	+	5,440	=	5,390	+	10,580	+	17,000
+ 90		<i>Cheque Account</i>						
- 90		<i>Sam Gray - Debtor</i>						
27,530	+	5,440	=	5,390	+	10,580	+	17,000

5 Molly uses her MasterCard to pay \$60 for petrol for the truck

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
27,530	+	5,440	=	5,390	+	10,580	+	17,000
		+ 60		+ 60				
27,530	+	5,500	=	5,450	+	10,580	+	17,000



The Accounting Equation

6 Molly pays last month's MasterCard bill - \$250 from the business cheque account

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
27,530	+	5,500	=	5,450	+	10,580	+	17,000
- 250				- 250				
<u>27,280</u>	+	<u>5,500</u>	=	<u>5,200</u>	+	<u>10,580</u>	+	<u>17,000</u>

7 Molly pays for stationery with her MasterCard - \$125

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
27,280	+	5,500	=	5,200	+	10,580	+	17,000
		+ 125		+ 125				
<u>27,280</u>	+	<u>5,625</u>	=	<u>5,325</u>	+	<u>10,580</u>	+	<u>17,000</u>

8 Molly writes a cheque to pay her Rawhiti Garden Supplies bill - \$750

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
27,280	+	5,625	=	5,325	+	10,580	+	17,000
- 750				- 750				
<u>26,530</u>	+	<u>5,625</u>	=	<u>4,575</u>	+	<u>10,580</u>	+	<u>17,000</u>

9 Molly pays cash for a new rotary hoe - \$3,500

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
26,530	+	5,625	=	4,575	+	10,580	+	17,000
- 3,500		<i>Cheque Account</i>						
+ 3,500		<i>Tools and Machinery</i>						
<u>26,530</u>	+	<u>5,625</u>	=	<u>4,575</u>	+	<u>10,580</u>	+	<u>17,000</u>

10 Molly completes a landscaping job for Jack Black. Jack will pay the full amount of \$2,500 next month

Assets	+	Expenses	=	Liabilities	+	Revenue	+	Equity
26,530	+	5,625	=	4,575	+	10,580	+	17,000
+ 2,500						+2,500		
<u>29,030</u>	+	<u>5,625</u>	=	<u>4,575</u>	+	<u>13,080</u>	+	<u>17,000</u>