

Visual Learning Maps

Introductory Financial Accounting



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VIRTUAL TEXT BOOK

Foundation Equation – 1 of 4 **A = L + E**

Assets = Liabilities + Equity

Always, Always, Always.

Learning Accounting is like knitting a sweater with circular stitches.

Every stitch is linked to every other stitch linearly. The Foundation Equation is **directly triple stitched** to the Bookkeeping Rules. The Bookkeeping Rules *keep* entries in balance thus creating the balance sheet which shows that Assets = Liabilities + Equity; which proves the Foundation Equation; circles of logic.

This F Equation is true for every single bookkeeping entry ever made by every business that ever existed since 1494 when an Italian Franciscan monk named Luca Pacioli invented bookkeeping. For further reference, see his book titled "Everything about Arithmetic, Geometry, and Proportions."

Bookkeeping Rules, Assets and liabilities are detailed under their own headings in the Class Notes. For these notes - think of **assets** as things you own that you need in your business that will last a few years; **liabilities** are debts – you owe.

EQUITY is a little more complicated. Equity is what you have in the business. If you sold the assets and got what they are valued at in your books then paid all your debts; the amount left would be your equity (market forces would of course change what is left), but because the business isn't liquidating, equity is the difference between assets and liabilities per the books.

Equity is made up of what the owner puts into the business less what the owner takes out of the business; then plus or minus the difference between revenue and expense for each accounting period – cumulative. So, if the owner starts a business by depositing \$50,000 in the bank and after the first year of business revenue was \$30,000, expense was \$22,000; and the owner took \$4,000 out to pay for personal things – what would be the balance in the equity account at the end of the year? (Answer at bottom of page 2)

Foundation Equation – 2 of 4

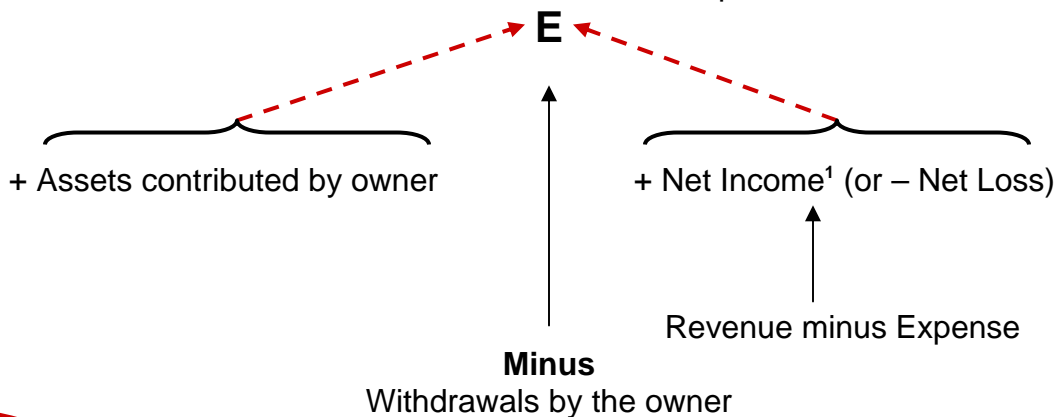
A = L + E ...continued

Just as Assets are made up of the total of accounts (e.g. cash, accounts receivable, building etc.) and Liabilities are made up of the total of accounts (e.g. accounts payable, bank loan etc.); Equity is made up of **the sum** of two accounts: Capital and Withdrawals.

There is only one type of transaction that occurs in the **Withdrawals** account. (also called the Drawings account). Whenever funds go out of the business for personal use of the owner, or on behalf of personal items of the owner; the Withdrawals account is affected – it increases. Funds can be paid directly to the owner for personal use or the business could issue checks to pay for things for the owner that has nothing to do with the business, such as rent, utilities, spousal gifts, progeny endowments or bank loan payments - that relate solely to the owner, **not the business**.

The **Capital** account is affected by three economic events. First, whenever the owner contributes assets to the business. This “*injection of capital*” could be any asset, but more often than not includes cash. The contribution can also be equipment, a building, vehicles or any asset. These increase the Capital account. Second, Withdrawals or Drawings decrease the Capital account because resources are being taken out of the business.

Third, an event that affects the Capital account happens at the end of every accounting period. This could be every month, quarter or year depending on when the business measures and reports an accounting period. Whatever the accounting period is – at the end of it the income statement measures Net Income or Net Loss¹ and it is all transferred to the Capital Account.



Answer for
page 1: \$54,000

¹ When revenue is higher than expense, the net of the two numbers is called “Net income.” If expense is higher than revenue the net of the two numbers is called “Net Loss.”

Foundation Equation – 3 of 4

A = L + E ...continued

The **Capital** account in a new business always has an opening balance of zero. At the end of the accounting period, after contributions and Net Income and Withdrawals are recorded – there is a closing balance. This “Closing Capital” is the figure that appears on the balance sheet that is called “Capital.” Another way of saying this is: the Closing Capital figure is **always** the Capital figure on the balance sheet.

As previously mentioned, the F Equation is inextricably welded to the debit and credit rules in Bookkeeping (see Class Notes). Total Debits for each transaction always equals total credits. This is called the double Entry system. The sum of all balances in the accounts always equals zero.

Beware. There is an assumption trap waiting for you in the F equation and the debit / credit double entry rules. Somewhere in the ether between Arithmetic and Philosophy we have been led to the belief that for every plus there must be a minus. **This is not true in Bookkeeping.** The rules are not about pluses and minuses cancelling out. The rule is for every debit there is a credit (and vice versa) that increases or decreases the accounts of the A, L & E equation.

There can be any combination - of increase / decrease. Like this:

- *Cash is received from a customer for services performed* - Cash, the **A**, increases; and Revenue, the **E**, increases
- *Cash is received from a customer for an invoice sent to the customer last month* - Cash, the **A**, increases; and Accounts Receivable, **A**, decreases
- *A cheque is issued by the business for a loan payment* - Cash, the **A**, decreases, and Liabilities, the **L**, decreases
- *A cheque is issued by the business to buy a delivery truck* - Cash, the **A**, decreases; and Trucks, the **A**, increases
- *The business gets a bank loan* Bank - loan, the **L** increases, and Cash, the **A**, increases

Foundation Equation – 4 of 4

A = L + E ...continued

Here are some examples of transactions for Fred's business and how they affect the F Equation:

A	=	L	+	E
Fred starts a business, opens a business bank account and deposits \$5,000				
Cash \$5,000				Capital \$5,000
a) A \$3,000 bank loan is deposited into the business account				
Cash \$3,000		Loan \$3,000		
b) Fred receives \$1,000 for services performed for a customer				
Cash \$1,000				Revenue \$1,000
c) Fred pays for insurance for three years; the amount is \$1,200				
Cash (\$1,200)				
Prepaid \$1,200				
d) Fred pays the rent for the month \$900				
Cash (\$ 900)				Expense (\$ 900)
e) Fred buys a delivery van for \$16,000; he pays \$ 6,000 cash and borrows the rest from the bank				
Truck \$16,000		Truck loan \$10,000		
Cash (\$6,000)				

Your next learning step is the Bookkeeping Rules – Debits and Credits. Remember that Debits can be pluses or minuses and credits can be pluses or minuses, **depending on which side of the equation they enter!**