

## Accounting Equations



Your chef, namely me, is about to divulge a secret recipe. I know you've been waiting to get the Colonel's secret recipe for Kentucky fried chicken. Sorry to disappoint you, but this recipe is actually a simple equation and lays the foundation on which double entry bookkeeping is built.

This equation is called the **ACCOUNTING EQUATION** and is also referred to as the **Balance Sheet Equation**.

The equation may be expressed in three forms:

1. **Abbreviated or Simple Version:** Property = Property Rights
2. **Expanded Version:** Assets = Liabilities + Owner's Equity (Capital)

**3. Fully Expanded Version:**  $\text{Assets} = \text{Liabilities} + \text{Beginning Owner's Equity (Capital)} + \text{Additional Owner Investments} + \text{Revenues} - \text{Expenses} - \text{Draws}$

### Double Entry Bookkeeping System

**Double Entry** is a type of accounting/bookkeeping system that requires every transaction to be recorded in at least two places (accounts) using debits and credits (discussed later) to represent increases and decreases.

Well this equation is what double entry is all about. We make two entries for every business transaction. These entries represent increases or decreases in property (assets) and/or property rights (liabilities and owner's equity).

In other words the double entry system based on the Accounting Equation allows us to track:

#### (1) What We Got and What Went (Property)

Assets The "Good Stuff"

and

#### (2) From Whom and To Whom (Property Rights)

Claims To The Assets ("Good Stuff")

Who has a right or claim to the business's property ? Claims to the property (assets) arise from two sources:

**Creditors** of the business (liabilities) Those from whom the business borrows from or buys from on credit are called creditors. The creditors have a claim to the property (assets) of the business until they are paid. These creditor claims are called liabilities. Two common types of creditors are a business's suppliers and bankers.

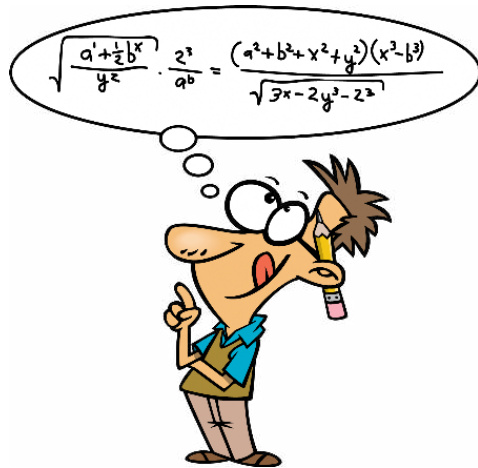
**Owner(s)** of the business (owner's equity) Yes the owner(s) also has a claim to the property (assets) for property (assets) invested into their business and any increases or decreases resulting from operating the business.

Revenues and additional owner investments increase owner's equity while expenses and draws decrease owner's equity.

Another way to think about these increases and decreases to equity is to relate it to your personal financial situation. Your earnings (revenue) increase your personal wealth (equity) and your living expenses and draws (money you give your wife) decrease your personal wealth (equity). Sorry gals that I picked on you for my example of draws.

Owner's Equity (Capital) summarizes all the increases and decreases resulting from revenues, expenses, investments, and draws and puts the balance in capital. This summarizing activity is called Closing the Books .

It should now be apparent that the assets (property) are subject to two kinds of claims (property rights), those arising from the rights (claims) of creditors (liabilities) and those arising from the rights (claims) of the owner (owner's equity).



### Developing Our Different Versions Of the Accounting Equation

and No, you don't need an extensive knowledge of mathematics to understand !

Since

(1) Property = Assets and

(2) Property Rights (Claims to the Property) = Liabilities + Owner's Equity (Capital),

the simple or abbreviated accounting equation **Property = Property Rights** expanded or restated now becomes

**Assets = Liabilities + Owner's Equity (Capital).**

We're now going to concentrate on the **Owner's Equity (Capital)** section of the equation. If you recall, the balance of Owner's Equity is affected by Revenue, Expense, Investment, and Draws.

Businesses normally operate with the objective of making a profit. Profit is determined by subtracting the expenses from revenue (income). Any profits made by a business go to the owner. Therefore, the effects of revenue (income) and expenses are shown under the Owner's Equity section of the accounting equation.

## Accounting Equation

An increase in revenues represents an increase in profit and therefore an increase in Owner's Equity. An increase in expenses represents a decrease in profits and therefore a decrease in Owner's Equity.

Draws" and Investments also affect the Owner's Equity section of the accounting equation. Draws decrease Owner's Equity and additional investments increase Owner's Equity.

Summary of The Effects on Owner's Equity:

**Owner Investments increase** Owner's Equity

**Revenues increase** Owner's Equity

**Expenses decrease** Owner's Equity

**Owner's Draws decrease** Owner's Equity

Using the above information we can present this information in the following equation:

**Current Owner's Equity (Capital)** = Beginning Owner's Equity (Capital) + Owner's Investments + Revenues – Expenses -Draws

This new **Owner's Equity Equation** illustrates the relationships and effects investments, revenue, expense, and draws have on **Owner's Equity (Capital)** .

Let's take this one final step to arrive at our **Fully Expanded Accounting Equation** which includes all the components that make up and affect Owner's Equity (Capital).

## Accounting Equation

Our **Expanded Accounting Equation**,  $\text{Assets} = \text{Liabilities} + \text{Owner's Equity (Capital)}$   
expanded or restated now becomes our **Fully Expanded Version**

**Assets = Liabilities + Beginning Owner's Equity (Capital) + Additional Owner Investments +  
Revenues – Expenses – Draws.**

While all three of the equations illustrate the relationship of property and property rights, the  
accounting equation **most often used and referred to** is the **Expanded Equation or Basic  
Equation:**

**Assets = Liabilities + Owner's Equity**

**Observation:** In using the expanded accounting equation, if two of the three components  
are known, the third can easily be calculated by using some simple Algebra to rearrange  
the equation. Don't worry, you're not going to get an Algebra Lesson.

The accounting equation can be expressed in the following different ways:

**Asset emphasis:**

$\text{Assets} = \text{Liabilities} + \text{Owner's Equity}$

**Equity emphasis:**

$\text{Owner's Equity} = \text{Assets} - \text{Liabilities}$

**Liability emphasis:**

$\text{Liabilities} = \text{Assets} - \text{Owner's Equity}$

So, You Can:

### Calculate Assets

if Liabilities and Owner's Equity are known

Assets = Liabilities + Owner's Equity (Normal Formula)

### Calculate Owner's Equity

if Assets and Liabilities are known

Owner's Equity = Assets - Liabilities

### Calculate Liabilities

if Assets and Owner's Equity are known

Liabilities = Assets - Owner's Equity

Let's see if I fibbed.

If Liabilities are 70,000 and Owner's Equity is 30,000 what is the value of the Assets ?

Assets = Liabilities + Owner's Equity

Assets = 70,000 + 30,000

## Accounting Equation

Assets= 100,000

If Assets are 100,000 and Liabilities are 70,000 what is the value of our Owner's Equity ?

Owner's Equity = Assets – Liabilities

Owner's Equity = 100,000 – 70,000

Owner's Equity = 30,000

And lastly, if Assets are 100,000 and Owner's Equity is 30,000 what is the value of our

Liabilities ?.

Liabilities = Assets – Owner's Equity

Liabilities = 100,000 – 30,000

Liabilities = 70,000