

The Basic Accounting Equation

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

The Three Elements of the Accounting Equation

1. Assets (A) - Anything owned by a business that has economic value and will help the business earn revenue.
2. Liabilities (L) - Creditor claims on total assets resulting from past transactions; obligations of the entity to third parties.
3. Equity (E) - Ownership claims on total assets. * Name will vary depending upon the type of business, i.e. In a corporation the name is Stockholder's Equity; a sole proprietor uses the name Owner's Equity.

When any two elements of the equation are known, the third can always be calculated.

For Example:

If Assets = \$50,000 and Liabilities = \$18,500, what is the amount of Equity?

Using the Accounting Equation, plug in the known amounts:

$$A=L+E \quad \$50,000 = \$18,500 + E$$

Subtract the Liabilities from both sides:

$$A-L=L-L+E \quad \$50,000 - \$18,500 = \$18,500 - \$18,500 + E$$

Combine amounts:

$$A-L=E \quad \$31,500 = E$$

The equation **MUST STAY IN BALANCE AT ALL TIMES**

A change to any one element requires a corresponding change to at least one other element. Therefore, the purchase of an asset (an increase in asset) requires either a decrease in another asset (cash paid) or an increase in a liability (accounts payable) or an increase in equity (owner put asset into service in business).

For example, a corporation with Assets of \$750,000, Liabilities of \$570,000, and Stockholders equity of \$180,000 purchases equipment at a cost of \$120,000 and borrows the full amount to pay for the purchase. The assets (equipment) will increase by \$120,000 and the liabilities (loan) increase by \$120,000.

Equation before purchase:

$$\begin{array}{rcccc} \$750,000 & = & \$570,000 & + & \$180,000 \\ A & = & L & + & E \end{array}$$

The business purchases equipment for \$120,000 obtaining a loan for the full amount:

$$\begin{array}{rcccc} \$870,000 & = & \$690,000 & + & \$180,000 \\ A & = & L & + & E \end{array}$$

Assets have increased by \$120,000 and the liabilities have increased by \$120,000, so the equation has stayed in balance.

Equity vs. Liabilities

To illustrate how liabilities and equity work to stay in balance, consider the purchase of a home.

If the cost of the house is \$200,000 and the buyer provides a down payment of \$40,000 and obtains a mortgage for \$160,000, the elements would be entered in the equation as shown below.

$$\begin{array}{rcccc} \text{House} & = & \text{Mortgage} & + & \text{Down Payment} \\ \$200,000 & = & \$160,000 & + & \$40,000 \\ A & = & L & + & E \end{array}$$

After the first mortgage payment of \$1,000 principal, the equation would change as shown. **

$$\begin{array}{rcccc} \$200,000 & = & \$159,000 & + & \$41,000 \\ A & = & L & + & E \end{array}$$

Notice that the equation stays in balance; the asset has not changed, but equity increases as the liability decreases.

**Note that this example does not consider the interest that is typically associated with this type of scenario.

PRACTICE:

SECTION I

Calculate the missing amounts.

	Assets	=	Liabilities	+	Equity
1.	410,000.00	=	200,000.00	+	
2.		=	5,400.00	+	7,700.00
3.	24,255.00	=		+	11,150.00
4.	1,150,000.00	=	545,700.00	+	
5.	750,500.00	=		+	350,500.00
6.		=	880,500.00	+	305,250.00

SECTION II

The following are attempts to restate the Basic Accounting Equation. Indicate which attempts are correct and which are incorrect.

1.	Assets	=	Liabilities	+	Equity	Correct / Incorrect
2.	Liabilities	+	Assets	=	Equity	Correct / Incorrect
3.	Assets	-	Liabilities	=	Equity	Correct / Incorrect
4.	Assets	=	Equity	+	Liabilities	Correct / Incorrect
5.	Liabilities	+	Equity	=	Assets	Correct / Incorrect
6.	Equity	-	Assets	=	Liabilities	Correct / Incorrect
7.	Assets	=	Liabilities	-	Equity	Correct / Incorrect

SECTION III

Answer each of the following:

The assets of Some Company are \$250,000 and the total equity is \$95,000. What is the amount of total liabilities?

The liabilities of Some Company are \$45,000 and the total equity is \$21,000. What is the amount of Some Company's total assets?

The total assets of Some Company are \$1,345,000 and its liabilities are equal to one half the assets. What is the amount of total equity?

