

# The Accounting Equation: How Businesses Organize Money

The accounting equation is the basis of how companies keep track of money (double-entry accounting). Used to ensure company assets equal liabilities and equity, the accounting equation helps keep financial accounts organized.

Created more than 500 years ago, the basic accounting equation continues to serve as the foundation of accounting. The accounting equation, was built on the idea that for everything a business has control of and owns (called an asset) has either been paid for and is fully owned (equity) or money was borrowed against it and there is money to pay back (liability).

The accounting equation has 3 parts: **Assets, Liabilities, and Owner's Equity.** Let's look at each in more detail:

- **Assets:** An asset is anything of value a business currently owns. Cash, cash equivalents, inventory, accounts receivable (money customers owe), land, vehicles, buildings, computers, and equipment are all considered assets.
- **Liabilities:** Liabilities are debts a business owes. Accounts payable (bills), notes payable, mortgages, and bank loans are all types of liabilities.
- **Equity:** Equity can be called many things such as owner's equity, shareholder's equity, or stockholder's equity. Owners' equity represents the funds, if any, that are available to the owners and shareholders. Retained earnings, which are earnings left over after owners have received their share of profits, is also equity section of the balance sheet.

As long as accounting transactions are recorded properly, the accounting equation will always be balanced as shown below:

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

The accounting equation doesn't consider the type of assets and liabilities. It simply takes the total of each category to complete the equation. Using algebra, we can rearrange the equation and solve for any variable given the other 2. Let's use:

- **A for assets**, things we have of value.
- **L for liabilities** (what we owe on assets)
- **OE for what we own** (equity means ownership)

**Given any 2, we can solve for the third:**

$$\begin{aligned} A &= L + OE \\ L &= A - OE \\ OE &= A - L \end{aligned}$$

## Examples

**Solve for Assets.** If a business owes/has liabilities of \$5,000 and the owner owns/has owners' equity of 2,000, we see that:

$$\begin{aligned} A &= L + OE \\ A &= 5,000 + 2,000 \\ A &= 7,000. \text{ This business has} \\ &\quad \text{\$7,000 in assets.} \end{aligned}$$

**Solve for Liabilities.** If a business owns assets of \$3,000 and owners' equity of 1,000, we see that

$$\begin{aligned} L &= A - OE \\ L &= 3,000 - 1,000 \\ L &= 2,000. \text{ This business owes or} \\ &\quad \text{has liabilities of} \\ &\quad \text{\$2,000} \end{aligned}$$

**Solve for Owners Equity.** If a business owns assets of \$5,000 and owes/has liabilities of 4,000, we see that that

$$\begin{aligned} OE &= A - L \\ OE &= 5,000 - 4,000 \\ OE &= 1,000. \text{ This business owes} \\ &\quad \text{or has liabilities of} \\ &\quad \text{\$2,000} \end{aligned}$$

## Now it is your turn!

Name: \_\_\_\_\_

Begin each of the exercises below like students learn to solve story or word problems in math class: Identify what you have. You will have 2 out of three variables from the **Accounting Equation: Assets = Liabilities + Owners Equity**.

Choose one of the three ways we use the equation which puts what you are solving for on the left & the 2 values you know/are given on the right. The first one is done for you:

1. **Assets = \$20,000, Owners Equity = 6,000.** What are the liabilities?

$$L = 20,000 - 6,000.$$

$$\text{Liabilities} = \$14,000$$

2. **Assets = \$75,000, Liabilities = 25,000.** What is the owners' equity?

4. **Assets = \$120,000, Owners Equity = 60,000.** What are the liabilities?

5. **Assets = \$650,000, Liabilities = 550,000.** What is the owners' equity?

3. **Liabilities = \$18,000, Owners' Equity = 2,000.** What is the value of assets?

6. **Liabilities = 1,000,000, Owner's Equity = 750,000.** What are the assets?