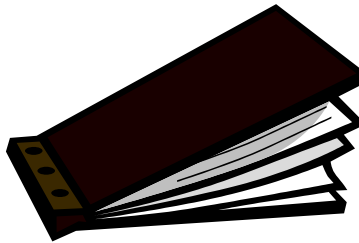


Accounting: Debits & Credits

A Student Academic Learning Services Guide



Debits & Credits: before we begin

There are a few things every student who is starting to study financial accounting should know about the words “debit” and “credit”. The most important is that *the everyday meaning and use of these words is different from when they are used in accounting* and will cause confusion (and therefore cause students to make mistakes).

Things to remember

Debits and credits (in financial accounting) are...

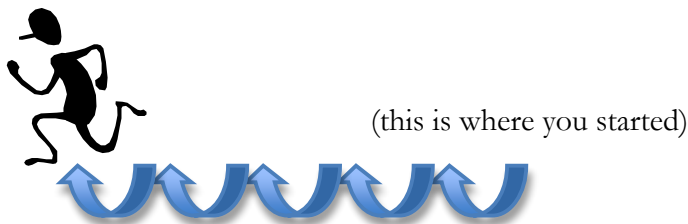
- types of change
- neither “good” nor “bad”
- neither “positive” nor “negative”
- ways of increasing or decreasing the value of an account (so that the balance is always a positive number)

When first learning how “debits” and “credits” work together, think of them like they were “left” and “right”.

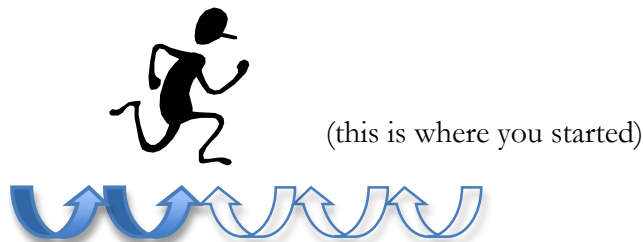


Start here

If you take 5 steps to the left...



and then 2 steps to the right...



you are 3 steps to the left of where you started (you would never say you were -3 steps to the right).

T-charts

T-charts are a quick and easy way to keep track of debits and credits. All debits are recorded on the left side of the chart, and all credits are recorded on the right. A typical t-chart may look like this...

(name of account)	
(debit side)	(credit side)

Let's say we have an account (the name doesn't matter just yet) that has two debits (\$500 and \$2000) and three credits (\$400, \$150, and \$50) applied to it. Recorded in a t-chart, it might look like this...

account	
\$500	\$400
\$2000	\$150
	\$50

That's wonderful and all, but what is the result of all those debits and credits?

Going back to the "things to remember", we know that debits and credits work just like left and right. To find out the result we start by making subtotals of the two sides.

account			
500	\$500	\$400	400
<u>+2000</u>	\$2000	\$150	150
=2500		\$50	<u>+50</u>
			=600

So we have \$2500 on the debit side, and \$600 on the credit side. We then find the difference (subtracting the numbers) to determine the result. This is the balance of the account. *Always* start with the larger number and subtract the smaller number ($\$2500 - \$600 = \$1900$). Then take the result and put it at the bottom of the chart, on the side that had the largest subtotal in the beginning (debit in this example). The finished t-chart would look like this...

account	
\$500	\$400
\$2000	\$150
	\$50
Bal. \$1900	

How they change the value of an account

The effect of a debit (or credit) on an account *depends on where the account sits in the accounting equation.*

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

Three “rules” help explain what happens and why:

1. Each debit must have a matching credit
 - When recording a transaction, the double entry system of accounting will reference (a minimum of) two accounts. One will be debited, the other credited.
 - The reason there are two accounts referenced is that the double entry system of accounting records what the company has AND why they have it.
2. The accounting equation must always balance
 - That’s the way math works
 - If there is change on one side of the equal sign, there must be equal change (in the same direction) on the other side
3. Debits increase asset accounts
 - What?... why?
 - It is an historical standard (just like why 1 kilogram is 1 kilogram)
 - When the double entry system of accounting was formalized, bookkeepers needed to agree to a standard so that information was accurate, comparable, and reliable
 - If debits increase asset accounts, than credits *must decrease* asset accounts

Before we do an example, we need to expand the accounting equation. We do this because Equity is actually made up of four different account types that change the equation in different ways. Instead of Equity, we're going to use Capital, Withdrawals, Revenues, and Expenses. The accounting equation now looks like this:

$$\text{Assets} = \text{Liabilities} + \text{Capital} - \text{Withdrawals} + \text{Revenues} - \text{Expenses}$$

Notice that Withdrawals and Expenses have negative signs in front of them. That means that whatever the balances in those accounts are, those balances are *subtracted* from the equation. When those accounts increase in value, they actually cause the right side of the equation to *decrease*.



Arrows will be used to show the effect of debits and credits on the different types of accounts (up arrow for increase, down arrow for decrease). Remember that debits are on the left side of the t-charts, and credits on the right.

Given what we know so far (from the “rules”), the accounting equation now looks like this:

Assets	=	Liabilities	+	Capital	-	Withdrawals	+	Revenues	-	Expenses

But what about the other account types? What arrows go where?

This handout will show a series of examples to show the effect debits and credits have on the other account types.

In summary, the equation will look like this:

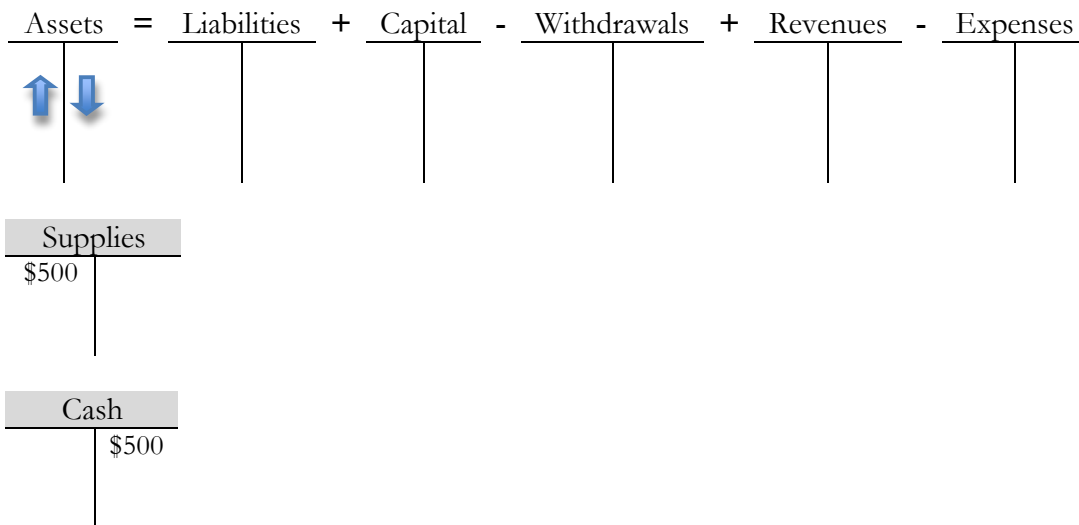
Assets	=	Liabilities	+	Capital	-	Withdrawals	+	Revenues	-	Expenses

Example 1: Assets

The company purchases \$500 of supplies using cash.

Analysis

- Both the supplies purchased and the cash used are assets of the company (things that are owned), so this transaction takes place *only* on the left side of the accounting equation
- The value of the supplies is increasing, so that account is debited (rule 3).
- The value of the cash is decreasing, so that account is credited (rule 3 & 1)
- Because one asset account is going up and another asset account is going down by the same amount, the two events cancel each other out, and the equation stays balanced (rule 2)
- Using t-charts the transaction looks like this...

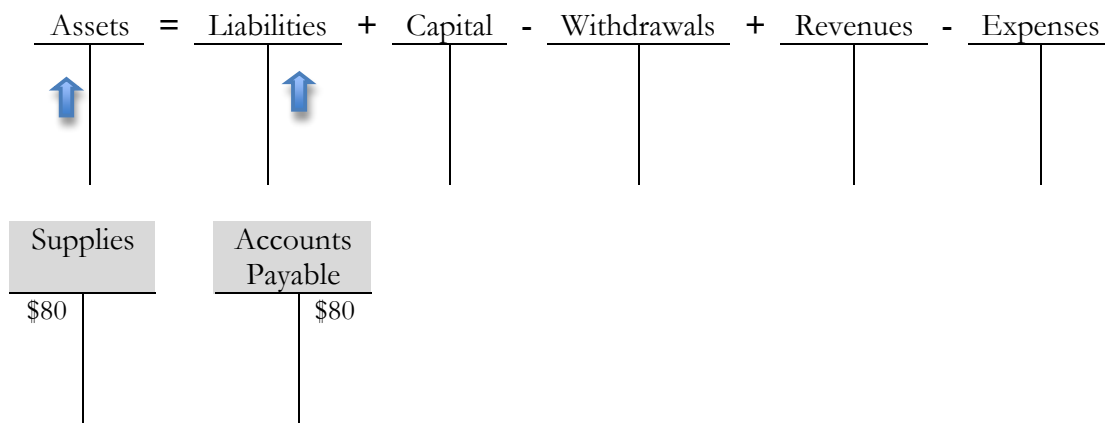


Example 2: Liabilities

The company purchases \$80 of supplies and agrees to pay within 30 days.

Analysis

- The supplies purchased are assets of the company (things that are *owned*) and are increasing, so that account is debited (rule 3)
- Because the company has not paid the bill yet, they *owe* the value of the supplies. When the company owes something, that debt is a liability. A Liabilities account called Accounts Payable is used to record what the company owes
- The Supplies account was debited, so the transaction needs a credit (rule 1). The credit is applied to the Accounts Payable account
- Rule 2 states that the equation must always be in balance. We know that the left side of the equation increased because of the debit. The only way for the equation to balance is for the right side to *also* increase. Therefore, the credit to the Liabilities account (Accounts Payable) *must* have increased the value of the account
- From this we now know that credits *increase* Liabilities accounts (and therefore debits *decrease* Liabilities accounts)
- Using t-charts the transaction looks like this...

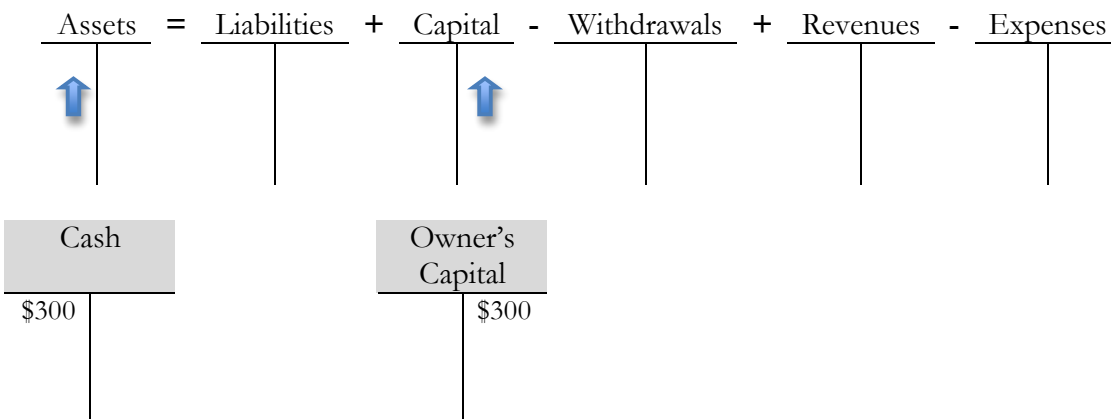


Example 3: Capital

The owner of a company deposits \$300 of his/her personal money into the company bank account.

Analysis

- The cash deposited becomes an asset of the company, so we know that the Cash account is debited because it is increasing (rule 3)
- The owner *gave* something to the company. Whenever the owner of the company *gives* something to the company, the value is recorded in the Owner's Capital account
- The Cash account was debited, so the transaction needs a credit (rule 1). The credit is applied to the Owner's Capital account
- Rule 2 states that the equation must always be in balance. We know that the left side of the equation increased because of the debit. The only way for the equation to balance is for the right side to *also* increase
- Note that there is a "+" sign in front of the Capital account type. Whatever the balance of the account is, it is added to the right side of the equation, causing it to increase
- Therefore, the credit to the Owner's Capital account *must* have increased the value of the account
- Using t-charts the transaction looks like this...

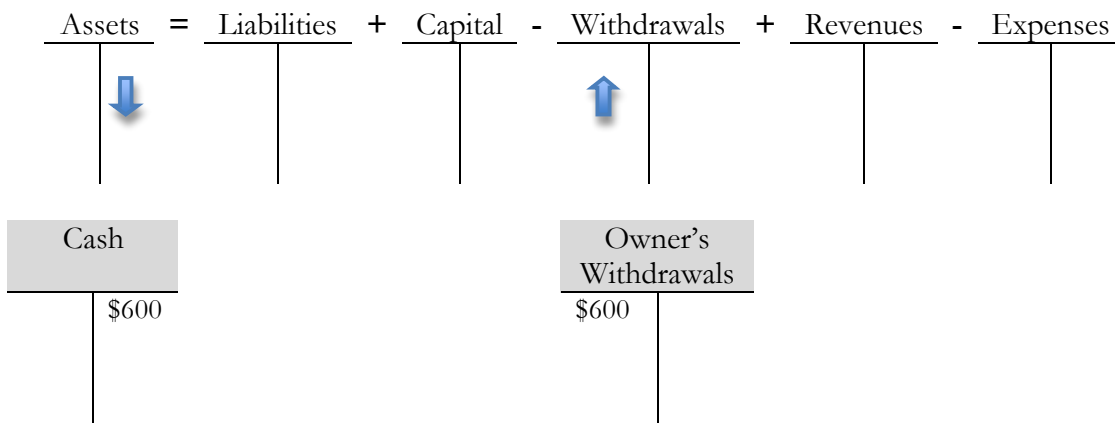


Example 4: Withdrawals

The owner of a company withdraws \$600 from the company Cash account for personal use.

Analysis

- The cash withdrawn is an asset of the company, so we know that the Cash account is credited because it is decreasing (rule 3)
- The owner is *taking* something to the company for personal use. Whenever the owner of the company *takes* something to the company, the value is recorded in the Owner's Withdrawals account
- The Cash account was credited, so the transaction needs a debit (rule 1). The debit is applied to the Owner's Withdrawals account
- Rule 2 states that the equation must always be in balance. We know that the left side of the equation decreased because of the credit. The only way for the equation to balance is for the right side to *also* decrease
- Note that there is a “-” sign in front of the Capital account type. Whatever the balance of the account is, it is subtracted to the right side of the equation, causing it (the equation) to decrease
- Therefore, the debit to the Owner's Capital account must have increased the value of the account, so that it has a positive balance, and the right side of the equation can decrease (two negatives together create a positive that would actually increase the right side of the equation... which we don't want)
- Using t-charts the transaction looks like this...

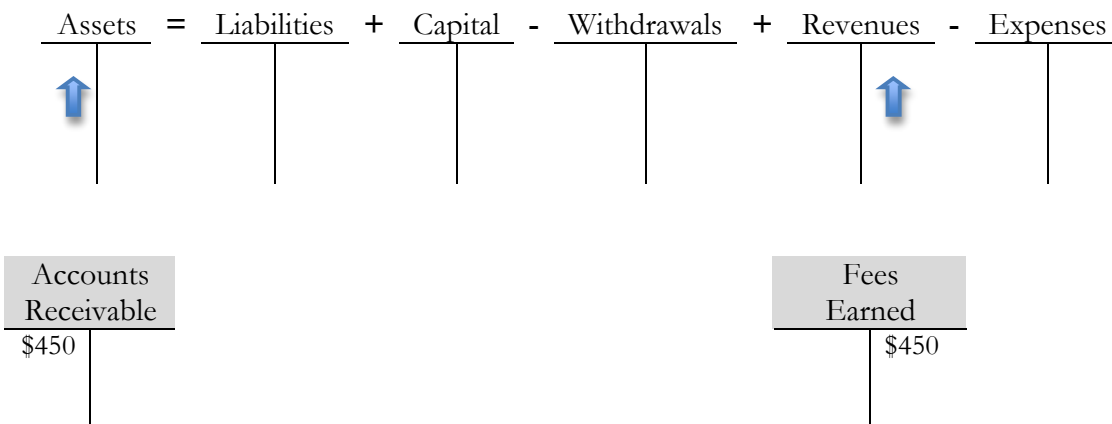


Example 5: Revenues

The company completes a job for a client and issues an invoice for \$450

Analysis

- Ideally, companies would receive cash immediately upon completion of the work they have done. Often, however, a company must wait to receive payment. The account used to record what a company is owed is an asset account called Accounts Receivable
- The Accounts Receivable account (an asset) is increasing so we know that it will receive the debit part of the transaction (rule 3)
- The company has *done work*. Whenever a company does work, the value of that work is recorded as Revenue. In this example, we will use the account named Fees Earned. It is common for the type of work done to be part of the account name (e.g. Consulting Fees Earned) but for this example we will keep it simple.
- The Accounts Receivable account was debited, so the transaction needs a credit (rule 1). The credit is applied to the Fees Earned account
- Rule 2 states that the equation must always be in balance. We know that the left side of the equation increased because of the debit. The only way for the equation to balance is for the right side to *also* increase
- Note that there is a “+” sign in front of the Revenues account type. Whatever the balance of the account is, it is added to the right side of the equation, causing it to increase
- Therefore, the credit to the Fees Earned account *must* have increased the value of the account
- Using t-charts the transaction looks like this...



Example 6: Expenses

The company receives a utilities bill for \$260, for services used the previous month. They will pay the bill next week.

Analysis

- Note that no assets (things the company owns) are affected by this transaction. This transaction takes place *only* on the right side of the accounting equation
- The company has used the utilities (e.g. water, electricity, gas) that they are being billed for. When a company *uses* something in the process of doing business, it must be recorded as an Expense.
- It is common to use *what was used* as part of the name of the expense account, so we will use Utilities Expense as one of the accounts in this transaction
- Because the company has not paid the bill yet, they owe that money. The Liabilities account called Accounts Payable is used to record what the company owes. From Example 2 we know that to increase a Liabilities account we must apply a credit
- Rule 1 states there must be matching debits and credits. Because the Accounts Payable account was credited, the Utilities Expense account is debited
- Rule 2 states that the equation must always be in balance. The credit to Accounts Payable increased the value of that account and therefore *increased* the right side of the equation.
- However, note that there is a “-” sign in front of the Expenses account type. Whatever the balance of the account is, it is subtracted to the right side of the equation, causing it (the equation) to *decrease*
- Even though the value of the Utilities Expense account is increased by the debit, the balance of the account causes the right side to decrease, and the equation stays balanced
- Using t-charts the transaction looks like this...

