

# Tots Tot Tots

Morley Evans ©1997

Accounting belongs to the *a priori* class of knowledge. Falling into the same group as geometry, it is primarily an exercise in logic. Accounting is the system used to record the financial transactions of an *accounting entity* which could be a company, a partnership, a family, or a person. Accounting records the prices of things involved in financial transactions at the time they were incurred.

Accounting divides all financial transactions into two general categories: ASSET and LIABILITY. Assets are owned by the *entity*; Liabilities are owed to others by the *entity*. Liabilities include one special category called EQUITY, which is owed to the owners of the *entity*. EQUITY includes two categories, INCOME and EXPENSE. INCOME is money coming into the *entity*; EXPENSE is money paid out by the *entity*.

Accounting requires the financial operations of the *entity* to be appropriately categorized, and the value of each transaction to be entered twice, once as a Debit (Dr) and once again as a Credit (Cr). Debits and Credits carry a charge, positive and negative, respectively, so every transaction will have a sum of zero. The categories into which an *entity's* financial affairs have been divided are called Accounts, the Ledgers of which, being a set of figures to be added, are tots. So we see that accounting is totting up tots, something which can be done by every tot. So let's leave no child behind!

The matrix below, illustrates what charge to assign to values entered into the accounting categories. Debits carry a plus sign; Credits carry a minus sign. ASSET categories are increased by a Debit and decreased by a Credit. LIABILITY categories (except EXPENSE) are increased by a Credit and decreased by a Debit. EXPENSE categories are charged the same way as ASSET categories; so, when an EXPENSE account is increased, as it is when you buy something, it is Debited. If this seems backward—as it usually does to most people—that is because we are used to seeing statements prepared by others,

such as our banks; in which case, the deposit to your bank account is a LIABILITY as far as the bank is concerned—because the deposit is *your* money, owed by the bank to you. When the bank's LIABILITY increases, as it does when you deposit money, the bank records a Credit; similarly, when you write a cheque, the bank's LIABILITY decreases—what the bank owes to you decreases—and it records a Debit. The bank's statement is a record of your position with the bank, not the bank's position with you.

figure 1

category	increase	decrease
I. ASSET	Dr+	Cr-
II. LIABILITY	Cr-	Dr+
A. Other	Cr-	Dr+
B. EQUITY	Cr-	Dr+
1. INCOME	Cr-	Dr+
2. EXPENSE	Dr+	Cr-

The principal task of accounting is proper categorization, not arithmetic; the financial affairs of the *accounting entity* must be appropriately categorized, or divided, into Accounts. Once that is done, the values of transactions must be entered as Debits and Credits into the appropriate Accounts. We shall deal with the method to analyze the financial affairs of an *entity* later, and deal only with the fundamentals now to illustrate how accounting is done.

It would be possible to create a set of accounts using only the basic categories of accounting shown above, provided one were satisfied with only the general information such would provide; but that is sufficient for our current needs; more detail can be added later. In the figure below, the basic accounting categories, or Accounts, are arranged horizontally across the page; to these have been added a category for the date of the transaction, as well as one for a description of the transaction.

The first transaction records that on January 1, 1997, the *entity* had Assets of \$1,000, and the owners of the *entity* owned that \$1,000. Assets and EQUITY

are each increased by \$1000. You will remember, from above, that an ASSET is increased by a Debit (which has a positive charge), and a LIABILITY is increased by a Credit (which has a negative charge). The sum of the transaction is zero, indicating the values entered are "in balance," as all entries must be. Summing each transaction (totting) is a check that Debits and Credits in the transaction are equal; but does not ensure that the correct values were entered, or that they were entered in the correct Accounts. Nevertheless, checking that every entry is balanced does help reduce errors.

figure 2

date	description	ASSET	LIABILITY			INCOME	EXPENSE	balance
			Other	EQUITY				
1/1/97	opening	1000		-1000			0	

Next, we'll record that on January 2, 1997, the *entity* borrowed \$400. We increase the LIABILITY account "Other" by \$400 (Cr-), and we increase ASSET by \$400 (Dr+). Now, our accounts look thus:

figure 3

date	description	ASSET	LIABILITY			INCOME	EXPENSE	balance
			Other	EQUITY				
1/1/97	opening	1000		-1000			0	
1/2/97	loan	<u>400</u>	<u>-400</u>	<u>0</u>			<u>0</u>	
balances (totals)		1400	-400	-1000			0	

The *entity* now has Assets worth \$1,400; it owes \$400; and the owners have EQUITY of \$1,000. We know this by totting up the accounts. We also know that there has been no INCOME or EXPENSE and we know that ASSET equals LIABILITY. How do we know that, you ask, when the Assets are \$1,400 and the Liabilities are -\$1,400? We know that by simple algebra. Assets must equal Liabilities (an axiom of accounting) and we have the equation  $1,400 - 1,400 = 0$ , which becomes  $1,400 = 1,400$  when we change the sign of -\$1,400 as we move it to

the right hand side of the equation.

Next, we'll record that on January 3, 1997, the *entity* was paid \$750 for services rendered. We record that ASSET has been increased by \$750 (Dr+) and that INCOME has been increased by \$750 (Cr-); the accounts of the *entity* now look like this:

figure 4

date	description	ASSET	LIABILITY			balance
			Other	EQUITY	INCOME	
1/1/97	opening	1000		-1000		0
1/2/97	loan	400	-400			0
1/3/97	Jones contract	<u>750</u>	<u>0</u>	<u>0</u>	<u>-750</u>	<u>0</u>
balances (totals)		2150	-400	-1000	-750	0

ASSET is now \$2,150, and LIABILITY totals -\$2,150; the sum of ASSET and LIABILITY is zero; ASSET equals LIABILITY. "But wait!" you say, "INCOME must be positive, and expense must be negative. This must be backwards." Not at all. Remember that INCOME and EXPENSE are subdivisions of EQUITY, which is a subdivision of LIABILITY, and the same rules of Debit and Credit always apply. As you will remember from figure 1 above, a Liability is increased when it is Credited, and a Credit is charged with a minus sign, so too with EQUITY, which has two subdivisions, INCOME and EXPENSE. For now, be reassured that increases in EXPENSE must be positive because EXPENSE is the opposite of INCOME, and increases in INCOME are negative.

Next, we'll record an expense of \$500, for consumables, purchased on January 4, 1997. Here, we must decrease ASSET by \$500 and increase EXPENSE by \$500, remembering that ASSET is decreased when it is Credited (Cr-), and EXPENSE is increased when it is Debited (Dr+).

figure 5

date	description	ASSET	LIABILITY			balance
			Other	EQUITY	INCOME	
1/1/97	opening	1000		-1000		0

1/2/97	loan	400	-400				0
1/3/97	Jones contract	750			-750		0
1/4/97	purchase	<u>-500</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>500</u>	<u>0</u>
balances (totals)		1650	-400	-1000	-750	500	0

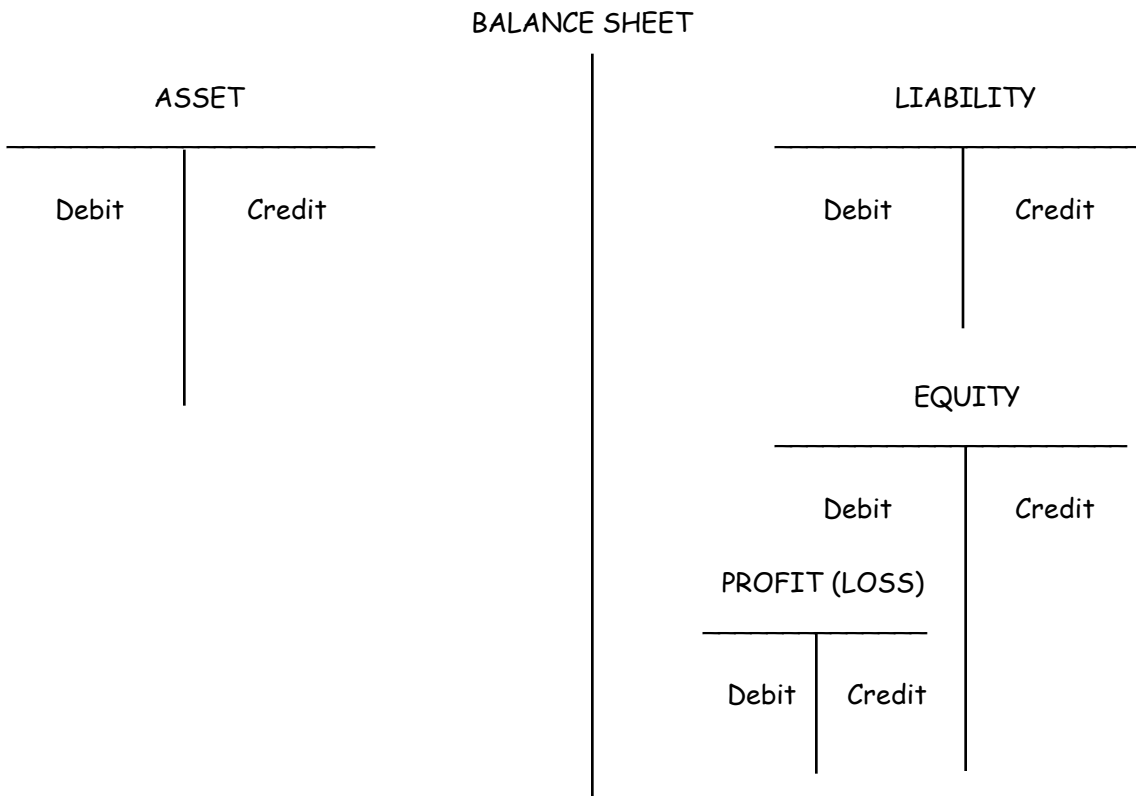
We can know many things by looking at the totals on the bottom line of figure 5: We know INCOME is -\$750 and EXPENSE is \$500, the sum of which—the Profit—is -\$250; this is the amount by which EQUITY has been increased (now it is -\$1,250). We also know that ASSET is \$1,650 (this would be the bank account balance, if that were the only ASSET); and \$400 is owed to someone other than the owners of the *entity*. We can check that the amount of EQUITY the owners have in the *entity* is \$1,250, by mentally paying off the loan: we would subtract \$400 from \$1650, and have \$1,250 remaining, which is the EQUITY, the amount owed to the owners of the *entity*. We see that the horizontal line of account balances sums to zero; this is the Trial Balance, a term you may have heard accountants and bookkeepers use. And what of the accounting axiom that Assets = LIABILITY? We see that “1650 = 400 +1000 +750 -500” conforms to the axiom, and that the values on the right-hand side of the equation appear in their familiar form, with their signs reversed.

That is the essence of accounting. All that remains is building on this foundation. Such additional issues include: 1). further subdividing the Account categories to reflect the financial activities of the *entity*; 2). addressing compound entries, in which more than two entries are made, but all still sum to zero, as always; 3). compiling a catalogue itemizing how various transactions should be handled; 4). a discussion of accounting periods and accruals; 5). adding different types of transactions, as they occur; 6). choosing a method to record transactions; 7). a word on depreciation; 8). another word on taxation; 9). arranging the Account balances (totals) into the customary financial statements; and 10). a discussion of “T” accounts.

For now, let’s skip to the last, for “T” accounts are a favourite of accountants and bookkeepers:

A "T" account separates Debits and Credits into columns with Debits on the left-hand side, and Credits on the right-hand side. Presented this way, the values do not have signs, unless they are, in fact, less than zero. This traditional method of presentation immeasurably complicates accounting operations, and even understanding accounting principals, but it is worth knowing because it is, of course, consistent with these principals and with the way financial statements are presented. Graphically the method does present the fundamentals.

figure 6



While accounting is not a *complex* system it can easily become so *complicated* one becomes utterly confused and lost after only a step or two. Knowing the basics before beginning is one's only hope. Knowing the *charge* to assign to Debit and Credit and totting algebraically greatly simplifies the task.

Below is a set of transactions made slightly more complicated by the

inclusion of "bank", "stock" (inventory), and "accounts receivable" to the ASSET category and "loan", "accounts payable", "sales", and "costs" to the LIABILITY category. Using *charges* rather simplifies things.

figure 7

date	description	ASSETS					LIABILITIES				trial
		bank	stock	a/r	loan	a/p	equity	sales	costs		
1/1/97	set up company	100					-100			0	
1/2/97	buy new stock	-50	50							0	
1/3/97	credit sale to XYZ			100				-100		0	
	reduce stock		-50						50	0	
1/4/97	XYZ paid bill	100		-100						0	
1/5/97	buy new stock	-100	100							0	
1/6/97	cash sale to ABC	100						-100		0	
	reduce stock		-50						50	0	
1/7/97	credit sale to JKL			50				-50		0	
	reduce stock		-25						25	0	
1/8/97	bank loan	500			-500					0	
1/9/97	buy new stock	-400	400							0	
1/9/97	credit sale XYZ			200				-200		0	
	reduce stock		-100						100	0	
1/10/97	cash sale to ABC	200						-200		0	
	reduce stock		-100						100	0	
1/12/97	XYZ paid bill	200		-200						0	
1/14/97	loan payment	<u>-300</u>	<u>0</u>	<u>0</u>	<u>300</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
totals or balances		350	225	50	-200	0	-100	-650	325	0	
(profit) loss								-325			
total ASSETS and LIABILITIES				625				-625		0	

So there we have it: The foundation upon which all accounting is erected and a way every child can be taught to understand it. It must be conceded however that not every tot will have an interest in totting tots and more will have even less interest in doing the everyday task of record keeping that accounting requires. Some have more aptitude for certain things than do others; others can paint or write music or play football and would be better at these tasks.

## OUTLINE NOTES:

### I. Accounting is Important

- A. is the system to record money transactions
- B. the foundation of finance

### II. Essence of Accounting

- A. accounting is a system of putting values into categories and adding them up to show the totals in each category
- B. financial statements arrange these totals in a conventional way

### III. Concepts Required

#### A. logic

- 1. categorization
- 2. double-entry

#### B. addition (algebraic)

### IV. the key to accounting

- A. assets (increase Dr+; decrease Cr-)
- B. liabilities (increase Cr-; decrease Dr+)
  - 1. equity
    - a. income
    - b. expense (increase Dr+; Cr-)

category	increase	decrease
asset	Dr+	Cr-
liability	Cr-	Dr+
equity	Cr-	Dr+
income	Cr-	Dr+
expense	Dr+	Cr-

V. accruals

VI. chart of accounts

A. write description of your financial affairs

B. put elements into accounting categories

VII. systems to perform accounting

A. manual

B. computerized