

**Introduction to Business Accounting**

**Chapter 4 - Analyzing Transactions**

**WORKBOOK**

## The Accounting Equation & Transactions

Recall the Accounting Equation:

$$\begin{array}{rclclcl} \underline{\text{Assets}} & = & \underline{\text{Liabilities}} & + & \underline{\text{Owner Equity}} \\ \text{Accounts} & & \text{Accounts} & & \text{R. Neal,} \\ \text{Cash + Receivable + Equipment} & = & \text{Payable} & + & \text{Capital} \end{array}$$

Let's start a business!!

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## The Accounting Equation & Transactions

At the start of R. Neal's Plumbing business, he makes a \$15,000 investment in his business. Let's see how that is recorded on the accounting equation.

<u>Assets</u>	=	<u>Liabilities</u> +	<u>Owner Equity</u>
Accounts		Accounts	R. Neal,
<u>Cash</u> + <u>Receivable</u> + <u>Equipment</u>	=	<u>Payable</u> +	<u>Capital</u>
<b>+\$15,000</b>			<b>+\$15,000 Investment</b>

Notice that Assets now total \$15,000 which still balances with total Liabilities and Equity of \$15,000.

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Now let's use the equation to record his purchase of equipment on credit for \$1,500.

<u>Assets</u>	=	<u>Liabilities</u> +	<u>Owner Equity</u>
Accounts		Accounts	R. Neal,
<u>Cash</u> + <u>Receivable</u> + <u>Equipment</u>	=	<u>Payable</u> +	<u>Capital</u>
+\$15,000			+\$15,000
			
<div>Purchase</div> <div>\$16,500</div>		<div>\$16,500</div>	

## The Accounting Equation & Transactions

Let's use the equation to record the sale of plumbing services by R. Neal Plumbing to a customer for \$3,300 on credit.

<u>Assets</u>			=	<u>Liabilities</u>	+	<u>Owner Equity</u>
Accounts				Accounts		R. Neal,
<u>Cash</u>	+	<u>Receivable</u> + <u>Equipment</u>	=	<u>Payable</u>	+	<u>Capital</u>
+\$15,000						+\$15,000
		+\$1,500		+\$1,500		
<span style="color: red;">+\$3,300</span>				<span style="color: red;">+\$3,300</span>		<span style="color: red;">Revenue</span>
\$19,800				\$19,800		

## The Accounting Equation & Transactions

Now let's record the receipt of cash from the customer and the payment by Mr. Neal for his equipment 30 days later.

<u>Assets</u>			=	<u>Liabilities</u>	+	<u>Owner Equity</u>
Accounts				Accounts		R. Neal,
<u>Cash</u>	+	<u>Receivable</u> + <u>Equipment</u>	=	<u>Payable</u>	+	<u>Capital</u>
+\$15,000						+\$15,000
		+\$1,500		+\$1,500		
		+\$3,300				+\$3,300
+\$3,300		<b>-\$3,300</b>				
<b>-\$1,500</b>				<b>-\$1,500</b>		<b>Collect</b>
\$16,800	\$0	\$1,500		\$0		<b>Payment</b>
\$18,300				\$18,300		

## Accounts

In reality, we don't use the accounting equation to record transactions. Instead, we use accounts.

- An account is a separate record that shows the increases and decreases in each category of asset, liability, equity, revenue and expense.

### Title

We will start by using  
a T account to  
illustrate increases  
and decreases

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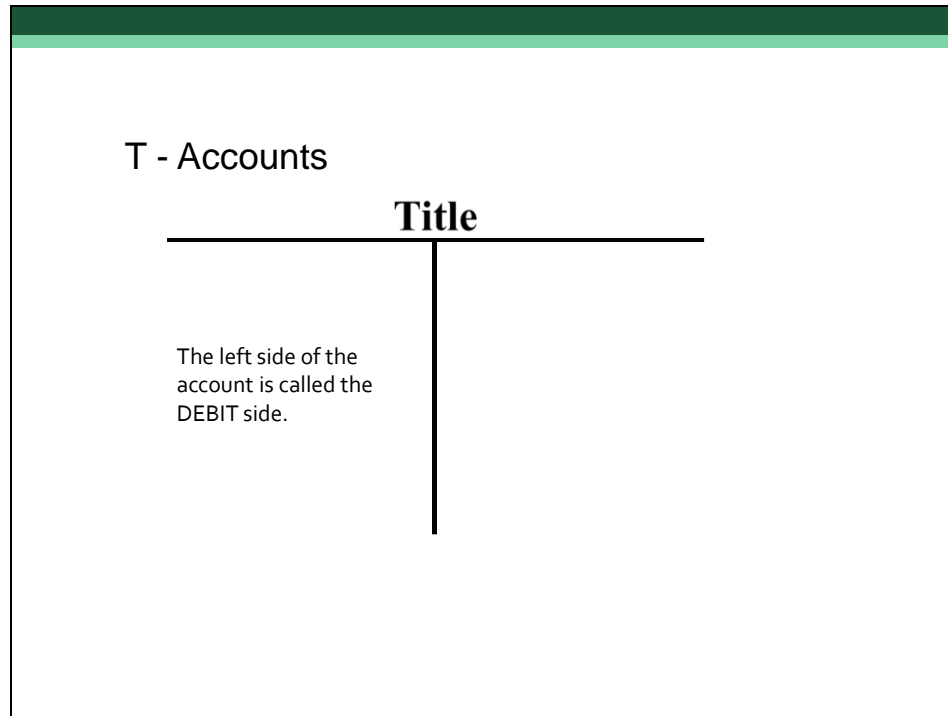
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## T - Accounts

**Title**

The right side of the account is called the CREDIT side.

*A debit or credit can represent an increase in one account while it is a decrease in another account. It does not mean the same for all accounts.*

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## Ledgers and Accounts

The **General Ledger** is a group of accounts used by a business entity.

The **Chart of Accounts** is a list of all the accounts in the ledger

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# Chart of Accounts

XYZ Chart of Accounts	
Balance Sheet Accounts	Income Statement Accounts
Assets	Revenue
10 Cash	70 Fees Earned
12 Accounts Receivable	72 Rent Revenue
14 Office Supplies	Expenses
16 Prepaid Insurance	80 Wages Expense
18 Buildings	82 Rent Expense
19 Accumulated Depreciation - Buildings	84 Depreciation Expense
20 Office Equipment	86 Utilities Expense
Liabilities	88 Office Supplies Expense
40 Accounts Payable	80 Insurance Expense
42 Wages Payable	82 Miscellaneous Expense
44 Unearned Rent	
Stockholders' (Owner's) Equity	
60 Capital Stock	
62 Retained Earnings	
64 Dividends	

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## Types of Accounts

### *Tangible Assets*

- Cash
- Accounts receivable
- Buildings, land & Equipment
- Supplies & inventory
- Furniture & Fixtures
- Investments

*Intangible assets* are a form of asset that is represented only on paper.  
You cannot touch it.

- Copyrights
- Trademarks
- Patents

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## Types of Accounts

*Short Term Liabilities* are owed to a creditor in less than one year time.

- Accounts payable
- Wages payable
- Rent payable
- Taxes payable
- Current portion of Long Term Debt

*Long Term Liabilities* are owed to a creditor in greater than one year time.

- Bonds payable – money owed to bond holders
- Loans payable – money owed to banks
- Unearned rent – money prepaid by renters for future month's rent

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## Types of Accounts

**Stockholders' (owner's) Equity** is the stockholders' (owner's) right to the assets after all liabilities have been paid. Also called net assets. It is made up of investments and retained earnings less any withdrawals or dividends.

**Retained Earnings** is the account where all previous net income or loss is recorded at the end of each year.

**Dividends** (draw) are the distributions of earnings to stockholders (owner's).

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## Types of Accounts

**Revenues** are the increase to stockholders' (owner's) equity as a result of selling services or products to customers.

- Fees earned
- Commissions earned
- Rent earned
- Sales
- Interest earned

### Expenses

- Utility expense
- Rent expense
- Interest expense
- Supplies expense
- Repair and maintenance
- Salary expense
- Depreciation

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## Double-Entry System

All accounting systems use a system known as double-entry accounting which is based on the accounting equation.

This system requires:

- Every business transaction to be recorded in at least two accounts
- The total debits and total credits must be equal for each transaction

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## Balance Sheet – Debit and Credit Rules

Note that an asset account increases with a debit whereas a liability and equity account increase with a credit.

## Transactions – Double-Entry System

### Income Statement – Debit and Credit Rules

(based on relationship with stockholders' [owner's] equity)

Income Statement Accounts			
Revenue Accounts		Expense Accounts	
Debit decreases (-)	Credit increases (+)	Debit increases (+)	Credit decreases (-)

All Revenue accounts increases with a credit whereas all expense accounts increase with a credit.

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## Transactions – Double-Entry System

### Dividends – Debit and Credit Rules

(based on effect on stockholders' [owner's] equity)

Dividends	
Debit increases (+)	Credit decreases (-)

Because dividends reduce owner's equity, they increase with a debit and decrease with a credit.

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## Transactions – Normal Balances

A **Normal Balance** refers to whether an account normally has a debit balance or a credit balance. The normal balance should always be based on what increases an account.

Illustration using a T account:

		 Cash
Beginning Balance	\$10,000	
	4,000	\$2,500
	1,000	750
	<u>\$15,000</u>	<u>\$3,250</u>
Ending Balance	\$11,750	

Since cash is an asset, it's  
normal balance is a debit

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## Knowledge Check

What is the normal balance of ....

An asset account?

An expense account?

A revenue account?

A liability account?

An equity account?

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## Knowledge Check

What is the normal balance of ....

An asset account? Debit

An expense account? Debit

A revenue account? Credit

A liability account? Credit

An equity account? Credit

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## Transactions – Normal Balance

### Balance Sheet

Balance Sheet Accounts					
ASSETS Asset Accounts		=	LIABILITIES Liability Accounts		+
Debit increases (+)	Credit decreases (-)		Debit decreases (-)	Credit increases (+)	STOCKHOLDERS' EQUITY Stockholders' Equity Account
<u>BALANCE</u>				<u>BALANCE</u>	

The **BALANCE** indicates the Normal Balance for the account.

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## Transactions – Normal Balance

### Income Statement

Income Statement Accounts			
Revenue Accounts		Expense Accounts	
Debit decreases (-)	Credit increases (+)	Debit increases (+)	Credit decreases (-)
	<u>BALANCE</u>	<u>BALANCE</u>	

The **BALANCE** indicates the Normal Balance for the account.

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Record the following transaction in the T accounts provided:

Record the following transaction in the T accounts provided:

1. An owner invests \$10,000 in their business
2. Owner earns fees of \$2,500 on credit
3. Owner pays \$500 cash for utilities.
4. Owner receives payment for fees 30 days later.

Cash	Owner's Equity	Accounts Receivable
Fees Earned	Utility Expense	

Record the following transaction in the T accounts provided:

Record the following transaction in the T accounts provided:

- The diagram illustrates the flow of cash and its impact on different accounts. It consists of five T-accounts arranged in two rows. The top row contains 'Cash', 'Owner's Equity', and 'Accounts Receivable'. The bottom row contains 'Fees Earned' and 'Utility Expense'. Arrows indicate the direction of the flow: from Cash to Owner's Equity, from Cash to Accounts Receivable, from Fees Earned to Cash, and from Utility Expense to Cash.

Cash		Owner's Equity		Accounts Receivable	
1) \$10,000	3) \$500	1) \$10,000		2) \$2,500	4) \$2,500
4) \$2,500					

Fees Earned		Utility Expense	
	2) \$2,500	3) \$500	

## Journalizing Transactions

A **Journal** is a log in which every transaction is initially entered.

**Journalizing** is the process of recording a transaction in a journal.

A **Journal Entry** is the entry that is placed in a journal for each transaction.

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## Transactions – Journalizing

The following transaction will be used to illustrate the process of Journalizing.

An owner borrows \$50,000 from a bank and then uses \$30,000 to buy equipment.

General Journal			GJ1	
Date	Account Title and Description	Ref.	Debit	Credit
20X1				
Aug. 1	Cash		50,000	
	Notes Payable			50,000
	Borrowed \$50,000			
3	Equipment		30,000	
	Cash			30,000
	Purchased equipment			

Step 1 – the date of the transaction is entered into the Date column

XYZ Journal – Page 5					
Date		Description	Post. Ref.	Debit	Credit
March	15				

## Transactions – Journalizing

Step 2 – The title of the account to be debited is recorded at the left-hand margin under the Description column and the amount to be debited is entered in the Debit column.

XYZ Journal – Page 5				
Date		Description	Post. Ref.	Debit      Credit
		Step 2		Step 2

XYZ Journal – Page 5				
Date		Description	Post. Ref.	Debit      Credit
March	15	Buildings		20,000

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## Transactions – Journalizing

Step 3 – The title of the account to be credited is listed below and to the right of the debited account title, and the amount to be credited is entered in the Credit column.

XYZ Journal – Page 5						
Date		Description		Post. Ref.	Debit	Credit
		Step 3				Step 3

XYZ Journal – Page 5					
Date		Description	Post. Ref.	Debit	Credit
March	15	Buildings Cash		20,000	20,000

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Step 4 – A brief description should be entered below the credited account.

XYZ Journal – Page 5					
Date		Description	Post. Ref.	Debit	Credit
March	15	Buildings Cash Purchased storage garage.		20,000	20,000



## Transactions – Journalizing

Step 5 – The Post. Ref. (Posting Reference) column is left blank when the journal entry is initially recorded. This column is used later when the journal entry amounts are transferred to the accounts in the ledger.

XYZ Journal – Page 5					
Date		Description	Post. Ref.	Debit	Credit
			Step 5		

XYZ Journal – Page 5					
Date		Description	Post. Ref.	Debit	Credit
March	15	Buildings Cash Purchased storage garage.	18 10	20,000	30,000

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## Affect of Journals on the Accounts

### Accounting System Impact (of the above transaction)

Assets		=	Liabilities	+	Owner's Equity	
	Buildings					
March 15	20,000					
	Cash					
	March 15					
	20,000					

The account BUILDINGS has an increase  
And  
The account CASH has a decrease By an EQUAL amount

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Transaction B: On March 17, XYZ received payment for services performed in the amount of \$10,000.

- | XYZ Journal – Page 6 |   |             |            |       |        |
|----------------------|---|-------------|------------|-------|--------|
| Date                 |   | Description | Post. Ref. | Debit | Credit |
| Step                 | 1 |             |            |       |        |

## Transactions – Journalizing

Step 2 – The title of the account to be debited is recorded at the left-hand margin under the Description column and the amount to be debited is entered in the Debit column.

XYZ Journal – Page 6				
Date		Description	Post. Ref.	Debit      Credit
		Step 2		Step 2

XYZ Journal – Page 6				
Date		Description	Post. Ref.	Debit      Credit
March	17	Cash		10,000

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## Transactions – Journalizing

Step 3 – The title of the account to be credited is listed below and to the right of the debited account title, and the amount to be credited is entered in the Credit column.

XYZ Journal – Page 6					
Date		Description	Post. Ref.	Debit	Credit
		Step 3			Step 3

XYZ Journal – Page 6					
Date		Description	Post. Ref.	Debit	Credit
March	17	Cash Fees Earned		10,000	10,000

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## Transactions – Journalizing

Step 4 – A brief description must be entered below the credited account.

XYZ Journal – Page 6					
Date		Description	Post. Ref.	Debit	Credit
		Step 4			

XYZ Journal – Page 6					
Date		Description	Post. Ref.	Debit	Credit
March	17	Cash Fees Earned Received fees from client.		10,000	10,000

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## Transactions – Journalizing

Step 5 – The Post. Ref. (Posting Reference) column is left blank when the journal entry is initially recorded. This column is used later when the journal entry amounts are transferred to the accounts in the ledger.

XYZ Journal – Page 6				
Date		Description	Post. Ref.	Credit
			Step 5	
XYZ Journal – Page 6				
Date		Description	Post. Ref.	Credit
March	17	Cash Fees Earned Received fees from client.	10 70	10,000  10,000

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**Accounting System Impact**  
(of the above transaction)

The account CASH has an increase  
And  
The account FEES EARNED has an increase  
By an EQUAL amount



Transaction C: On March 21, XYZ ordered and received office supplies of \$500 which will be paid for in 30 days.

XYZ Journal – Page 10					
Date		Description	Post. Ref.	Debit	Credit
Step	1				

XYZ Journal – Page 10					
Date		Description	Post. Ref.	Debit	Credit
March	21				

## Transactions – Journalizing

Step 2 – The title of the account to be debited is recorded at the left-hand margin under the Description column and the amount to be debited is entered in the Debit column.

XYZ Journal – Page 10				
Date	Description	Post. Ref.	Debit	Credit
	Step 2		Step 2	

XYZ Journal – Page 10				
Date	Description	Post. Ref.	Debit	Credit
March 21	Office Supplies		500	

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Step 3 – The title of the account to be credited is listed below and to the right of the debited account title, and the amount to be credited is entered in the Credit column.

XYZ Journal – Page 10					
Date		Description	Post. Ref.	Debit	Credit
		Step 3			Step 3

XYZ Journal – Page 10					
Date		Description	Post. Ref.	Debit	Credit
March	21	Office Supplies Accounts Payable		500	500

## Transactions – Journalizing

Step 4 – A brief description must be entered below the credited account.

XYZ Journal – Page 10					
Date		Description	Post. Ref.	Debit	Credit
		Step 4			

XYZ Journal – Page 10					
Date		Description	Post. Ref.	Debit	Credit
March	21	Office Supplies Accounts Payable Ordered office supplies on account.		500	500

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Step 5 – The Post. Ref. (Posting Reference) column is left blank when the journal entry is initially recorded. This column is used later when the journal entry amounts are transferred to the accounts in the ledger.

XYZ Journal – Page 10					
Date		Description	Post. Ref.	Debit	Credit
			Step 5		

XYZ Journal – Page 10					
Date		Description	Post. Ref.	Debit	Credit
March	21	Office Supplies Accounts Payable Ordered office supplies on account.	14 40	500	500

**Accounting System Impact**  
(of the above transaction)

The account CASH has an increase  
And  
The account ACCOUNTS PAYABLE has an increase  
By an EQUAL amount

Transaction D: On March 31, XYZ paid rent of \$1,000 and utilities of \$300.

XYZ Journal – Page 14					
Date		Description	Post. Ref.	Debit	Credit
Step	1				

XYZ Journal – Page 14					
Date		Description	Post. Ref.	Debit	Credit
March	31				

## Transactions – Journalizing

Step 2 – The title of the account to be debited is recorded at the left-hand margin under the Description column and the amount to be debited is entered in the Debit column.

XYZ Journal – Page 14				
Date		Description	Post. Ref.	Debit      Credit
		Step 2		Step 2

XYZ Journal – Page 14				
Date		Description	Post. Ref.	Debit      Credit
March	31	Rent Expense Utilities Expense		1,000 300

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## Transactions – Journalizing

Step 3 – The title of the account to be credited is listed below and to the right of the debited account title, and the amount to be credited is entered in the Credit column.

XYZ Journal – Page 14					
Date		Description		Post. Ref.	Credit
		Step 3			Step 3

XYZ Journal – Page 14					
Date		Description		Post. Ref.	Credit
March	31	Rent Expense Utilities Expense Cash			1,000 300 1300

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## Transactions – Journalizing

Step 4 – A brief description should be entered below the credited account.

XYZ Journal – Page 14					
Date		Description	Post. Ref.	Debit	Credit
		Step 4			

XYZ Journal – Page 14					
Date		Description	Post. Ref.	Debit	Credit
March	31	Rent Expense Utilities Expense Cash Paid monthly expenses.		1,000 300	1300

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## Transactions – Journalizing

Step 5 – The Post. Ref. (Posting Reference) column is left blank when the journal entry is initially recorded. This column is used later when the journal entry amounts are transferred to the accounts in the ledger.

XYZ Journal – Page 14				
Date		Description	Post. Ref.	Credit
			Step 5	
XYZ Journal – Page 14				
Date		Description	Post. Ref.	Credit
March	31	Rent Expense	82	1,000
		Utilities Expense	86	300
		Cash	10	1300
		Paid monthly expenses.		

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**Accounting System Impact**  
(of the above transaction)

The account CASH has a decrease  
And  
The account Rent Expense has an increase  
The account Utilities Expense has an increase  
(which are added together)  
By an EQUAL amount



Questions

and

Answers

## Review Questions:

1. What is the normal balance in an Equipment account?
  - A. Debit
  - B. Credit
2. What is the normal balance in the Rent expense account?
  - A. Debit
  - B. Credit
3. True or False: When recording a withdrawal for an owner, you debit owner's equity and credit cash.
  - A. True
  - B. False
4. True or False: A patent is a tangible asset.
  - A. True
  - B. False
5. When you pay off accounts payable you:
  - A. Debit cash
  - B. Credit accounts payable
  - C. Credit cash
  - D. Debit revenue

## **Answer Key:**

1. A  
Debit is the normal balance in an Equipment account.
2. A  
Debit is the normal balance in the Rent expense account.
3. B  
False. When recording a withdrawal for an owner, you debit owner's withdrawals and credit cash.
4. B  
False. A patent is an intangible asset.
5. C  
When you pay off accounts payable you credit cash and debit accounts payable.