



香港中文大學
The Chinese University of Hong Kong

Chapter 2 Recording Business Transactions

Fall 2019

Prof. Sumi Jung

Chapter 1 Review

- ▶ What are the four financial statements?
- ▶ The statement that shows transactions with shareholders is called...
- ▶ Which statement is (are) stated at a point in time?
- ▶ Which statement is (are) stated over a period of time?
- ▶ What are the 3 categories of cash flows?

Review: The Four Financial Statements

Income Statement

$$\begin{array}{r} \boxed{\text{Revenues}} \\ - \text{Expenses} \\ \hline = \text{Net Income} \end{array}$$

Statement of Changes in Equity

$$\begin{array}{r} (\text{Beg.}) \text{ Equity} \\ + \boxed{\text{Net Income}} \\ - \boxed{\text{Dividends}} \\ + \text{Other transactions} \\ \text{with shareholders} \\ \hline = \text{Ending Equity} \end{array}$$

Statement of Cash Flows

$$\begin{array}{r} \text{Beginning Cash Balance} \\ + \text{Change in Cash} \\ \hline = \boxed{\text{Ending Cash}} \end{array}$$

Balance Sheet

$$\begin{array}{r} \boxed{\text{Liabilities}} \\ + \boxed{\text{Equities}} \\ \hline = \text{Assets} \end{array}$$

Learning Objective 2.1

Explain what a transaction is

Transaction Analysis

- ▶ To understand amounts that appear on a company's balance sheet, we need to answer these questions.
 - (1) What business activities cause change in the balance sheet?
 - (2) How do specific activities affect each balance?
 - (3) How do companies keep track of balance sheet amounts?

Exhibit 1-11 Alibaba's Balance Sheets

A1				
	A	B	C	D
1	Alibaba Group Holdings Limited Consolidated Balance Sheets	As of March 31		
2	(Adapted, in millions of ¥ and US\$)	2015	2016	2016
3	Assets:			
4	Cash and cash equivalents	¥ 108,193	¥ 106,818	\$ 16,566
5	Short-term investments	17,806	8,878	1,377
6	Accounts receivable	1,067	1,209	188
7	Other current assets	15,043	17,165	2,661
8	Total current assets	142,109	134,070	20,792
9	Property, plant and equipment	12,244	16,505	2,560
10	Long-term investments	48,488	120,853	18,742
11	Intangible assets	48,508	87,015	13,495
12	Other non-current assets	4,085	6,007	932
13	Total non-current assets	113,325	230,380	35,729
14	Total assets	255,434	364,450	56,521
15	Liabilities:			
16	Accounts payable and accruals	19,834	27,334	4,240
17	Short-term bank borrowings	1,990	4,304	667
18	Income tax payable	2,733	2,790	433
19	Customer deposits and advances	15,115	17,611	2,731
20	Total current liabilities	39,672	52,039	8,071
21	Long-term bank borrowings	1,609	1,871	290
22	Other borrowings	48,994	51,596	8,002
23	Other non-current liabilities	7,088	9,055	1,404
24	Total non-current liabilities	57,691	62,522	9,696
25	Total liabilities	97,363	114,561	17,767
26	Equity:			
27	Share capital	117,143	132,207	20,504
28	Retained earnings	24,842	78,752	12,213
29	Other equity items	16,086	38,930	6,037
30	Total equity	158,071	249,889	38,754
31	Total liabilities and equity	¥ 255,434	¥ 364,450	\$ 56,521
32				

Transactions

- ▶ Accounting is all about keeping track of **transactions**
- ▶ **Transactions** are “events” that have a financial impact on the business and can be measured reliably
 - Not all events are transactions
- ▶ A transaction is either
 - An exchange of assets/liabilities between a company and one or more external parties
 - A measurable internal event such as adjustments for the use of assets to a business

Learning Objective 2.2

Keep track of financial statement items.

The Account

These are all **categories** of accounts



- ▶ An **account** is a record of all the changes in **a particular** asset, liability and shareholders' equity element
 - Basic summary device of accounting
 - In class, we will use examples known as a T-account

Assets

Cash

Accounts &
Notes
Receivable

Inventory

Prepaid
Expenses

Land

Buildings

Equipment,
Furniture &
Fixtures

Assets

Asset Name	Description
Cash	Money and any medium of exchange including bank account balances, paper currency, coins, certificates of deposit, and checks.
Accounts Receivable	Companies sell their goods and services and receives a promise for future collection of cash. The Accounts receivable account holds these amounts. (from <u>customers</u>)
Notes Receivable	A note receivable is similar to an account receivable, but a note receivable is more binding because the borrower signs a note, often with a specific interest rate. (from <u>borrowers</u>)
Inventory	The products a company sells to customers. Other titles for this account include <u>Stocks</u> and <u>Merchandise inventory</u> .
Prepaid Expenses	A future expense that has already been paid. Examples: Prepaid rent, Prepaid insurance, and Supplies.
Land	The Land account shows the cost of the land a company uses in its operations.
Buildings	The costs of office buildings, manufacturing plants, etc.
Equipment, Furniture, and Fixtures	These asset accounts includes items such as computers, office furniture and store shelving.
	(Land, Buildings, Equipment are commonly combined into PPE)

Liabilities

Accounts
payable

Notes
payable

Accrued
liabilities

Liabilities

Liability Name	Description
Accounts Payable	The direct opposite of Accounts receivable. A company's promise to pay a debt arising from a credit purchase.
Notes Payable	A note payable is the opposite of a note receivable. The Notes payable account includes the amounts a company must pay because it signed notes promising to pay a future amount, typically with interest.
Accrued Liabilities	An accrued liability is a liability for an <u>expense</u> you have not yet paid. Interest payable and Salary payable are accrued liability accounts for most companies. Income tax payable is another accrued liability.

Shareholders' Equity

Share Capital,
Common Stock,
Preferred Stock

Retained
Earnings

Dividends

Revenues

Expenses

Shareholders' Equity

Equity Name	Description
Share Capital (Contributed Capital)	The owners' investment in the corporation. The corporation receives cash and issues shares to its shareholders. A company's ordinary share capital (<u>Common Stock</u>) is its most basic element of equity. All corporations have ordinary shares.
Retained Earnings	This account shows the <u>cumulative net income</u> earned by a corporation over its lifetime, minus its cumulative net losses and dividends.
Dividends	Dividends are optional; they are <i>declared</i> by the board of directors and represent a payment <u>from retained earnings</u> back to shareholders
Revenues	The increase in shareholders' equity from delivering goods or services to customers: includes sales revenue, service revenue, interest revenue, rent revenue, etc.
Expenses	The cost of operating a business. Expenses decrease shareholders' equity, the opposite effect of revenues. Examples include: Cost of goods sold, Salary expense, Rent expense, Advertising expense, Insurance expense, Utilities expense, and Income tax expense. Businesses strive to minimize expenses and thereby maximize net income

Learning Objective 2.3

Analyze the impact of business transactions on the accounting equation

Principles of Transaction Analysis

- Every transaction affects at least **two** accounts (**dual effects**): Double-Entry Accounting.
- The accounting equation must remain in balance after each transaction.

$$\begin{array}{ccccc} \mathbf{A} & = & \mathbf{L} & + & \mathbf{SE} \\ \text{(Assets)} & & \text{(Liabilities)} & & \text{(Stockholders' Equity)} \end{array}$$

Transaction Analysis

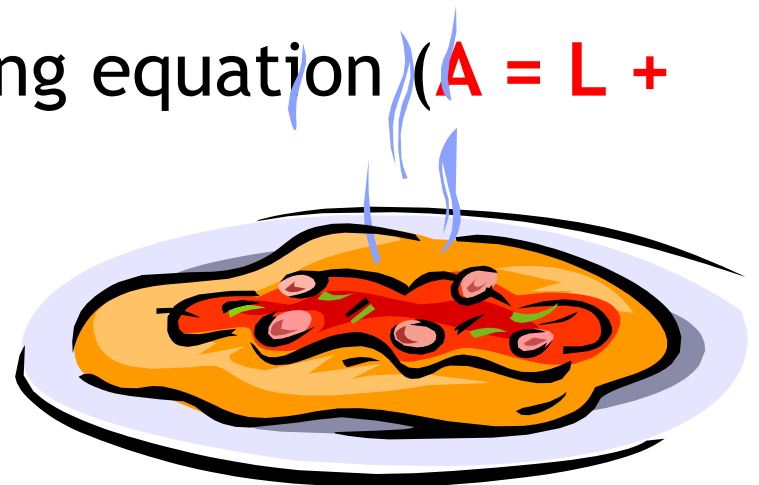
- **Step1: Accounts and effects**

- Identify the accounts affected and classify them by type of account (A, L, SE).
- Determine the direction of the effect (increase or decrease) on each account.

- **Step2: Balancing**

- Verify that the accounting equation (**A = L + SE**) remains in balance.

Let's see some examples from Papa John's transactions.



Examples

- (a) Papa John's issues \$2,000 of additional common stock to new investors for cash.

Identify & Classify the Accounts

Cash (asset)

Contributed Capital (SE)

Determine the Direction of the Effect

Cash + 2,000
(increase)

Contributed Capital + 2,000
(increase)

Verify the accounting equation

2,000
Assets (A)

=

0
Liabilities (L)

+

2,000
Equity (SE)

Examples

- (b) The company borrows \$6,000 from the local bank, signing a three-year note.

Identify & Classify the Accounts

Cash (asset)

Notes Payable (liability)

Determine the Direction of the Effect

Cash + 6,000
(increase)

Notes Payable + 6,000
(increase)

Verify the Accounting Equation

6,000
Assets (A)

=

6,000
Liabilities (L)

+

0
Equity (SE)

Examples

- (c) Papa John's purchases \$10,000 of new equipment, paying \$2,000 in cash and signing a two-year note payable for the rest.

Identify & Classify the Accounts

Equipment (asset)

Cash (asset)

Notes Payable (liability)

Determine the Direction of the Effect

Equipment + 10,000 (inc.)

Cash - 2,000 (dec.)

Notes Payable + 8,000 (inc.)

Verify the Accounting Equation

10,000 - 2,000

Assets (A)

=

8,000

Liabilities (L)

+

0

Equity (SE)

Examples

- (d) Papa John's lends \$3,000 to new franchisees who sign five-year notes agreeing to repay the loan.

Identify & Classify the Accounts

Cash (asset)

Notes Receivable (asset)

Determine the Direction of the Effect

Cash - 3,000 (decrease)

Notes Receivable + 3,000 (increase)

Verify the Accounting Equation

$$\begin{array}{ccccccc} 3,000 & - & 3,000 & = & 0 & + & 0 \\ \text{Assets (A)} & & & & \text{Liabilities (L)} & & \text{Equity (SE)} \end{array}$$

Examples

- (e) Papa John's purchases \$1,000 of stock in other companies as an investment.

Identify & Classify the Accounts

Cash (asset)

Investments (asset)

Determine the Direction of the Effect

Cash - 1,000 (decrease)

Investment + 1,000 (increase)

Verify the Accounting Equation

$$\begin{array}{rcccl} 1,000 & - & 1,000 & = & 0 & + & 0 \\ \text{Assets (A)} & & & & \text{Liabilities (L)} & & \text{Equity (SE)} \end{array}$$

Examples

- (f) Papa John's board of directors declares that the company will pay \$3,000 in cash dividends to shareholders next month.

Identify & Classify the Accounts

Dividends payable(liability)

Retained Earnings (SE)

Determine the Direction of the Effect

Dividends payable + 3,000
(increase)

Retained Earnings - 3,000
(decrease)

Verify the Accounting Equation

0	=	3,000	+	- 3,000
Assets (A)		Liabilities (L)		Equity (SE)

Self Quiz

- Best Buy, Inc. purchased \$10,000 land, paying \$7,000 in cash and signing a two-year note payable for the rest..

Identify & Classify the Accounts

(a) Land (asset)

(b) Cash (asset)

(c) Notes Payable (liability)

Determine the Direction of the Effect

(a) Land + 10,000 (inc.)

(b) Cash - 7,000 (dec.)

(c) Notes Payable + 3,000 (inc.)

Verify the Accounting Equation

10,000 – 7,000

Assets (A)

=

3,000

Liabilities (L)

+

0

Equity (SE)

Exercise: ShineBrite Car Wash, Inc

Trans#	Description
1	Gray and a few friends invest \$50,000 to open ShineBrite Car Wash, and the business issues ordinary share capital to the shareholders.
2	ShineBrite purchases land for a new location and pays cash of \$40,000.
3	The business buys supplies on account, agreeing to pay \$3,700 within 30 days.
4	ShineBrite earns \$7,000 (cash) of service revenue by providing services for customers.
5	ShineBrite performs \$3,000 of service on account .
6	During the month, ShineBrite Car Wash pays \$2,700 for the following expenses: equipment rent, \$1,100; employee salaries, \$1,200; and utilities, \$400.
7	ShineBrite pays \$1,900 on account, which means to pay off an account payable.
8	Van Gray paid \$30,000 to remodel his home.
9	In transaction 5, ShineBrite performed services on account. The business now collects \$1,000. (We say that ShineBrite <i>collects the cash on account</i>)
10	ShineBrite sells some land for \$22,000. which is the same amount that ShineBrite paid for the land.
11	ShineBrite Car Wash declares a dividend and pays the shareholders \$2,100 cash.

ShineBrite Car Wash, Inc

Txn	Assets				=	Liabilities	+	Equity		Type of Equity Transaction
	Cash	Accounts receivable	Supplies	Land	Accounts payable	Share Capital	Retained Earnings			
1	50,000						50,000		issued share c	
2	-40,000			40,000						
3			3,700		3,700					
4	7,000							7,000	revenue	
5		3,000						3,000	revenue	
6	-1,100							-1,100	expense	
	-1,200							-1,200	expense	
	-400							-400	expense	
7	-1,900				-1,900					
9	1,000	-1,000								
10	22,000			-22,000						
11	-2,100							(2,100)	Dividends	
Bal	33,300	2,000	3,700	18,000	1,800		50,000	5,200		
\$57,000										

Statement of Cash Flows Data (rows 1-11)

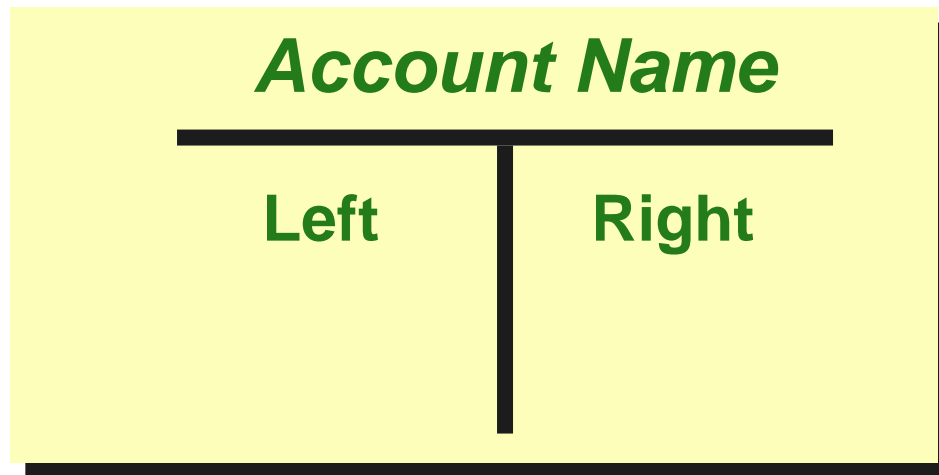
Income Statement Data (rows 4-6)

Statement of Changes in Equity Data (rows 4-6)

Balance Sheet Data (rows 1, 2, 3, 7, 9, 10, 11, Bal)

What is a T-Account?

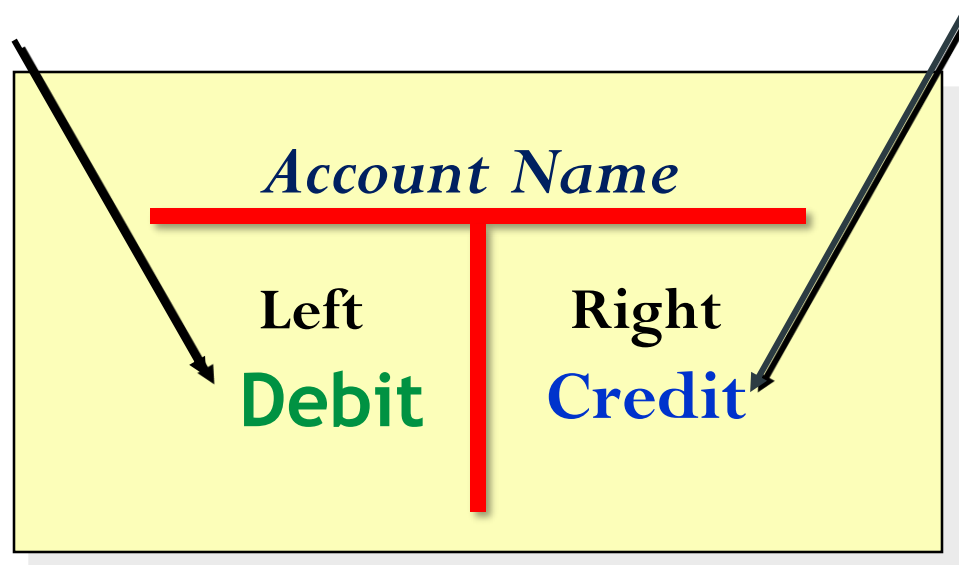
- ▶ A T-account is a *simplified version of an account*. This tool allows for summarization of journal entry effects on an account.
- ▶ Record of increases and decreases in a specific asset, liability, equity, revenue, or expense



What are Debit and Credit?

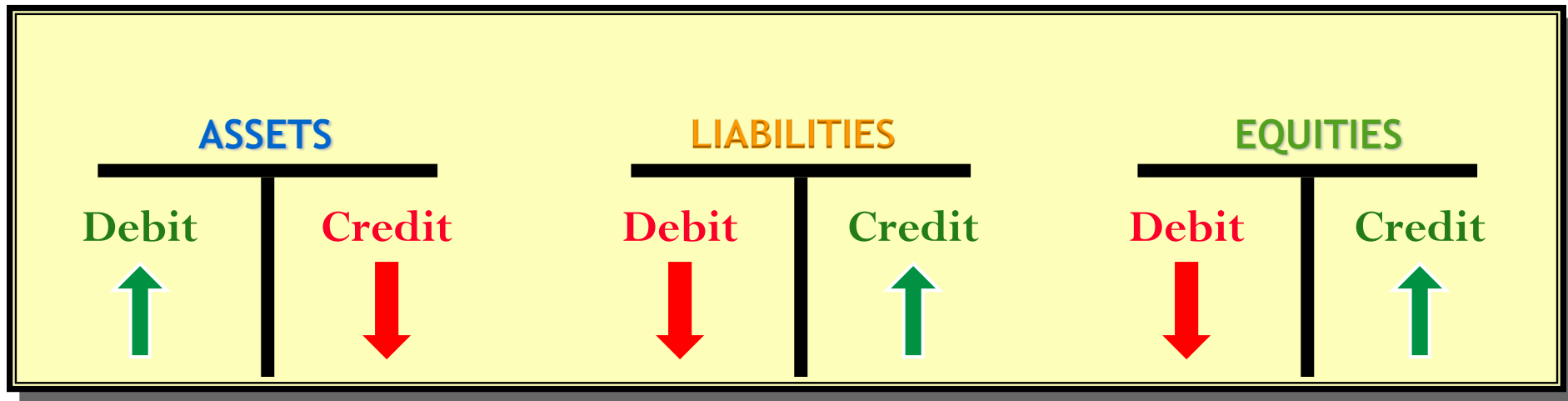
The **left** side of the T-account is always the **debit** side.

The **right** side of the T-account is always the **credit** side.



The Debit-Credit Framework

$$A = L + SE$$



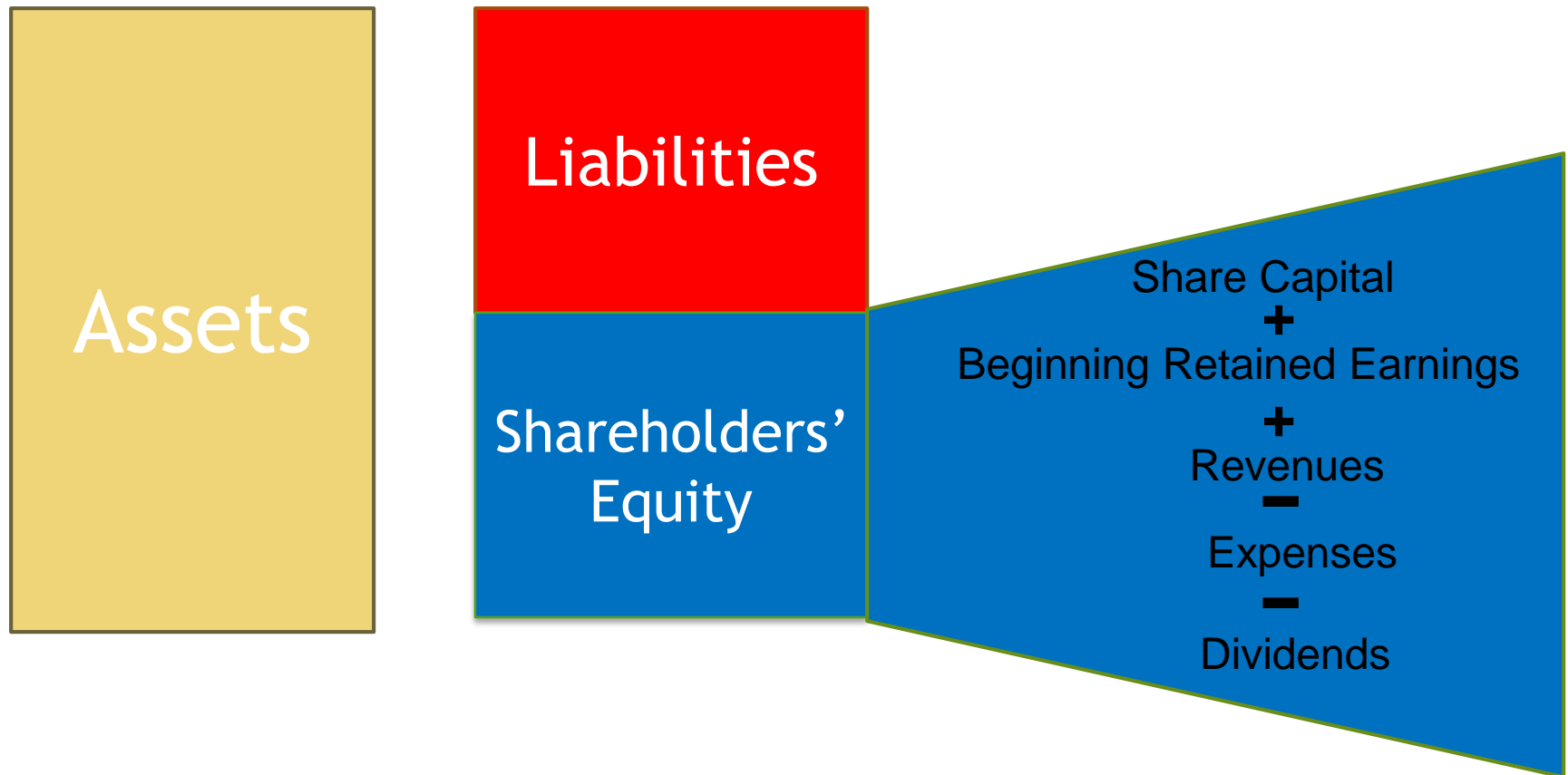
- Every transaction involves both a debit and credit.
- Total debits and credits for every transaction must be equal.

Additional Shareholders' Equity Accounts: Income and Expenses

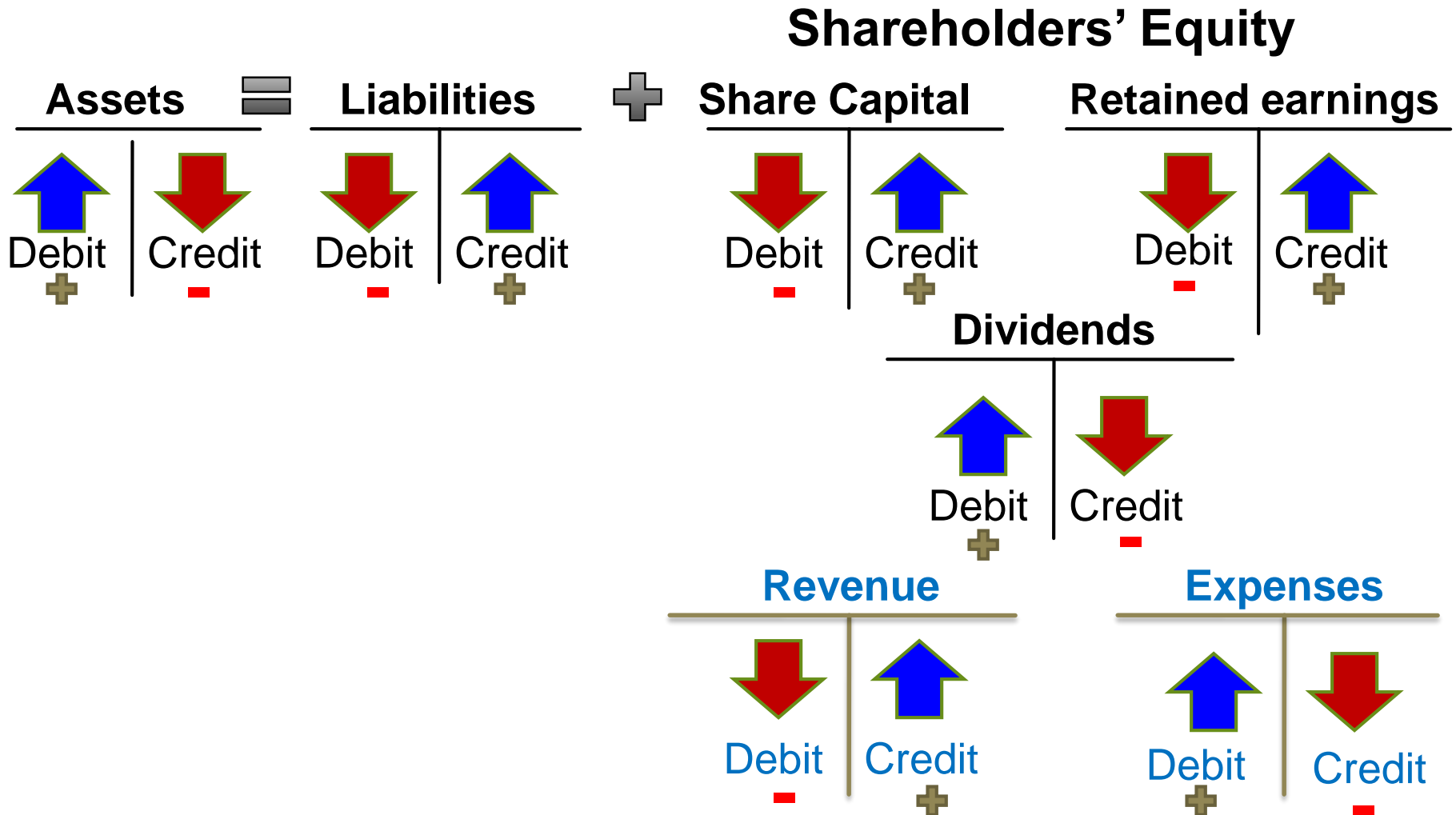
Two categories of income statement accounts:

- ▶ Income → increase shareholders' equity
 - result from delivering goods/services
- ▶ Expenses → decrease shareholders equity
 - cost of operating the business

Additional Shareholders' Equity Accounts: Revenues & Expenses



Rules of Debit and Credit



Learning Objective 2.4

Record (journalize and post) transactions in the books

The Journal

- ▶ Chronological record of transactions
- ▶ Three steps
 - Specify each account affected by the transaction and classify by type
 - Determine if each account is increased or decreased
 - Use debit credit rules
 - Record in journal with amount (called an entry or journal entry)

Journal Entries

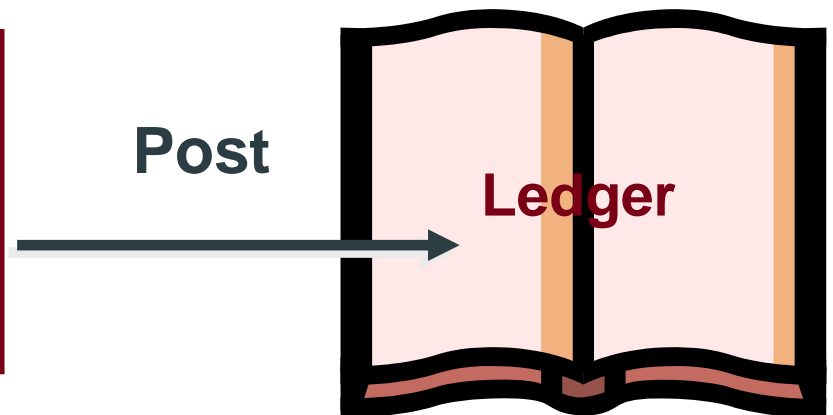
JOURNAL			
Date	Accounts and explanation	Debit	Credit
May 1	Cash	50,000	
	Share Capital		50,000
	<i>Issued ordinary shares</i>		

- Include: Date (reference), Account, Debit & Credit Amount
- Debits listed first, credits indented and listed next
- Debit = Credit

Posting

- ▶ Ledger is a grouping of all the T-accounts, with their balance.
- ▶ After journal entries are prepared, the accountant posts (transfers) the dollar amounts to each account in the ledger that was affected by the transaction

GENERAL JOURNAL					Page 1
Date	Account Titles and Explanation	Posted Ref.	Debit	Credit	
May 1	Cash		50,000		
	Share Capital			50,000	



Flow of Accounting Data

Transaction occurs

Analyze Transaction

Journalized Transaction (Journal Entry)

Amounts posted to the ledger (Post)

Examples

- (a) Papa John's issues \$2,000 of additional common stock to new investors for cash.

GENERAL JOURNAL

Date	Account Titles and Explanation	Posted Ref.	Debit	Credit
	Cash (+A)		2,000	
	Contributed Capital (+SE)			2,000

Cash	
Beg. Bal.	13,000
(a)	2,000
	<u>15,000</u>

Contributed Capital	
	64,000 Beg. Bal.
	2,000 (a)
	<u>66,000</u>

Examples

- (c) Papa John's purchases \$10,000 of new equipment, paying \$2,000 in cash and signing a two-year note payable for the rest.

GENERAL JOURNAL				
Date	Account Titles and Explanation	Posted Ref.	Debit	Credit
	Equipment (+A)		10,000	
	Cash (-A)			2,000
	Notes Payable (+L)			8,000

Let's see how to post this entry . . .

Examples

- (c) Papa John's purchases \$10,000 of new equipment, paying \$2,000 in cash and signing a two-year note payable for the rest.

Equipment	
Beg. Bal.	198,000
(c)	10,000
<hr/>	
	208,000

Cash	
Beg. Bal.	13,000
(a)	2,000
(b)	6,000
	2,000 (c)
<hr/>	
	19,000

Notes Payable	
	96,000 Beg. Bal.
	6,000 (b)
	8,000 (c)
<hr/>	
	110,000

Examples

- (d) Papa John's lends \$3,000 to new franchisees who sign five-year notes agreeing to repay the loan.

GENERAL JOURNAL				
Date	Account Titles and Explanation	Posted Ref.	Debit	Credit
	Notes Receivable (+A)		3,000	
	Cash (-A)			3,000

Notes Receivable	
Beg. Bal.	12,000
(d)	3,000
	15,000

Cash	
Beg. Bal.	13,000
(a)	2,000 (c)
(b)	6,000
	3,000 (d)
	16,000

Examples

- (e) Papa John's purchases \$1,000 of stock in other companies as an investment

GENERAL JOURNAL				
Date	Account Titles and Explanation	Posted Ref.	Debit	Credit
	Investment (+A)		1,000	
	Cash (-A)			1,000

Investments	
Beg. Bal.	1,000
(e)	1,000
	2,000

Cash	
Beg. Bal.	13,000
(a)	2,000 (c)
(b)	3,000 (d)
	1,000 (e)
	15,000

Examples

- (f) Papa John's board of directors declares and will pay \$3,000 in cash dividends to shareholders next month

GENERAL JOURNAL				
Date	Account Titles and Explanation	Posted Ref.	Debit	Credit
	Retained Earnings (-SE)		3,000	
	Dividends Payable (+L)			3,000

Retained Earnings	
	84,000 Beg. Bal.
(f) 3,000	
	81,000

Dividends Payable	
	- Beg. Bal.
3,000 (f)	
	3,000

Learning Objective 2.5

Construct and use a trial balance

Construct and Use a Trial Balance

▶ Trial Balance

- Lists all accounts with their balances
- Assets listed first, then liabilities and shareholders' equity
- Shows that debits equal credits
- Usually prepared at the end of the period
- Facilitates preparation of the financial statements

Example

Matrix, Inc.		
Trial Balance		
At December 31, 2014		
<u>Description</u>	<u>Debit</u>	<u>Credit</u>
Cash	\$ 3,900	
Accounts receivable	4,985	
Inventory	3,300	
Equipment	4,800	
Accumulated depreciation - Equip.		\$ 1,440
Furniture and fixtures	6,600	
Accumulated depreciation - furn. & fix.		2,200
Accounts payable		2,985
Notes payable		4,000
Common stock		10,000
Retained earnings, 1/1/2014		1,760
Sales revenue		35,000
Cost of goods sold	27,500	
Operating expenses	6,300	
Totals	<u>\$ 57,385</u>	<u>\$ 57,385</u>

Analyzing Accounts (1 of 3)

Suppose RedLotus' began May with cash of \$33,000. During May, RedLotus' received cash of \$8,000 and ended the month with a cash balance of \$35,000.

You can compute total cash payments by analyzing RedLotus' Cash account:

		Cash	
Beginning balance	33,000		
Cash receipts	8,000	Cash payments	$x = 6,000$
Ending balance	35,000		

Analyzing Accounts (2 of 3)

You can compute either sales on account or cash collections on account by analyzing the Accounts Receivable account (using assumed amounts):

Accounts Receivable		
Beginning balance	6,000	
Sales on account	10,000	Collections from receivables $x = 11,000$
Ending balance	5,000	

Analyzing Accounts (3 of 3)

You can determine how much you paid on account by analyzing Accounts Payable (using assumed amounts):

Accounts Payable	
	Beginning balance 9,000
Payments on creditors $x = 4,000$	Purchases on account 6,000
	Ending balance 11,000

Normal Balances of Accounts

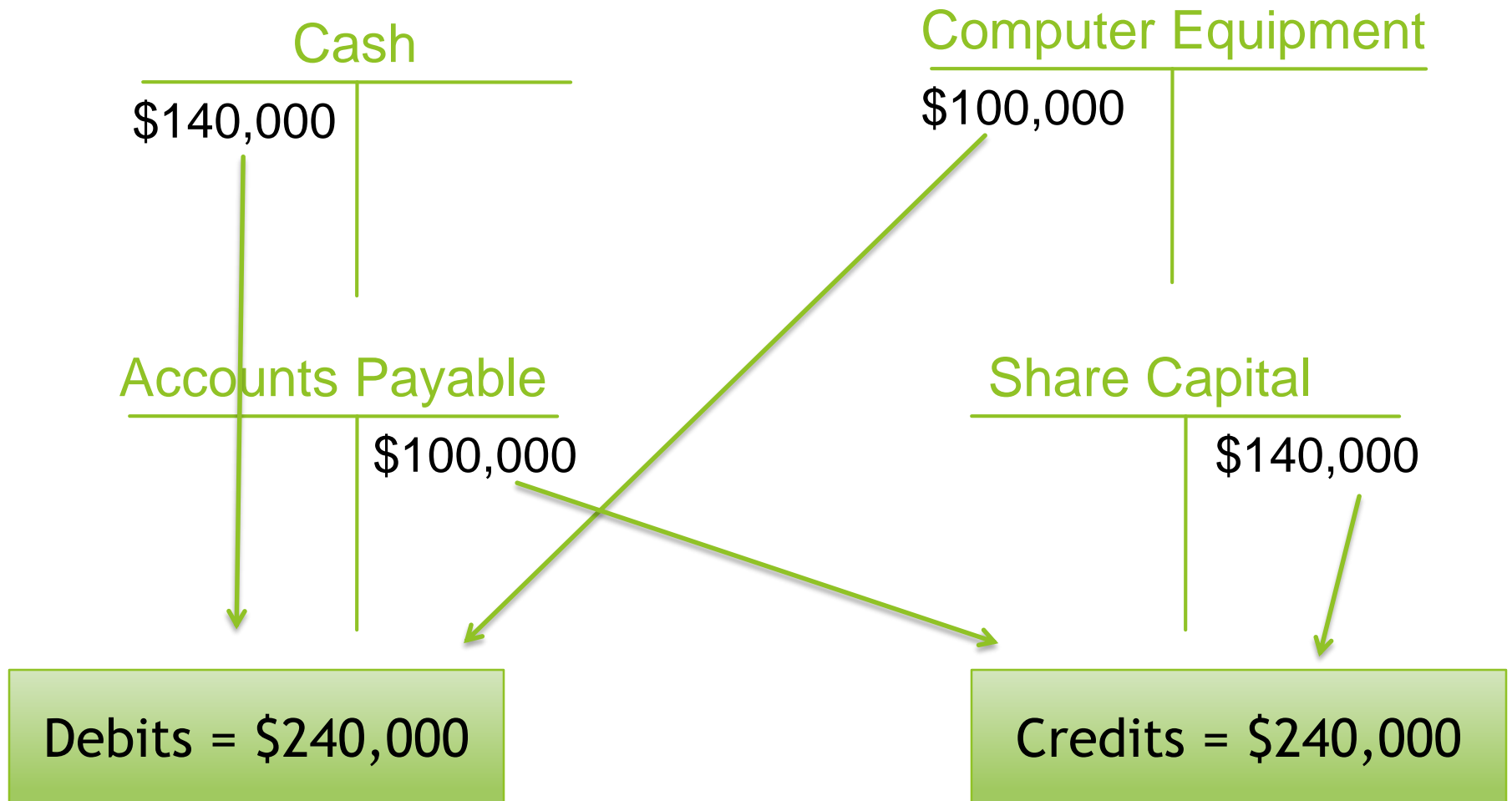
Take 1 minute to fill out what is the normal balance of each type of account

Assets	Debit	
Liabilities		Credit
Shareholders' Equity overall		Credit
Share capital		Credit
Retained earnings		Credit
Dividends	Debit	
Revenues		Credit
Expenses	Debit	

Exercise 1

- ▶ Seventh Investments, Inc., began by issuing shares for cash of \$140,000. The company immediately purchased computer equipment on account for \$100,000.
- 1. Set up the following T-accounts of Seventh Investments, Inc.---Cash, Computer equipment, Accounts payable, Share capital.
- 2. Record the first two transactions of the business directly in the T-accounts without using a journal.
- 3. Show that total debits equal total credits.

Exercise 1



Exercise 2

- ▶ Business transactions for Nike, Inc. for a recent year
 - ▶ The amounts are rounded to millions of dollars (MM)
- ▶ **Perform transaction analysis**
 - ▶ (i) Identify & Classify the Accounts
 - ▶ (ii) Determine the Direction of the Effect
 - ▶ (iii) Verify the accounting equation
- ▶ **Prepare journal entries, checking that debits equal credits**

Exercise

- ▶ (a) Purchased additional buildings for \$ 182.0 and equipment for \$21.9. paid \$48.1 in cash and signed a long-term note for the rest

Assets		=	Liabilities		+	Stockholders' Equity	
Buildings	+ 182.0		Long-term note payable	+ 155.8			
Equipment	+ 21.9						
Cash	- 48.1						

Account Title	Debit	Credit
Buildings (+A)	182.0	
Equipment (+A)	21.9	
Cash (-A)		48.1
Long-term note payable (+L)		155.8
	203.9	203.9

Exercise

- ▶ (b) Paid \$ 179.2 of dividends which were declared last year

Assets		=	Liabilities		+	Stockholders' Equity	
Cash	-179.2		Dividends payable	- 179.2			

Account Title	Debit	Credit
Dividends Payable (-L)	179.2	
Cash (-A)		179.2

Exercise

- (c) Purchased additional short-term investments for \$ 400.8 cash

Assets		=	Liabilities	+	Stockholders' Equity
Short-term investments	+ 400.8				
Cash	- 400.8				

Account Title	Debit	Credit
Short-term investments (+A)	400.8	
Cash (-A)		400.8

Exercise

- (d) Sold \$ 1.4 in short-term investments in other companies for \$ 1.4 cash

Assets		=	Liabilities	+	Stockholders' Equity
Cash	+ 1.4				
Short-term investments	-1.4				

Account Title	Debit	Credit
Cash (+A)	1.4	
Short-term investments (-A)		1.4

Take-Aways of Chapter 2

- ▶ What are the transactions?
- ▶ What are the procedures of transaction analysis?
- ▶ Journal entries and T-accounts
- ▶ Debits and Credits