

## کسب اطلاعات فنی



**Assets**

=

**Liabilities**

+

**Capital**

- آشنایی با لغات و اصطلاحات تخصصی حسابداری:
- مربوط به معادله اصلی حسابداری و سیستم ثبت دو طرفه
  - صورت‌های مالی
  - خرید و فروش در مؤسسات بازرگانی
  - عوامل بهای تمام شده در مؤسسات تولیدی
  - دارایی‌های ثابت و استهلاک آنها

### آشنایی با لغات و اصطلاحات تخصصی حسابداری

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# Chapter 1

## Accounting Equation

### Nature of Accounting

An understanding of the principles of book - keeping and accounting is essential for anyone Who is interested in a successful career in business. The purpose of bookkeeping and accounting is to provide information concerning the financial affairs of a business. This information is needed by owners, managers, creditors, and Governmental agencies.

**Accounting:** An information system that measures, processes, and communicates financial information about an identifiable economic entity

**Bookkeeping:** The process of recording financial transactions and keeping financial records.

### Basic Elements of Accounting Equation

The financial condition or position of a business enterprise is represented by the relationship of assets to liabilities and Capital

#### Assets

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

Economic resources owned by a business that are expected to benefit future operations.

#### Liabilities

Present obligations of a business to pay cash, transfer assets, or provide services to other entities in the future.

## Capital

The residual interest in the assets of a business entity that remains after deducting the entity's liabilities. Also called residual equity.

These three basic elements are connected by a fundamental relationship called the **accounting equation**. This equation expresses the equality of the assets on one side with the claims of the creditors and owners on the other side:

### REMEMBER

The accounting equation of  
 $\text{Assets} = \text{Liabilities} + \text{Capital}$   
Should Balance after every transaction.

### Revenues:

The increases in Capital from selling goods, rendering services, or performing other business activities.

### Expenses:

Decreases in Capital resulting from the cost of goods and services used up in course of earning revenues.

### Owner's investments:

The assets that the owner puts into the business.

### Owner's withdrawals:

The assets that the owner takes out of the business.

These elements comprise the basic accounting equation, which, in expanded form, is as follows:

$$\text{Assets} = \text{Liabilities} + \text{Capital} + \text{Revenues} - \text{Expenses} + \text{Owner's investments} - \text{Owner's withdrawals}$$

### During the month of January, Mr. Nader's Institute

- 1 Invested \$5,000 to open his law practice
- 2 Bought office supplies on account, \$500.
- 3 Received \$2,000 in fees earned during the month.
- 4 Paid \$100 on the account for the office supplies.
- 5 Withdrew \$500 for personal use.

These transactions should be analyzed and recorded as follows:

Assets = Liabilities + Capital		
Cash		Capital
❶ + \$5,000	=	+ \$ 5,000
Supplies		Accounts Payable
❷ + \$500	=	+ \$500
Cash		Fees Income
❸ + \$2,000	=	+ \$2,000
Cash		Accounts payable
❹ - \$100	=	-\$100
Cash		Capital
❺ - \$500	=	-\$500

Notice that for every transaction, two entries are made. After every transaction, the accounting equation remains balanced.

## Exercise 1

- ❶ The accounting equation is ..... = ..... + .....
- ❷ Items owned by a business that have monetary value are .....
- ❸ ..... is the interest of the owners in a business.
- ❹ Money owed to an outsider is a (n) .....
- ❺ The difference between assets and liabilities is .....
- ❻ An investment in the business increases..... and .....
- ❼ To purchase on account is to create a.....

## Exercise 2

Tell whether each of the following accounts is an asset , a liability , a revenue a capital , an expense, or none of these .

Accounts payable  
Service fees income  
Prepaid insurance  
Cash  
Telephone expense  
Owner's capital  
Rent expense  
Equipment

Salaries expense  
Machinery  
Notes payable  
Supplies  
Accounts receivable  
Unearned service fees  
Withdrawals  
Retained earning

## Keywords

accounting	حسابداری	assets	دارایی‌ها
capital	سرمایه	benefit	منفعت
withdrawals	برداشت	obligations	بدهی - تعهد
cost	بها	cash	وجه نقد
goods	کالا	revenue	درآمد
expenses	هزینه	investments	سرمایه‌گذاری
operations	عملیات	liabilities	بدهی‌ها
book - keeping	دفتر اداری	financial	مالی
owners	مالکان	equation	معادله
managers	مدیران	creditors	بستانکاران
governmenta	دولتی	transactions	رویداد مالی
economic	اقتصادی	supplies	ملزومات
accounts payable	حساب‌های پرداختنی	fees income	درآمد حق الزحمه
purchase	خرید	monetary value	ارزش پولی
retained earnings	سود انباشته	prepaid insurance	پیش پرداخت بیمه
accounts receivable	حساب‌های دریافتنی		

## Chapter 2

### The Double - Entry system DEBITS AND CREDITS

#### The Account

An account may be defined as a record of the increases, decreases ,and balances in an individual item of asset ,liability, capital , revenue, or expense.

The most simple form of the account is known as the "T" account because it resembles the letter "T". The account has three parts:

- 1 the name of the account and the account number
- 2 the debit side (left side),and
- 3 the credit side (right side).

The increases are entered on one side, the decreases on the other. The balance (the excess of the total of one side over the total of the other) is inserted near the last figure on the side with the larger amount.

#### Debits and credits

When an amount is entered on the left side of an account ,it is a debit ,and the account is said to be debited. When an amount is entered on the right side ,it is a credit, and the account is said to be credited. The abbreviations for debit and credit are Dr. and Cr. ,respectively.

Whether an increase in a given item is credited or debited depends on the category of the item. By convention, asset and expense increases are recorded as debits, whereas Liability, capital, and revenue increases are recorded as credits. Asset and expenses decreases are recorded as credit, whereas Liability, capital, and income decreases are recorded as debits; the following tables summarize the rule.

Assets and Expenses		Liabilities, capital and Revenues	
Dr.	Cr.	Dr.	Cr.
+	-	-	+
(Increases)	(Decreases)	(Decreases)	(Increases)

An account has a debit balance when the sum of its debits exceeds The sum of its credits; it has a credit balance when the sum of the credits is the greater . The rules of debit and credit are designed so that every transaction is recorded by equal amounts of debits and credits. The foundation of this equality is the accounting equation. This system is often called **double \_ entry accounting**.

**Important!**

For every journal entry, debits must equal credits.

**General Journal**

In accounting system, each business transaction is initially recorded in a book known as journal. The journal is sometimes called the book of original entry since it is an accounting record in which transactions are first recorded.

Many different types of journals may be used by businesses. The number and types of journals needed by a specific business enterprise is based on the nature of operations and the volume of transactions in the enterprise. The simple type of journal, which has only two money columns, is called a general journal and it may be used for all types of transactions. A piece of a page from a general journal is shown below.

**General Journal**

No.	Date		Description	LP	Amount	
	M	D			Dr.	Cr.
1	July		Cash	1	10.000	
			Capital	45		10.000
			To record investment			

**The Ledger**

The complete set of accounts for a business entry is called a ledger. It is The "reference book" of the accounting system and is used to classify and Summarize-transactions and to prepare data for financial statements. It is also a valuable source of information for managerial purposes, giving, for example, the amount of sales for the period or the cash balance at the end of the period.

**Trial Balance**

A trial balance is a two - column table listing the names and balances of all the accounts in the order in which they appear in the ledger. Debit balances are listed in the left - hand column and credit balances in the right-hand column. The purpose of preparing a trial balance is, in fact, to ensure that the totals of the accounts with debit balances are equal to the totals of the accounts with credit balances. Therefore, the totals for the two columns of the trial balance should agree. Trial balance is a base to prepare financial statements.

### Exercise 1

- 1 To classify and summarize a single item of an account group, we use a form called an - - - - - .
- 2 The left side of the account is known as the - - - - - .while the right side of the account is known as the - - - - - .
- 3 Expenses are debited because they decrease - - - - - .
- 4 The schedule showing the balance of each account at the end of the period is known as the - - - - - .

### Exercise 2

**Indicate whether the following increases and decreases represent a debit or credit for each particular account.**

- (a) Capital is increased
- (b) Cash is decreased
- (c) Accounts Payable is increased
- (d) Rent expense is increased
- (e) Equipment is increased
- (f) Fees income is increased
- (g) Capital is decreased through drawing

### Exercise 3

**Rearrange the following list of accounts and produce a trial balance.**

Accounts Payable	\$9.000	General expense	1.000
Accounts Receivable	14.000	Notes Payable	11.000
Capital	32.000	Rent expense	5.000
Cash	20.000	Salaries expense	8.000
Drawing	4.000	Supplies	6.000
Equipment	18.000	Supplies expense	2.000
Fees income	26.000		

## Exercise 4

Presented below are the accounts balances of Tehran Institute at the end of December 2018 Prepare a trial balance.

Accounts payable	\$ 7.000	Salaries expense	\$5.000
Service fees income	15.000	Machinery	10.000
Prepaid insurance	2.000	Notes payable	2.000
Cash	6.000	Supplies	500
Telephone expense	2.500	Accounts receivable	12.000
Owner's capital	?	Unearned service fees	1.000
Rent expense	1.800	Withdrawals	1.200

## Keywords

credits	بستانکار - سمت ستانکار	debits	بدهکار - سمت بدهکار
account	حساب	balance	مانده یک حساب
equal	برابر - مساوی	resemble	شباهت داشتن
figure	رقم	abbreviation	اختصار
individual	شخصی - هریک	journal entry	ثبت روزنامه
general journal	دفتر روزنامه عمومی	sale	فروش
ledger	دفتر کل	financial statements	صورت‌های مالی
valuable	با ارزش	source	منبع
description	شرح	trial balance	تراز آزمایشی
schedule	جدول - نمودار	equipment	تجهیزات
unearned service fees	پیش دریافت درآمد خدمات	drawing	برداشت
double -entry system	سیستم ثبت دو طرفه	equality	برابری

## Chapter 3

The main part of financial reporting is a set of accounting reports called financial statements. Financial statements summarize in a few pages the financial resources, obligations, profitability, and cash flows of a business. A complete set of financial statements includes balance sheet, the income statement, the statement of owner's equity, and the statement of cash flows. Several pages of notes, containing additional information, are also accompanied to the statements.

### Income statement

An income statement shows the result of operations of a business for a given period of time. To determine net income for the period, a business must measure revenues earned and expenses incurred during that period. Thus, it may be stated that net income equals revenues minus expenses. In the case that expenses exceed revenues, the result would be a net loss.

$$\text{Net income (loss)} = \text{revenues} - \text{expenses}$$

The following income statement shows the net income from the operation of IRAN Servicing Institute for the month of July:

<b>IRAN Servicing Institute</b>		
<b>Income Statement</b>		
<b>For the month ended July 31,2018</b>		
<b>Revenues:</b>		
Fees earned		3.500
<b>Expenses:</b>		
Rent	\$720	
Salaries	450	
Utilities	250	
Cleaning	180	
Telephone	<u>100</u>	
Total expenses		(1.700)
<b>Net income</b>	<b>1.800</b>	

## Balance sheet

The financial statement that shows the assets, liabilities, and owners equity of a business at a point in time . Also called a statement of financial position .

**IRAN Servicing Institute**  
**Balance Sheet**  
**July 31, 2018**

<b>Assets:</b>		<b>liabilities &amp; Owners equity</b>	
Cash	\$10.500	Notes payable	700
Accounts receivable	2.000	Accounts payable	3.000
Equipment	<u>3.000</u>	Capital	<u>11.800</u>
Total assets	15.500	Total	15.500

The three general classes of the items appear on the balance sheet are assets, liabilities, and owners equity. These are the key elements of every balance sheet. However, on the balance sheet of corporations, they are usually divided into several sub classifications as below:

<b>Assets</b>	<b>Current assets</b>	<b>Liabilities</b>	<b>Current liabilities</b>
	<b>Long – term investments</b>		<b>Long – term liabilities</b>
	<b>Tangible fixed assets</b>	<b>Owners equity</b>	<b>Capital stock</b>
	<b>Intangible assets</b>		<b>Retained earnings</b>
	<b>Other assets</b>		

### Exercise 1

- 1 Another term for an accounting period is an .....
- 2 The statement that shows net income for the period is known as the ..... statement.
- 3 Two groups of items that make up the income statement are ..... and .....
- 4 Assets must equal .....
- 5 Expense and income must be matched in the same .....

## Exercise 2

Presented below are the accounts balances of Tehran Institute at the end of December 2018  
Prepare an Income Statement and Balance Sheet

Accounts payable	\$ 7.000	Salaries expense	\$5.000
Service fees income	15.000	Machinery	10.000
Prepaid insurance	2.000	Notes payable	2.000
Cash	6.000	Supplies	500
Telephone expense	2.500	Accounts receivable	12.000
Owner's capital	?	Unearned service fees	1.000
Rent expense	1.800	Withdrawals	1.200

## Keywords

resources	منابع	profitability	سودآوری
notes	یادداشت‌ها	balance sheet	ترازنامه
cash flows	جریان وجوه نقد	salaries	حقوق
rent	اجاره	capital stock	سرمایه سهام
utilities	هزینه‌های عمومی	position	وضعیت
net income	سود خالص	accompanied	همراه - ضمیمه
tangible fixed assets	دارایی‌های ثابت مشهود	income statement	صورت سود و زیان
long-term investments	سرمایه‌گذاری بلندمدت	current assets	دارایی جاری
statement of owner's equity	صورت حقوق مالکان	intangible assets	دارایی‌های نامشهود

## Chapter 4

### Merchandising Enterprise

There are three types of business enterprises that make up the business society

**1 Servicing: Companies and individuals that yield a service to consumer, such as lawyers, physician, airlines and etc.**

**2 Manufacturing: Companies that convert raw materials into finished Products, such as housing construction companies and lumber mills.**

**3 Merchandising: Companies that engage in buying and selling finished goods such as department stores and retail establishment.**

This chapter examines the third type, merchandising companies.

Merchandising (trading) businesses are those whose income derives largely from buying and selling goods rather than from rendering services.

Inventory represents the value of the accounting period. The beginning balance is the same amount as the ending balance of the previous period, so unsold merchandising must be counted and priced and its total recorded in the ledger as Ending Inventory. The amount of this inventory is shown as an asset in the balance sheet.

#### **Purchases**

When the periodic inventory system is used to account for inventory, purchases of merchandise Inventory account but rather is debited to separate account known as purchases. This account includes only merchandise bought for resale. Other types of purchases (machinery, furniture, trucks, etc.) that are to be used in the business, rather than sold, are debited to the particular asset account involved and appear in the balance sheet.

**!Note**

**The amount of goods sold during the period is shown as cost of goods sold in the income statement.**

**Sales Revenue**

Revenue includes gross income from the sale of products or services. It may be designated as sales, income from fees, and so on, to indicate gross income. The gross amount is reduced by sales returns and by sales discounts to arrive at net sales.

**Cost of Goods Sold**

The inventory of a merchandising business consists of goods on hand at the end of accounting period. The beginning inventory appears in the income statement and is added to purchase to arrive at the cost of goods available for sale. Ending inventory is deducted from the cost of goods available for sale to arrive at cost of goods sold



**Operating expenses**

Operating expenses includes all expenses or resources consumed in obtaining revenue. Operating expenses are further divided into two groups. Selling expenses are related to the promotion and sale of the company’s product or service. Generally, one individual is held accountable for this function, and his or her performance is measured by the results in increasing sales and maintaining selling expenses at an established level. General and administrative expenses are those related to the overall activities of business, such as the salaries of president and other officers.

**ABC Company**  
**Income Statement**  
**For the Year Ended December 31, 19xx**

Net Sales	289656
Less: Cost of Goods Sold	<u>(181260)</u>
Gross Profit	108396
Less: Operating Expenses	
Selling Expenses	54780
General and Administrative Expenses	34504
Total Operating Expenses	<u>(89284)</u>
Income from Operations	19112
Other Revenues and Expenses:	
Interest Revenue	1400
Less: Interest Expense	<u>(2631)</u>
Excess of Other Expenses over Other Revenues	<u>(1231)</u>
Net Income	<u>17881</u>

### Exercise 1

- 1 Merchandise Inventory (ending) appears as an ..... in the ..... (financial statement).
- 2 The only account figure that appears on both the income statement and balance sheet is.....
- 3 The beginning balance of Merchandise Inventory would be the same amount as the ending balance of the ..... period.
- 4 The account with zero balance at the beginning of the year would be those involving .....and .....

### Exercise 2

The Mehdi's Company purchased merchandise costing \$150,000. What is the cost of goods sold under each assumption below?

Beginning Inventory	Ending Inventory
100,000	60,000
75,000	50,000
50,000	30,000
0	10,000

### Exercise 3

Compute the cost of goods sold from the following information: Beginning Inventory, \$30,000; Purchases, \$70,000; Purchases Returns, \$3,000; Ending Inventory, \$34,000.

### Exercise 4

Prepare an income statement based on the following data.

- (a) Merchandise Inventory, Jan. 1, 2000, \$30,000
- (b) Merchandise Inventory, Dec. 31, 2000, \$24,000
- (c) Purchases, \$66,000
- (d) Sales Income, \$103,000
- (e) Purchase Returns, \$2,000
- (f) Total expenses, \$27,900

## Exercise 5

Presented below are some of the accounts balances of XYZ Company at the end of December 2018 . Fill in the blank with this information

In 000 dollars

Sales revenue	98
Purchases	32
Freight - in	2.5
Sales returns	3.5
Sales discounts	4.1
Purchases discounts	1.3
Beginning inventory	8
Ending inventory	11
Sellers wages	15
Store rents	10
Depreciation	6
General expenses	7
Delivery charges	3
Other expenses	1.5

- 1 Net sales is ..... dollars
- 2 cost of goods purchased is .....dollars
- 3 cost of goods sold is ..... dollars
- 4 operating expenses is.....dollars
- 5 Gross profit is ..... dollars
- 6 net operating income is.....dollars

## Keywords

establishment	تأسیس - استقرار	enterprises	مؤسسه‌ها - واحدهای تجاری
servicing	خدماتی	manufacturing	تولیدی
merchandising	بازرگانی	society	جامعه
consumer	مصرف‌کننده	convert	تبدیل کردن
raw	خام	materials	مواد
construction	ساخت	lumber	چوب بری
engage	مشغول بودن	retail	خرده‌فروشی
derives	گرفتن - استخراج کردن	particular	مخصوص
selling	فروش	inventory	موجودی
resale	فروش مجدد	furniture	اثاثیه
trucks	کامیون‌ها	delivery charges	هزینه‌های تحویل کالا
cost of goods sold	بهای تمام شده کالای فروش رفته	sales discounts	تخفیفات فروش
products	محصولات	services	خدمات
reduced	کاستن	sales returns	برگشت از فروش
gross income	سود ناخالص	deducted	کم کردن - کسر کردن
officers	متصدیان	accountable	پاسخگو - مسئول
function	عمل - اقدام	performance	عملکرد - اجرا
administrative	اداری	president	رئیس - مدیر شرکت
operating expenses	هزینه‌های عملیاتی	profit	سود - انتفاع - منفعت
deprecations	استهلاک	freight-in	حمل به داخل
compute	محاسبه کردن	assumption	فرضیه - فرض

## Chapter 5

### Manufacturing Enterprises

Manufacturing companies purchase raw materials and convert these materials into finished goods through the process of production. The conversion from raw materials to finished goods results from utilizing a combination of labor and machinery. Thus, manufacturing costs are often divided into three broad categories: direct materials, direct labor, and manufacturing overhead.

**Direct materials** are raw materials and component parts used in production whose costs are directly traceable to the products manufactured.

**Direct labors** are wages and other payroll costs of employees whose efforts are directly traceable to the products they manufacture, either hand or with machinery.

**Manufacturing overhead** is a catchall classification, which includes all manufacturing costs other than the cost of direct materials and direct labor. Examples include factory utilities, supervisor's salaries, equipment repairs, and depreciation of machinery.

Sum of the first two items (i. e., direct material and direct labor) is called prime costs. Conversion costs are costs of converting raw materials into finished product and include direct labor and manufacturing overhead.

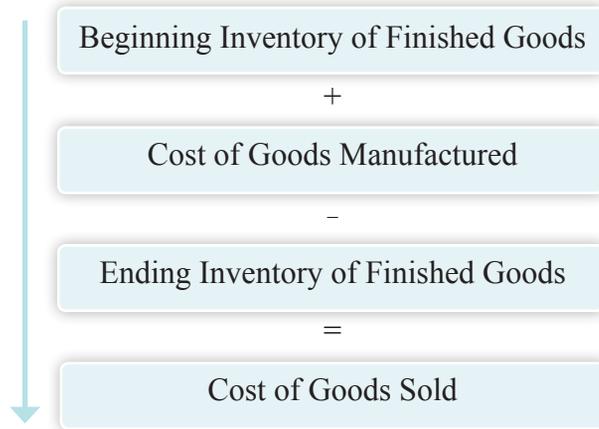
Manufacturers often maintain a perpetual inventory system for three different types of inventories due to different physical forms of products as they progress from its raw to finished state. Inventory accounts that manufacturers maintain are:

1 **Raw materials inventories** are materials on hand and available for use in the manufacturing process.

2 **Work - in - process inventories** are goods completed partially upon which manufacturing activities have been started but not yet completed.

3 **Finished goods inventories** are completed products that are not sold until the end of the period. So, they are available for sale to customers.

All three of these inventory accounts are classified on the balance sheet as current assets in the order of their position in the manufacturing process.



<b>SONY Manufacturing Inc.</b> <b>Schedule of the Cost of Goods Sold</b> <b>For the Year Then Ended December 31 , 2018</b>		
Raw materials beginning inventory	\$2.000	
Raw materials purchased	<u>13.000</u>	
Materials available for use	<u>15000</u>	
Less : Ending materials inventory	<u>3.000</u>	
Direct materials used	<b>12.000</b>	
Direct labor	<b>13.000</b>	
Factory overhead	<u><b>15.000</b></u>	
<b>Total manufacturing cost</b>		<b>\$ 40.000</b>
Add: beginning work _ in _ process inventory		<u>5.000</u>
Goods available for manufacturing		45.000
Less: ending work _ in _ process inventory		<u>3.000</u>
<b>Cost of finished goods manufactured</b>		<b>42.000</b>
Add: beginning finished goods inventory		<u>8.000</u>
Cost of finished goods available for sale		50.000
Less: ending finished goods inventory		<u>5.000</u>
<b>Cost of finished goods sold</b>		<b>\$ 45.000</b>

## Exercise 1

- 1 Prime costs = ..... + .....
- 2 Conversion costs = ..... + .....
- 3 Manufacturing Costs = ..... + ..... + .....
- 4 All three of inventory accounts are classified on the balance sheet as..... Assets.

## Exercise 2

Fill in the blanks with the following information.

In the X company prime costs equal with conversion costs, which one of them is equal to 21000. Overhead application rate is 75% of the direct labor.

Direct material? ..... Direct labor? .....

Manufacturing overhead? ..... Product costs?.....

## Exercise 3

- 1 Materials purchased are \$ 200, Raw materials beginning inventory is \$ 25, and ending materials inventory is \$ 40. Assuming that Conversion costs are \$ 500, what is the amount of materials available for use?
- 2 Using the data for question 1, what is the amount of direct materials used?
- 3 Using the data for question 1, what is the amount of manufacturing cost?

## Keywords

overhead	سربار	conversion	تبدیل
utilizing	به کارگیری	combination	ترکیب
labor	دستمزد	direct materials	مواد مستقیم
finished goods	کالای ساخته شده	component	اجزاء
catchall	گوناگون	wage	دستمزد
payroll	لیست حقوق	employees	کارکنان
effort	تلاش	traceable	قابل ردیابی
customer	مشتری	perpetual	دایمی
work-in-process	کار در جریان ساخت	partially	جزئی
prime costs	بهای اولیه	factory	کارخانه

## Chapter 6

### property , Plant and Equipment

Tangible assets that are relatively permanent and are needed for the production or sale of goods or services are termed property, plant, and equipment (PP&E), or fixed assets. These assets are not held for sale in the ordinary course of business. The broad group is usually separated into classes according to the physical characteristics of the items, for example land, buildings, machinery and equipment.

The cost of PP&E includes all expenditures necessary to put the asset into position and make it ready for use.

**Intangible assets:** Long - term assets that have no physical substance but have a value based on rights or advantages accruing to the owner.

**Depreciation:** The portion of the cost of a tangible long-term asset allocated to any one accounting period. Also called depreciation expense .

**Amortization:** The periodic allocation of the cost of an intangible asset to the periods it benefits.

**Depletion:** The exhaustion of a natural resource through mining, cutting, pumping, or other extraction, and the way in which the cost is allocated.

To determine depreciation expense for a fixed asset, we need the following information:

**Cost:** The total purchase price of the item, including its initial cost, transportation, installation and any other expense to make it ready for use.

**Estimated Useful Life:** The projected life during which the business expects the asset to function. This may be expressed in years, miles, units of production, or any other measure appropriate.

**Residual Value:** Also called scrap or salvage value, residual value is the estimated value of the asset when it is fully depreciated. When subtracted from the cost of the asset, it produces the “depreciable cost.”

There is one exception to the above considerations: land. This fixed asset is nondepreciable , it is usually carried on the books permanently at cost.

## Depreciation Methods

The depreciable amount of a fixed asset - that is, cost minus scrap value - may be written off in different ways. The amount may be spread evenly over the years, as in the straight-line method, or may be accelerated. Two accelerated methods are the double-declining balance and the sum-of-the-years-digits method. These methods provide for larger amounts of depreciation in the earlier years. Repairs, on the other hand, are generally lower in earlier years, so the total cost of depreciation and repairs should be about the same each year. The units-of-production method bases depreciation each period on the amount of output

### Straight-Line (SL)

The straight-line method is the simplest and most widely used depreciation method. Under this method, an equal portion of the cost of the asset is allocated to each period of use. The periodic charge is expressed as:

$$\text{Annual Depreciation Charge} = \frac{\text{Cost} - \text{scrap value}}{\text{Useful life (in years)}}$$

For example, if the cost of a machine is \$17,000, its scrap value is \$2,000 and its estimated useful life is 5 years, depreciation can be calculated as follows:

$$\frac{\$17,000 - \$2,000}{5 \text{ years}} = \$3,000 \text{ per year}$$

The entry to record the depreciation would be:

Depreciation Expense, Machinery	3,000	
Accumulated Depreciation, Machinery		3,000

**Declining-balance method:** An accelerated method of depreciation in which depreciation is computed by applying a fixed rate to the carrying value (the declining balance) of a tangible long-lived asset.

**Double-declining-balance method:** An accelerated method of depreciation in which a fixed rate equal to twice the straight-line percentage is applied to the carrying value of a tangible long-term asset.

### Units of Production (UOP)

Units of production depreciation are based on an assets usage. This can be expressed in:

- 1 Units produced
- 2 Hours consumed
- 3 Mileage driven

This method is used when an assets usage varies from year to year.

This depreciation method accurately reflects the depreciation expense for the asset because it is based on the number of units produced in each period. Depreciation per unit is computed in two steps:

$$\text{Depreciation per unit} = \frac{\text{Cost of asset} - \text{scrap value}}{\text{Total estimated units of output}}$$

$$\text{Annual depreciation expense} = \text{Units produced} \times \text{unit depreciation}$$

### Sum of the Years' Digits (SYD)

To determine depreciation expense under SYD, the asset's cost (minus scrap value) is multiplied by a fraction. The numerator of the fraction is the years remaining in the asset's life, but in reverse order. It changes each year. The denominator is the sum of all the digits making up the life of the asset. It remains constant.

For example, if a machine costs \$17,000, has a scrap value of \$2,000, and an estimated life of 5 years. The depreciable amount is

$$\$17,000 - \$2,000 = \$15,000$$

To find the fraction of this amount to be written off each year, proceed as follows: the numerator of the fraction for the first year would be 5 (years in reverse). The denominator of the fraction would be 15, the sum of the year's digits

$$(5 + 4 + 3 + 2 + 1 = 15)$$

To determine the depreciation for the first year, multiply \$15,000 by (5/15). The current year depreciation is \$5,000.

## Exercise 1

- 1 The market value of a fixed asset at the end of its service is known as a .....
- 2 The uniform distribution of depreciation over the life of the asset is known as the ..... method.
- 3 The ..... method is used to write off the asset based on a series of fractions.
- 4 The method that produces the largest amount of depreciation in the earlier years, then rapidly declines, is known as the ..... method.
- 5 When income produced by an asset is the same each year, the recommended method of depreciation is .....
- 6 When use rather than time is the key factor..... is the preferred method of depreciation.

## Exercise 2

Behzad Company acquired an asset on January 1, 2018, at a cost of \$38,000, with an estimated useful life of 8 years and a salvage value of \$2,000. What is the annual depreciation based on?

- (a) The straight - line depreciation method?
- (b) The double - declining - balance method?
- (c) The sum \_of \_ the - years' \_ digits method?

## Exercise 3

A machine was purchased for \$28,000 and had an estimated scrap value of \$4,000. What would the year - end entry be if the units \_ of \_ production method was used, and it had an estimated life of 32,000 hours? In the first year of operation, it used 7,200 hours

## Keywords

expenditures	مخارج	property	اموال - املاک
plant	ماشین آلات	equipment	تجهیزات
characteristics	ویژگی ها	land	زمین
building	ساختمان	permanent	دائمی
extraction	برون کشی - درآوردن	portion	سهم - قسمت
amortization	استهلاک (دارایی های نامشهود)	allocation	تسهیم - تخصیص
depletion-	استهلاک منابع طبیعی - تهی شدن	exhaustion	تهی سازی - مصرف (تا آخر)
natural	طبیعی	mining	استخراج از معدن
cutting	برداشت کردن	pumping	تلمبه زدن - تخلیه کردن
initial cost	هزینه اولیه	transportation	حمل و نقل
subtract	کاستن	measure	معیار - سنجش
appropriate	مقتضی - مناسب	salvage	اسقاط
scrap	قراضه - ضایعات	residual	باقیمانده
installation	نصب - تأسیس	written off	حذف کردن - مستهلک کردن
exception	استثناء - به شرط	repairs	تعمیرات
accelerated	شتابی - افزایشی	double-declining balance	مانده نزولی مضاعف
sum-of-the-years-digits	مجموع سنوات	straight-line method	خط مستقیم
calculate	محاسبه کردن	accumulated	انباشته
fraction	کسر - عددکسری	numerator	صورت - صورت کسر
denominator	تقسیم کننده - مخرج کسر	multiply	ضرب کردن
constant	ثابت	depreciable cost	بهای استهلاک پذیر
estimate	تخمین زدن	acquired	تحصیل کردن - کسب کردن
substance	ماهیت	rights	حقوق
accruing	عاید	advantages	مزایا

### جدول ارزشیابی پودمان

نمره	استاندارد (شاخص‌ها، داوری، نمره‌دهی)	نتایج	استاندارد عملکرد (کیفیت)	تکالیف عملکردی (شایستگی‌ها)	عنوان پودمان فصل
۳	کار عملی در حد هنرجو	بالاتر از حد انتظار	متون زبان تخصصی رشته حسابداری	ترجمه لغات و اصطلاحات تخصصی حسابداری	زبان فنی
۲	ترجمه متون تخصصی و حل مسائل مرتبط	در حد انتظار		به کارگیری لغات و اصطلاحات حسابداری در جمله و متن	
۱	یکی از دو تکلیف را انجام دهد	پایین تر از حد انتظار			
نمره مستمر از ۵					
نمره شایستگی پودمان از ۳					
نمره پودمان از ۲۰					

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سازمان پژوهش و برنامه‌ریزی آموزشی جهت ایفای نقش خطیر خود در اجرای سند تحول بنیادین در آموزش و پرورش و برنامه درسی ملی جمهوری اسلامی ایران، مشارکت معلمان را به‌عنوان یک سیاست اجرایی مهم دنبال می‌کند. برای تحقق این امر در اقدامی نوآورانه سامانه تعاملی بر خط اعتبارسنجی کتاب‌های درسی راه‌اندازی شد تا با دریافت نظرات معلمان درباره کتاب‌های درسی نونگاشت، کتاب‌های درسی را در اولین سال چاپ، با کمترین اشکال به دانش‌آموزان و معلمان ارجمند تقدیم نماید. در انجام مطلوب این فرایند، همکاران گروه تحلیل محتوای آموزشی و پرورشی استان‌ها، گروه‌های آموزشی و دبیرخانه راهبری دروس و مدیریت محترم پروژه آقای محسن باهو نقش سازنده‌ای را بر عهده داشتند. ضمن ارج نهادن به تلاش تمامی این همکاران، اسامی دبیران و هنرآموزانی که تلاش مضاعفی را در این زمینه داشته و با ارائه نظرات خود سازمان را در بهبود محتوای این کتاب یاری کرده‌اند به شرح زیر اعلام می‌شود.

#### اسامی دبیران و هنرآموزان شرکت کننده در اعتبارسنجی کتاب دانش فنی تخصصی رشته حسابداری - کد ۲۱۲۲۵۱

ردیف	نام و نام خانوادگی	استان محل خدمت	ردیف	نام و نام خانوادگی	استان محل خدمت
۱	فریبا زمانی	اردبیل	۱۳	فرح‌السادات سابعی	همدان
۲	جمیله اقای	البرز	۱۴	حمید نعمتی	شهر تهران
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