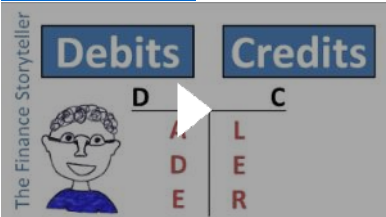


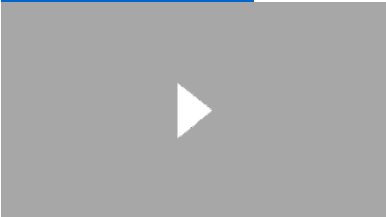
# Accounting

Sunday, January 14, 2024 7:00 PM

Debits and credits DC ADE LER



LEARN ACCOUNTING in Under 5 Hours!



## Basic Accounting:

Assets = Liabilities + Equity

Ex:	Cash	AP=0	Profit	Equity	Rent	
	Fixed Asset	Maid -	Salary	capital	Main	
	AR=0					
	A	L	I	C	E	
	Asset	Liability	Income	Capital & equity	Expense	
Normal Bal	Dr	Cr	Cr	Cr	Dr	Increase
	Cr	Dr	Dr	Dr	Cr	Decrease

### Charge and Receipt:

Charge and Receipt					
No Cash (Charge)	Accrual - Book	Before receiving the cash we record the transaction		DR	CR
				AR	Income
			Rent	5000	5000
Cash received	Accrual - Book	Before receiving the cash we record the transaction		Cash	AR
			EMI	5000	5000
	Cash - Book	Actual transaction			
				Cash	Income
			Rent	5000	5000

Charge and Receipt					
No Cash (Charge)	Accrual - Book	Before receiving the cash we record the transaction		DR	CR
				AR	Income
			Rent	5000	5000
Cash received	Accrual - Book	Before receiving the cash we record the transaction		Cash	AR
			Rent	5000	5000
	Cash - Book	Actual transaction		Cash	Income
			Rent	5000	5000

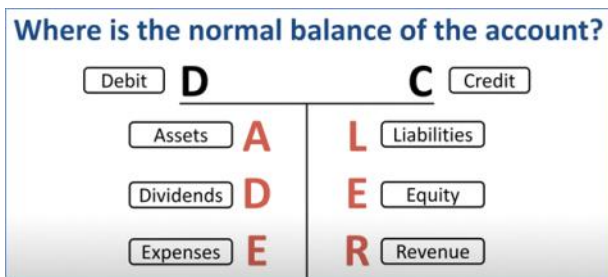
### Payable and Check:

Payable and Check					
No cash (Payable)	Accrual - Book	Before receiving the cash we record the transaction		DR	CR
				Exp	AP(Liability)

			Rent	5000	5000
Cash Given	Accrual	Before receiving the cash we record the transaction		AP(Liability)	Cash
			Rent	5000	5000
	Cash - Book	Actual transaction		Exp	Cash
			Rent	5000	5000

Payable and Check					
No cash (Payable)	Accrual - Book	Before receiving the <u>cash</u> we record the transaction		DR	CR
				Exp	AP(Liability)
			Rent	5000	5000
Cash Given	Accrual	Before receiving the <u>cash</u> we record the transaction		AP(Liability)	Cash
			Rent	5000	5000
	Cash - Book	Actual transaction		Exp	Cash
			Rent	5000	5000

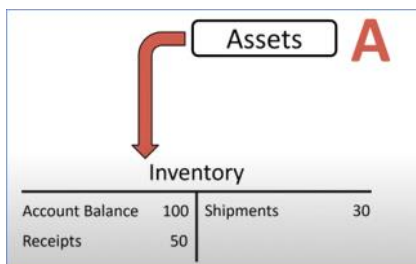
## Lecture 1: Debits and Credits



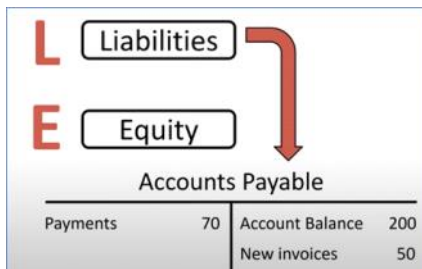
### Balance Sheet Equation:

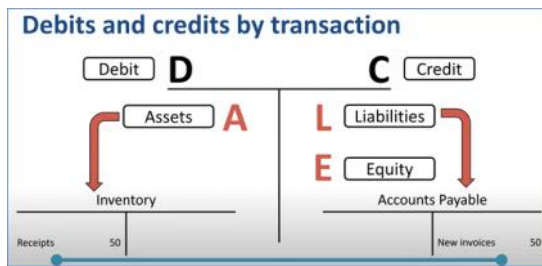
$$\text{Assets} = \text{Liabilities} + \text{Equity}$$

- Asset:** an asset is a resource that a business or economic entity owns or controls. Assets can be tangible or intangible and can be used to produce economic value



- Liabilities:** Something a person or company owes, usually a sum of money.





**Dividend:** A dividend is a distribution of profits by a corporation to its shareholders.  
 When a corporation earns a profit or surplus, it is able to pay a portion of the profit as a dividend to shareholders.  
 Any amount not distributed is taken to be re-invested in the business (called **retained earnings**).

## Lecture 2: Accounting Equation:



### Example:

- ◇ During the starting of company with \$100K

**Assets = Liabilities + Equity**

What we own		What we owe	
<b>Assets</b>		<b>Liabilities</b>	
Cash	\$100K		
		<b>Equity</b>	
		Paid In Capital	\$100K
<u>We own \$100K</u>		<u>We owe \$100K</u>	

- ◇ "Inventory" purchase on Loan for \$50k

**Assets = Liabilities + Equity**

What we own		What we owe	
<b>Assets</b>		<b>Liabilities</b>	
Cash	\$100K	Accounts Payable	\$50K
Inventory	\$50K	<b>Equity</b>	
		Paid In Capital	\$100K
<u>We own \$150K</u>		<u>We owe \$150K</u>	

- ◇ Company sold all the inventory for \$80k, hence made of profit of \$30k (they didn't give dividend so it comes under retained earnings)

**Assets = Liabilities + Equity**

What we own		What we owe	
<b>Assets</b>		<b>Liabilities</b>	
Cash	\$100K	Accounts Payable	\$50K
Accounts Receivable	\$80K	<b>Equity</b>	
Inventory	-	Paid In Capital	\$100K
		Retained Earnings	\$30K
<u>We own \$180K</u>		<u>We owe \$180K</u>	

Now, if we buy 'Assets' for \$25K then cash will reduce from \$100K to \$75K

## Assets = Liabilities + Equity

What we own		What we owe	
<b>Assets</b>		<b>Liabilities</b>	
Cash	\$75K	Accounts Payable	\$50K
Accounts Receivable	\$80K		
Inventory	-	<b>Equity</b>	
Fixed Assets	\$25K	Paid In Capital	\$100K
		Retained Earnings	\$30K
<u>We own \$180K</u>		<u>We owe \$180K</u>	

## Lecture 3: Debits and Credits:

- Normal Balance for accounts: (ALICE)

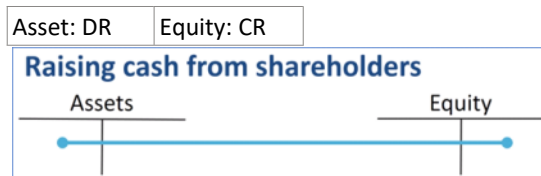
Balance Sheet accounts			
Assets		Liabilities	Equity
Debit		Credit	Credit

Income Statement accounts	
Expenses	Revenue
Debit	Credit

Example:

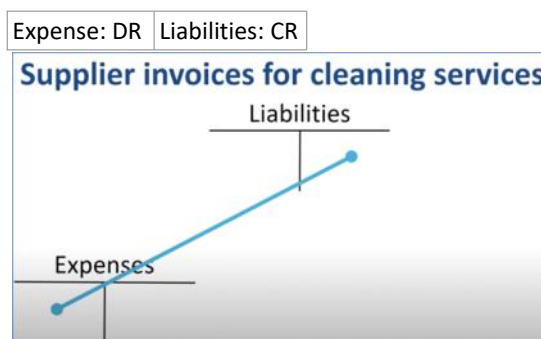
- Company raise cash from shareholder:



- Company raise cash through a loan from bank:

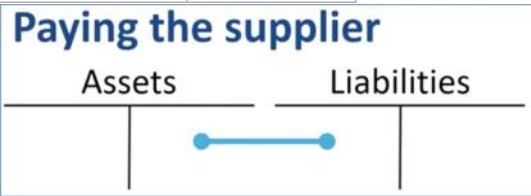


- Supplier invoice for cleaning services:



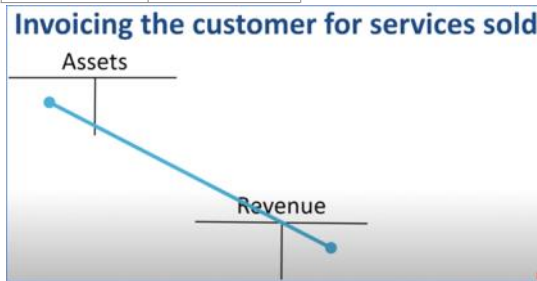
Now, paying the supplier for the cleaning work:

Assets(Cash): DR    Liabilities: CR



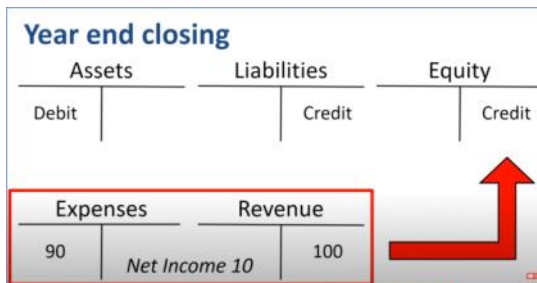
4. Billing to customer for services sold:

Assets: DR    Revenue: CR

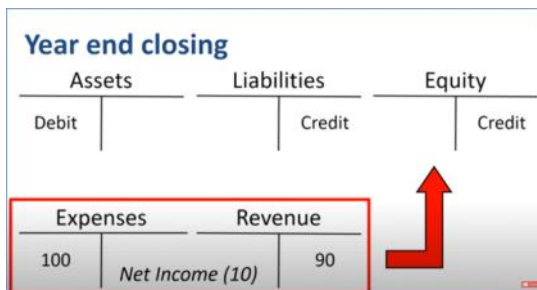


5. Year-end closure.

Profit of \$10 will be added to 'Retained Earning' in 'Equity'



Loss of (\$10) will be reduced to 'Retained Earning' in 'Equity'



## Lecture 4: T accounts:

**T accounts:** A visual representation of an account, to think through the journal entries for recording transactions.

### T accounts

4 simple steps:

1. Debits on the left, credits on the right
2. A T account is like a mini balance sheet
3. Decide first which type of account, then which specific account
4. Calculate ending balance per account

**Step 1:** DR- Left; CR- Right

## Step 2: Normal Balance of accounts

T accounting step 2			
Cash		Payables	
Debit			Credit
Receivables		Accrued Liabilities	
Debit			Credit
Inventory		Debt	
Debit			Credit
Fixed Assets		Equity	
Debit			Credit

If we notice, 'Expense' and 'Revenue' are sub-set of 'Equity'. At the end of accounting period, it will merge to 'Retained Earning' in 'Equity'

T accounting step 2			
Assets		Liabilities	Equity
Debit		Credit	Credit
Expenses		Revenue	
90	Net Income 10	100	

## Step 3: Decide type of accounts:

Example:

T accounting step 3: specific account			
Assets		Fixed Assets	Cash
X	X	100	100

Buy a building and forklift truck for \$100K, pay immediately

T accounting step 3: specific account			
Assets		Liabilities	
X			X

Buy product, with thirty days credit terms from supplier

Inventory	Accounts Payable
100	100

T accounting step 3: type of account			
Assets		Liabilities	Equity
	X		

The interest on the loan is due, and we pay it immediately

Expenses	Revenue
X	

## Step 4: Calculate Ending Balance per account:

## T accounting step 4: opening to ending

Cash			
Opening Balance	200	Buy Fixed Assets	100
		Pay Interest	10
Ending Balance	90		

## Lecture 5: Double Entry Accounting:

### Double entry accounting

Often used: "Every debit needs a credit"

Or "Both sides need to be recorded"

Technically correct: "Debit entries need to equal the credit entries"

Tangible Assets *	Intangible Assets	Goodwill	Liabilities **	Cash
\$5.7B	\$7.9B	\$16.8B	\$3.4B	\$27.0B

#### Example

Sum of debit entries = \$5.7B + \$7.9B + \$16.8B = \$30.4B

Sum of credit entries = \$3.4B + \$27B = \$30.4B

Often used: "Every debit needs a credit"

Or "Both sides need to be recorded"



Example of Double Entry Accounting via Accounting Equation:

### Assets (A) = Liabilities (L) + Equity (E)

Assets	Liabilities
What we own	What we owe
<ul style="list-style-type: none"> <li>Current Assets</li> <li>Non-Current Assets</li> </ul>	<ul style="list-style-type: none"> <li>Current Liabilities</li> <li>Non-Current Liabilities</li> <li>Equity</li> </ul>
<b>A</b>	<b>L</b> <b>E</b>

### Assets (A) = Liabilities (L) + Equity (E)

Tangible Assets *	Intangible Assets	Goodwill	Liabilities **	Cash
\$5.7B	\$7.9B	\$16.8B	\$3.4B	\$27.0B
<b>A</b>	<b>A</b>	<b>A</b>	<b>L</b>	<b>A</b>

#### Example

Increase in Assets: +\$5.7B + \$7.9B + \$16.8B - \$27B = \$3.4B

Increase in Liabilities = \$3.4B

## Lecture 5: Current Assets and Current Liabilities:

# Current Assets and Current Liabilities

## Balance Sheet

### What we own

- Current Assets
- Non-Current Assets

### What we owe

- Current Liabilities
- Non-Current Liabilities
- Equity

#### Current Assets

Cash and other assets that are expected to be converted to **cash within a year**

Examples: Cash, Accounts Receivable, Inventory, Prepaid Expenses

#### Current Liabilities

Amounts due to be paid to creditors **within twelve months**

Examples: Accounts Payable, Accrued Liabilities, Short Term Debt

Example:

## Apple's Current Assets / Liabilities

### Balance Sheet @ Sep 28, 2019

<b>Current assets:</b>		<b>Current liabilities:</b>	
Cash and cash equivalents	\$ 48,844	Accounts payable	\$ 46,236
Marketable securities	51,713	Other current liabilities	37,720
Accounts receivable, net	22,926	Deferred revenue	5,522
Inventories	4,106	Commercial paper	5,980
Vendor non-trade receivables	22,878	Term debt	10,260
Other current assets	12,352	Total current liabilities	105,718
Total current assets	162,819		
<b>Non-current assets:</b>		<b>Non-current liabilities:</b>	
Marketable securities	105,341	Term debt	91,807
Property, plant and equipment, net	37,378	Other non-current liabilities	50,503
Other non-current assets	32,978	Total non-current liabilities	142,310
Total non-current assets	175,697	Total liabilities	248,028
Total assets	\$ 338,516	Total shareholders' equity	90,488
		Total liabilities and shareholders' equity	\$ 338,516

## Amazon's Current Assets / Liabilities

### Balance Sheet @ Sep 30, 2019

<b>Current assets:</b>		<b>Current liabilities:</b>	
Cash and cash equivalents	23,255	Accounts payable	35,794
Marketable securities	20,146	Accrued expenses and other	28,961
Inventories	18,766	Unearned revenue	7,381
Accounts receivable, net and other	16,887	Total current liabilities	72,136
Total current assets	79,054	Long-term lease liabilities	37,058
Property and equipment, net	67,662	Long-term debt	22,472
Operating leases	23,114	Other long-term liabilities	10,925
Goodwill	14,734	Total stockholders' equity	56,508
Other assets	14,535	Total liabilities and stockholders' equity	199,099
Total assets	199,099		

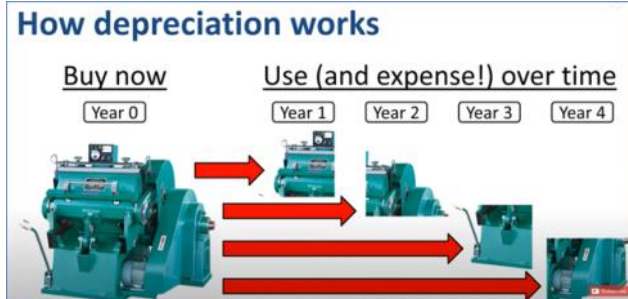


## 1. Depreciation

Friday, January 26, 2024 10:08 AM

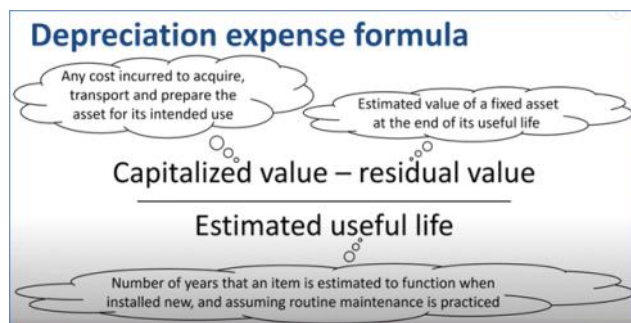
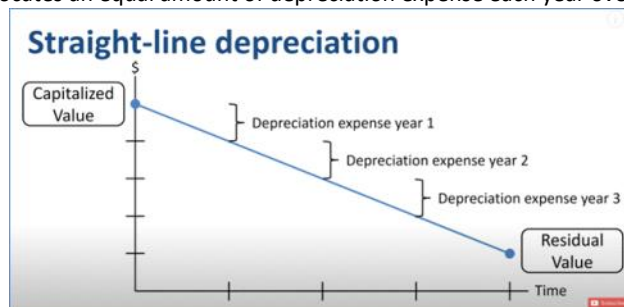
### Lecture 1: Depreciation :

Depreciation is a gradual decrease in the book value of fixed assets.

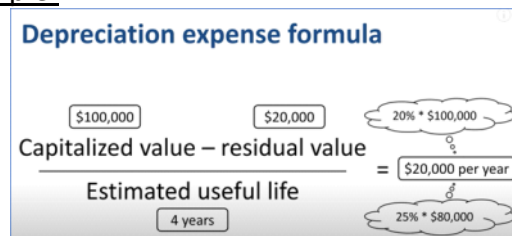


#### **Straight - Line Depreciation:**

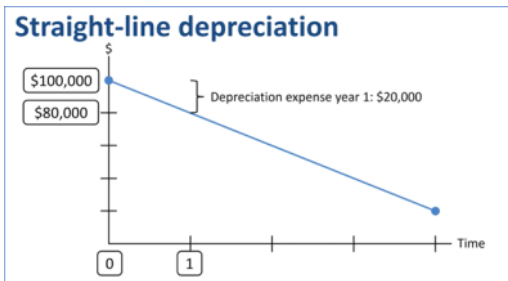
Allocates an equal amount of depreciation expense each year over the asset's useful life.



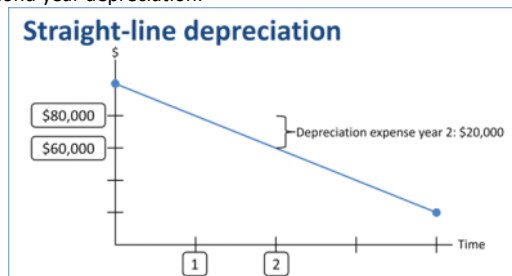
#### Example:



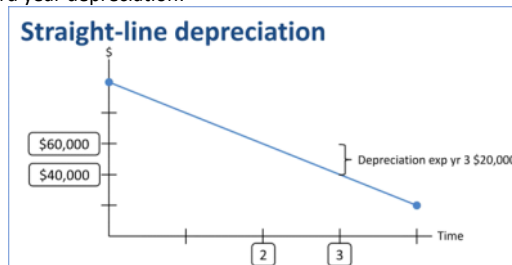
First year depreciation:



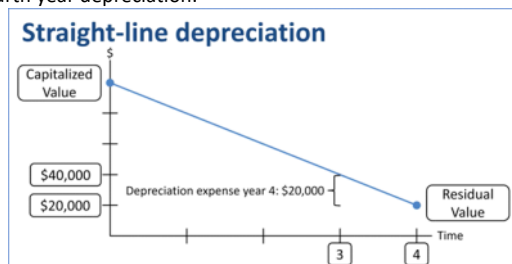
Second year depreciation:



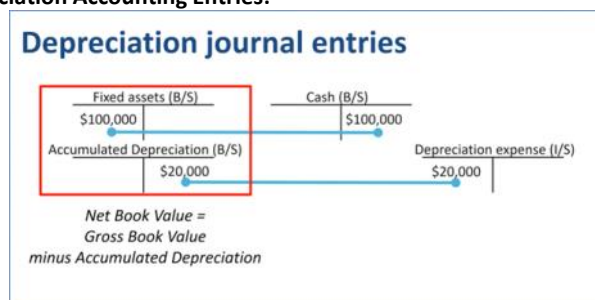
Third year depreciation:



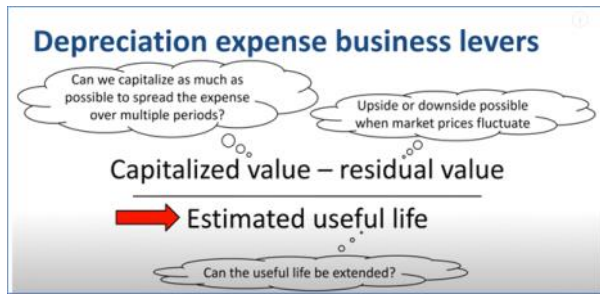
Fourth year depreciation:



**Depreciation Accounting Entries:**



**Depreciation Expense Business Levers:**



### Estimated Useful Lives matter!

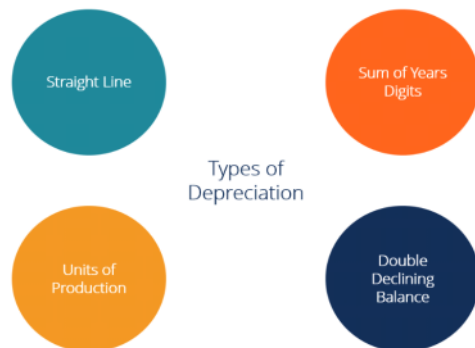
<b>a</b>	"... longer useful lives are due to continuous improvements in our hardware, software, and data center designs..."	
	Servers 4 → 5 years	\$3.6B
	Network equipment 5 → 6 years	
<b>Meta</b>	"... due to expected longer refresh cycles in our data centers"	
	Servers and network assets 4 → 4.5 → 5 years	\$860MM
<b>Alphabet Google</b>	Servers 4 → 6 years	\$3.4B
	Network equipment 5 → 6 years	

## Lecture 3: Depreciation - III :

Article: <https://corporatefinanceinstitute.com/resources/accounting/types-depreciation-methods/>

There are several types of [depreciation expense](#) and different formulas for determining the [book value](#) of an asset. The most common depreciation methods include:

1. Straight-line
2. Double declining balance
3. Units of production
4. Sum of years digits



### 1. Straight-Line Depreciation Method:

In straight-line depreciation, the [expense amount is the same every year over the useful life of the asset](#).

**Depreciation Formula for the Straight Line Method:**

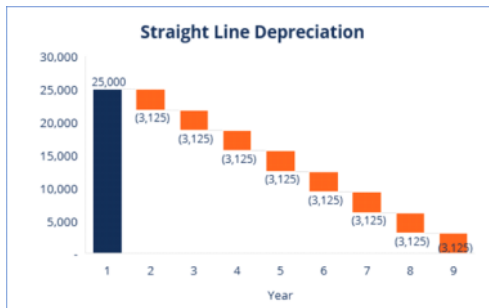
$$\text{Depreciation Expense} = (\text{Cost} - \text{Salvage value}) / \text{Useful life}$$

**Example:**

Consider a piece of equipment that costs \$25,000 with an estimated useful life of 8 years and a \$0 salvage value. The depreciation expense per year for this equipment would be as follows:

Year #	1	2	3	4	5	6	7	8
<b>Straight Line</b>								
Opening Book Value	25,000	21,875	18,750	15,625	12,500	9,375	6,250	3,125
Depreciation	3,125	3,125	3,125	3,125	3,125	3,125	3,125	3,125
Ending Book Value	25,000	21,875	18,750	15,625	12,500	9,375	6,250	3,125

$$\text{Depreciation Expense} = (\$25,000 - \$0) / 8 = \$3,125 \text{ per year}$$



## 2. Double Declining Balance Depreciation Method

- Compared to other depreciation methods, double-declining-balance depreciation results in a larger amount expensed in the earlier years as opposed to the later years of an asset's useful life.
- The method reflects the fact that assets are typically **more productive in their early years than in their later years** – also, the practical fact that any asset (think of buying a car) loses more of its value in the first few years of its use.
- With the double-declining-balance method, the **depreciation factor is 2x that of the straight-line expense method**.

**Depreciation formula for the double-declining balance method:**

$$\text{Periodic Depreciation Expense} = \text{Beginning book value} \times \text{Rate of depreciation}$$

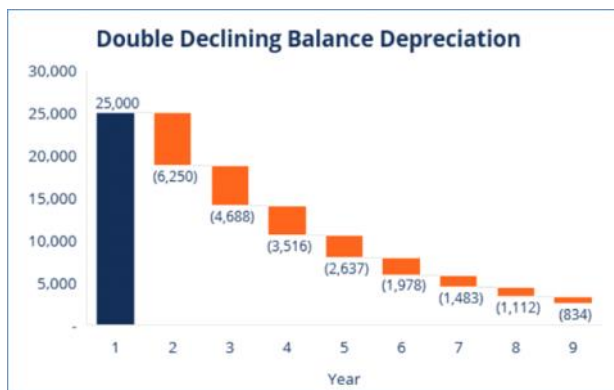
### Example:

Consider a piece of property, plant, and equipment (PP&E) that costs \$25,000, with an estimated useful life of 8 years and a \$2,500 salvage value. To calculate the double-declining balance depreciation, set up a schedule:

Year #	1	2	3	4	5	6	7	8
<b>DOB</b>								
Opening Book Value	25,000	18,750	14,063	10,547	7,910	5,933	4,449	3,337
Depreciation	25%	6,250	4,688	3,516	2,637	1,978	1,483	1,112
Ending Book Value	25,000	18,750	14,063	10,547	7,910	5,933	4,449	3,337

The information on the schedule is explained below:

- The beginning book value of the asset is filled in at the beginning of year 1 and the salvage value is filled in at the end of year 8.
- The rate of depreciation (Rate) is calculated as follows:  
 $\text{Expense} = (100\% / \text{Useful life of asset}) \times 2$   
 $\text{Expense} = (100\% / 8) \times 2 = 25\%$   
 Note: Since this is a double-declining method, we multiply the rate of depreciation by 2.
- Multiply the rate of depreciation by the beginning book value to determine the expense for that year.  
 For example,  $\$25,000 \times 25\% = \$6,250$  depreciation expense.
- Subtract the expense from the beginning book value to arrive at the ending book value.  
 For example,  $\$25,000 - \$6,250 = \$18,750$  ending book value at the end of the first year.
- The ending book value for that year is the beginning book value for the following year.  
 For example, the year 1 ending book value of \$18,750 would be the year 2 beginning book value. Repeat this until the last year of useful life.



## 3. Units of Production Depreciation Method

The units-of-production depreciation method depreciates assets **based** on the **total number of hours used** or **the total number of units to be produced by using the asset**, over its useful life.

**The formula for the units-of-production method:**

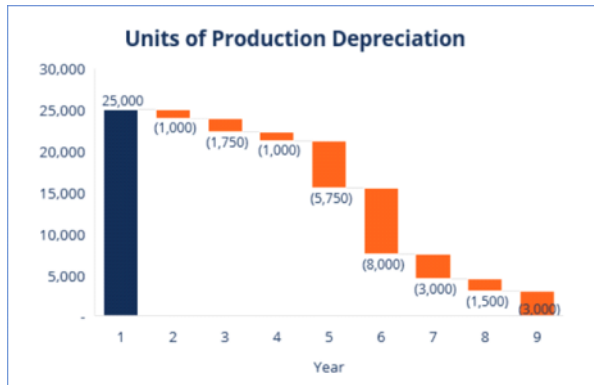
$$\text{Depreciation Expense} = (\text{Number of units produced} / \text{Life in number of units}) \times (\text{Cost} - \text{Salvage value})$$

### Example:

Consider a machine that costs \$25,000, with an estimated total unit production of 100 million and a \$0 salvage value. During the first quarter of activity, the machine produced 4 million units.

Year #	1	2	3	4	5	6	7	8
<b>Units</b>								
Production (Units)	4	7	4	23	32	12	6	12
Opening Book Value	25,000	24,000	22,250	21,250	15,500	7,500	4,500	3,000
Depreciation	1,000	1,750	1,000	5,750	8,000	3,000	1,500	3,000
Ending Book Value	25,000	24,000	22,250	21,250	15,500	7,500	4,500	3,000

First Year: Depreciation Expense = (4 million / 100 million) x (\$25,000 – \$0) = \$1,000  
Second Year: Depreciation Expense = (7 million / 100 million) x (\$25,000 – \$0) = \$1,750  
Third Year: Depreciation Expense = (4 million / 100 million) x (\$25,000 – \$0) = \$1,000  
Fourth Year: Depreciation Expense = (23 million / 100 million) x (\$25,000 – \$0) = \$5,750  
Fifth Year: Depreciation Expense = (32 million / 100 million) x (\$25,000 – \$0) = \$8,000



#### 4. Sum-of-the-Years-Digits Depreciation Method

- The sum-of-the-years-digits method is one of the accelerated depreciation methods. A **higher expense is incurred in the early years and a lower expense in the latter years of the asset's useful life.**
- In the sum-of-the-years digits depreciation method, the remaining life of an asset is divided by the sum of the years and then multiplied by the depreciating base to determine the depreciation expense.

The depreciation formula for the sum-of-the-years-digits method:

$$\text{Depreciation Expense} = (\text{Remaining life} / \text{Sum of the years digits}) \times (\text{Cost} - \text{Salvage value})$$

Consider the following example to more easily understand the concept of the sum-of-the-years-digits depreciation method.

##### Example:

Consider a piece of equipment that costs \$25,000 and has an estimated useful life of 8 years and a \$0 salvage value. To calculate the sum-of-the-years-digits depreciation, set up a schedule:

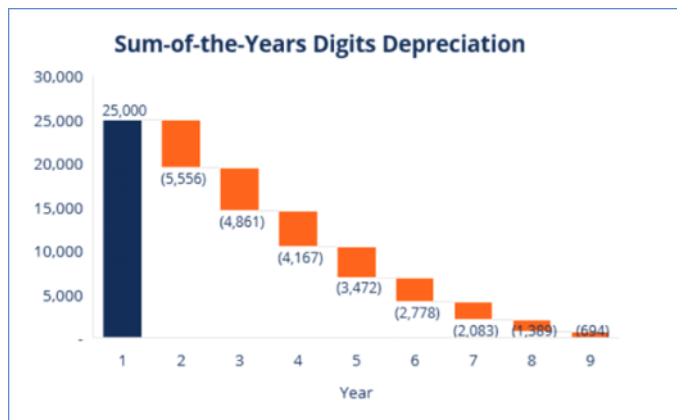
Year #	1	2	3	4	5	6	7	8
<b>SYD</b>								
Remaining Life	8	7	6	5	4	3	2	1
Opening Book Value	25000	19,444	14,583	10,417	6,944	4,167	2,083	694
Depreciation	5,556	4,861	4,167	3,472	2,778	2,083	1,389	694
Ending Book Value	25,000	19,444	14,583	10,417	6,944	4,167	2,083	694

The depreciation base is constant throughout the years and is calculated as follows:

$$\begin{aligned} \text{Depreciation Base} &= \text{Cost} - \text{Salvage value} \\ \text{Depreciation Base} &= \$25,000 - \$0 = \$25,000 \end{aligned}$$

- The remaining life is simply the remaining life of the asset.  
For example, at the beginning of the year, the asset has a remaining life of 8 years. The following year, the asset has a remaining life of 7 years, etc.
- RL / SYD is "remaining life divided by sum of the years." In this example, the asset has a useful life of 8 years.  
Therefore, the sum of the years would be 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 = 36 years.  
The remaining life in the beginning of year 1 is 8. Therefore, the RL / SYD = 8 / 36 = 0.2222.
- The RL / SYD number is multiplied by the depreciating base to determine the expense for that year.
- The same is done for the following years. In the beginning of year 2, RL / SYD would be 7 / 36 = 0.1944. x \$25,000 = \$4,861 expense for year 2.

First Year: Depreciation Expense = (8 remaining year / year 36 total) x (\$25,000 – \$0) = \$5,556  
Second Year: Depreciation Expense = (7 remaining year / year 36 total) x (\$25,000 – \$0) = \$4,861  
Third Year: Depreciation Expense = (6 remaining year / year 36 total) x (\$25,000 – \$0) = \$4,167  
Fourth Year: Depreciation Expense = (5 remaining year / year 36 total) x (\$25,000 – \$0) = \$3,472  
Fifth Year: Depreciation Expense = (4 remaining year / year 36 total) x (\$25,000 – \$0) = \$2,778



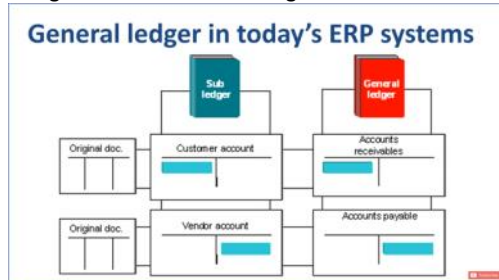
## Lecture 4: edrw3 Depreciation VS Amortization:

Basis	Depreciation	Amortization
Concept	Depreciation is described as a permanent, continuing and gradual shrinkage in the <b>book value of fixed assets</b> .	Amortization is a general term used to write off <b>intangible assets such as patents, copyrights</b> , etc. It is a periodic depletion in the value of such assets.
use	Depreciation is used to logically spread the cost of a <b>fixed asset</b> over its useful life.	Amortization is used to match the cost of using an <b>intangible asset</b> and the revenue the asset is generating, in the normal course of business.
Standard	IAS 16 covers the norms of depreciation in property, plant and equipment's.	IAS 38 covers the norms of amortization.
Methods	<b>Straight line method</b> and <b>written down</b> value methods are commonly used for depreciation.	<b>Straight line method</b> is the most acceptable method of calculating amortization.
Formula	$(\text{Cost of asset} - \text{scrap value}) / \text{Economic life}$	$\text{Cost of Asset} / \text{Economic life}$
Scrap Value	There is a <b>concept of scrap value</b> (salvage value) as it deals with tangible assets.	There is <b>no concept</b> of a scrap value in intangible assets.
Example	<b>Plant, land, building</b> are some common depreciable assets.	<b>Patents, copyrights, franchises</b> are generally amortized.

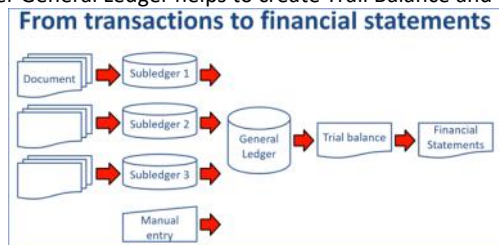
### Lecture 1: General Ledger:

The general ledger is a **central accounting record that provides a complete record of all financial transactions of a business**. It serves as the primary accounting record for a company, summarizing all transactions in various accounts

General ledger created from Subledger.



Further General Ledger helps to create Trail Balance and Financial Statement.



### Lecture 2: Balance Sheet and Income Statement:

#### Balance Sheet:

- A financial statement that reports a company's **assets**, **liabilities**, and **shareholder equity** at a **specific point in time**.
- Balance sheets provide the basis for **computing rates of return for investors** and **evaluating a company's capital structure**
- **Ex: It is like camera - specific point in time**

#### Income Statement

- An income statement, also known as a **profit and loss (P&L) statement**
- It is a financial report that details a **company's income** and **expenses over a reporting period**. It's typically prepared quarterly or annually
- **Ex: It is like a movie - it does have start and end point**



Example:

Transaction in the entire year:

Balance Sheet		Income Statement	
Assets	Liabilities		
Cash 60	Equity 100	Revenue 200	
	Paid in Capital 100	Cost Of Sales 100	
P&E 80	Debt 100	Gross Profit 100	
Inventory 0	Payables 100	Comp & Ben 20	
Receivables 200		Depreciation 20	
		EBIT / Op Margin 60	
		Interest 10	
		Profit Before Tax 50	
		Tax 10	
Total Assets 340	Total Liab 300	Net Income 40	

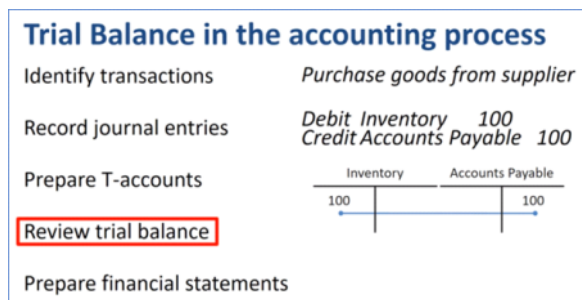
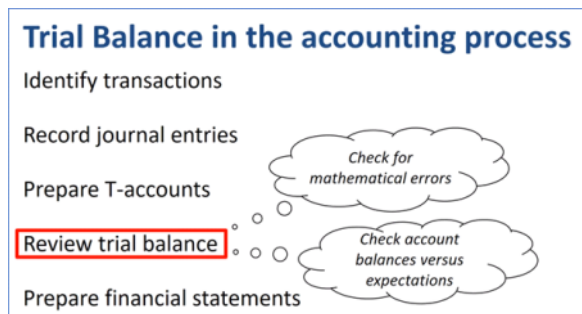
But the Balance Sheet is not balance above.

At the year end, we transfer the net income (either profit or loss) to 'Retained Earning' in 'Equity' in Balance Sheet.

Balance Sheet		Income Statement	
Assets	Liabilities		
Cash 60	Equity 140	Revenue 200	
	Paid in Capital 100	Cost Of Sales 100	
	Retained earnings 40	Gross Profit 100	
P&E 80	Debt 100	Comp & Ben 20	
Inventory 0	Payables 100	Depreciation 20	
Receivables 200		EBIT / Op Margin 60	
		Interest 10	
		Profit Before Tax 50	
		Tax 10	
Total Assets 340	Total Liab 340	Net Income 40	

### Lecture 3: Trail Balance:

- A listing of all ledger accounts along with their respective debit or credit balances for the period
- A trial balance is a fundamental accounting report that lists the balances of all general ledger accounts of a company at a specific point in time. It serves as a preliminary check to ensure that the total debits equal the total credits, thereby verifying the accuracy of the recorded transactions



#### Example for Trail Balance:

Step1: Balance on Assets account:



### From T-accounts to Trial Balance

**Cash** = 0

100	100
100	10
20	10
10	100

**Accounts Receivable**

200	
-----	--

**Plant & Equipment**

100	20
-----	----

**Trial Balance**  
For year 1

Account	Debit	Credit
Cash	60	
Accounts Receivable	200	
Inventory	0	
Plant & Equipment	80	

*Debits 200 minus Credits 140*

*Debits 100 minus Credits 20*

Step2: Balance on **Liabilities** account:

### From T-accounts to Trial Balance

**Accounts Payable**

100	
-----	--

**Debt**

100	
-----	--

**Equity**

100	
-----	--

**Trial Balance**  
For year 1

Account	Debit	Credit
Cash	60	
Accounts Receivable	200	
Inventory	0	
Plant & Equipment	80	
Accounts Payable		100
Debt		100
Equity		100

Step3: Balance on **Income statement (P&L)** account:

### From T-accounts to Trial Balance

**Revenue**

200	
-----	--

**Comp & Ben**

20	
----	--

**Interest**

10	
----	--

**Cost of Goods Sold**

100	
-----	--

**Depreciation**

20	
----	--

**Taxes**

10	
----	--

**Trial Balance**  
For year 1

Account	Debit	Credit
Cash	60	
Accounts Receivable	200	
Inventory	0	
Plant & Equipment	80	
Accounts Payable		100
Debt		100
Equity		100
Revenue		200
Cost of Goods Sold	100	
Comp & Ben	20	
Depreciation	20	
Interest	10	
Taxes	10	

Finally: (Debits matched with Credit)

### From T-accounts to Trial Balance

**Revenue**

200	
-----	--

**Comp & Ben**

20	
----	--

**Interest**

10	
----	--

**Cost of Goods Sold**

100	
-----	--

**Depreciation**

20	
----	--

**Taxes**

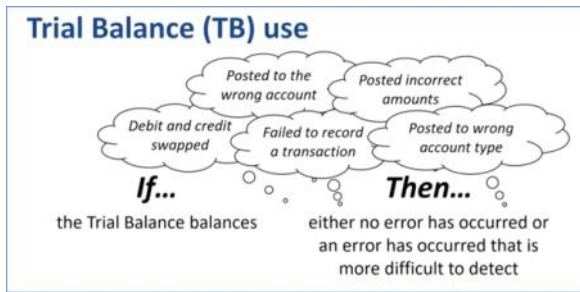
10	
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**Trial Balance**  
For year 1

Account	Debit	Credit
Cash	60	
Accounts Receivable	200	
Inventory	0	
Plant & Equipment	80	
Accounts Payable		100
Debt		100
Equity		100
Revenue		200
Cost of Goods Sold	100	
Comp & Ben	20	
Depreciation	20	
Interest	10	
Taxes	10	
<b>Total</b>	<b>500</b>	<b>500</b>

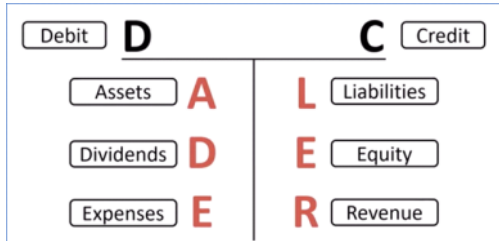
Use of Trial Balance:

<h2 style="margin: 0;">Trial Balance (TB) use</h2>	
<p><b><i>If...</i></b></p> <p>the Trial Balance fails to balance</p>	<p><b><i>Then...</i></b></p> <p>an error has occurred and must be located</p>
<p><b><i>If...</i></b></p> <p>the Trial Balance balances</p>	<p><b><i>Then...</i></b></p> <p>either no error has occurred or an error has occurred that is more difficult to detect</p>

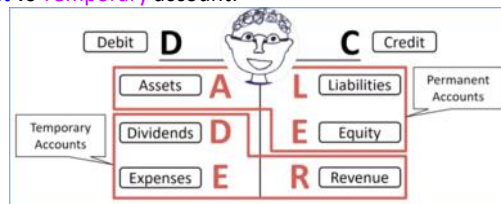


## Lecture 4: Closing Entries in Accounting:

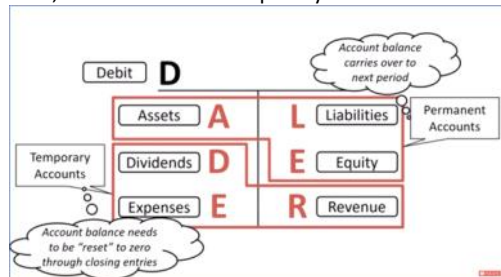
- Account and their **normal balance**:



**Permanent vs Temporary account:**



At the year end, Balances in the Temporary account needed to be rest to '0' and balance need to transfer to Permanent Account:



- Balance in the temporary account needs to close at year end:

### Trial Balance: classifying accounts

Trial Balance For year 1			
	Account	Debit	Credit
P	Cash	60	
P	Accounts Receivable	200	
P	Inventory	0	
P	Plant & Equipment	80	
P	Accounts Payable		100
P	Debt		100
P	Equity		100
T	Revenue		200
T	Cost of Goods Sold	100	
T	Comp & Ben	20	
T	Depreciation	20	
T	Interest	10	
T	Taxes	10	
	<b>Total</b>	<b>500</b>	<b>500</b>

### Trial Balance: temporary accounts to close

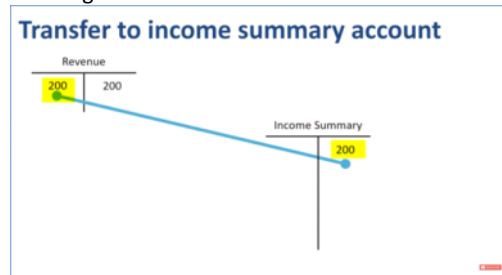
Revenue		Cost of Goods Sold		Trial Balance For year 1		
				Account	Debit	Credit
	200		100	Cash	60	
				Accounts Receivable	200	
				Inventory	0	
				Plant & Equipment	80	
Comp & Ben		Depreciation		Accounts Payable		100
20		20		Debt		100
				Equity		100
Interest		Taxes		Revenue		200
10		10		Cost of Goods Sold	100	
				Comp & Ben	20	
				Depreciation	20	
				Interest	10	
				Taxes	10	
				<b>Total</b>	<b>500</b>	<b>500</b>

- In Order to close the 'Temporary' account balance for this closing year. We need to transfer the balance 'Income summary' account:

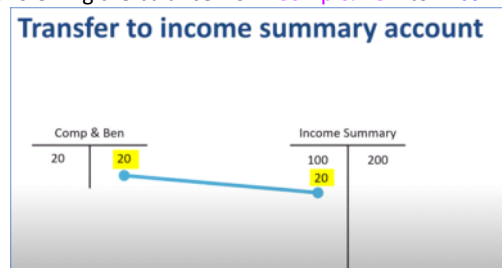
### Transfer to income summary account

Revenue		Cost of Goods Sold		Income Summary	
	200		100		
Comp & Ben		Depreciation			
20		20			
Interest		Taxes			
10		10			

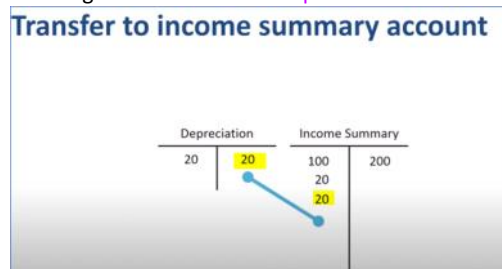
- Transferring the balance from 'Revenue' to 'Income Summary'



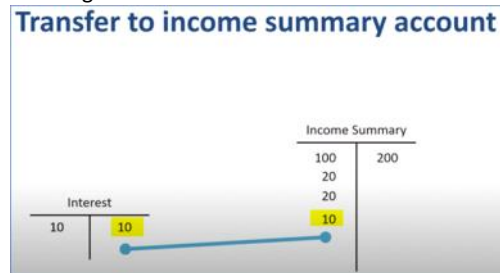
- Transferring the balance from 'Comp & Ben' to 'Income Summary'



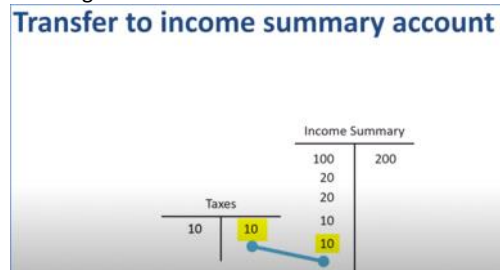
- Transferring the balance from 'Depreciation' to 'Income Summary'



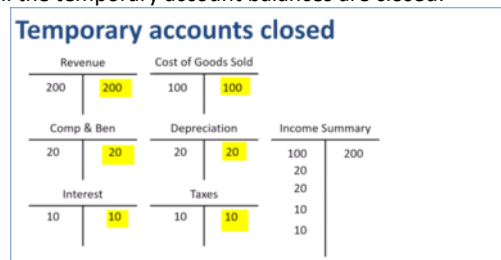
- Transferring the balance from 'Interest' to 'Income Summary'



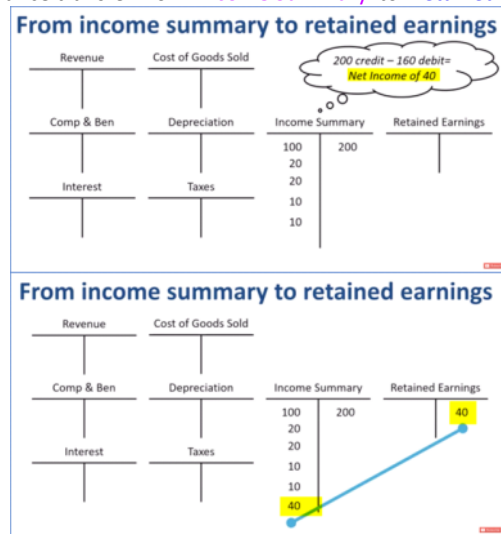
- Transferring the balance from 'Tax' to 'Income Summary'



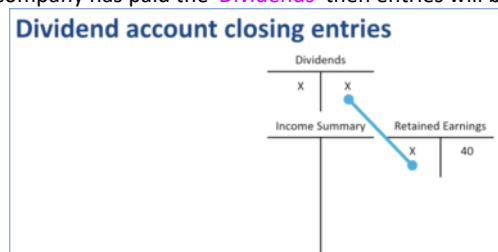
- ✓ Now all the temporary account balances are closed:



- Balance transfer from 'Income Summary' to 'Retained Earnings'



- If the company has paid the 'Dividends' then entries will be:



- **Pre-closure** and **Post-closure** of Accounting during the year end:

Trial Balance update			Trial Balance update		
Trial Balance (pre-close)			Trial Balance (post-close)		
For year 1			For year 1		
Account	Debit	Credit	Account	Debit	Credit
Cash	60		Cash	60	
Accounts Receivable	200		Accounts Receivable	200	
Inventory	0		Inventory	0	
Plant & Equipment	80		Plant & Equipment	80	
Accounts Payable		100	Accounts Payable		100
Debt		100	Debt		100
Equity		100	Equity		140
Revenue		200	Revenue		0
Cost of Goods Sold	100		Cost of Goods Sold	0	
Comp & Ben	20		Comp & Ben	0	
Depreciation	20		Depreciation	0	
Interest	10		Interest	0	
Taxes	10		Taxes	0	
<b>Total</b>	<b>500</b>	<b>500</b>	<b>Total</b>	<b>340</b>	<b>340</b>

Temporary account balance is rolled-up to 'Equity' and balance of 'Equity' is increased by \$40 due to year end closure:

Trial Balance update			Trial Balance update		
Trial Balance (pre-close)			Trial Balance (post-close)		
For year 1			For year 1		
Account	Debit	Credit	Account	Debit	Credit
Cash	60		Cash	60	
Accounts Receivable	200		Accounts Receivable	200	
Inventory	0		Inventory	0	
Plant & Equipment	80		Plant & Equipment	80	
Accounts Payable		100	Accounts Payable		100
Debt		100	Debt		100
Equity		100	Equity		140
Revenue		200	Revenue		0
Cost of Goods Sold	100		Cost of Goods Sold	0	
Comp & Ben	20		Comp & Ben	0	
Depreciation	20		Depreciation	0	
Interest	10		Interest	0	
Taxes	10		Taxes	0	
<b>Total</b>	<b>500</b>	<b>500</b>	<b>Total</b>	<b>340</b>	<b>340</b>

## Lecture 5: Income Statement:

**Income Statement:** It is known as a profit and loss (P&L) statement, is a financial report that shows a company's income and expenses over a period of time.

Income Statement is also known as:

- Consolidated Statement of Earnings
- Profit & loss statement
- Earning Report
- Statement of Operations
- Statement of Financial Performance
- Income Statement

Read Income Statement:

Example: Microsoft Income Statement:

INCOME STATEMENTS				
(In millions, except per share amounts)				
Year Ended June 30,	2019	2018	2017	
<b>Revenue:</b>				
Product	\$ 66,069	\$ 64,497	\$ 63,811	
Service and other	59,774	45,863	32,760	
Total revenue	125,843	110,360	96,571	
Cost of revenue:				
Product	16,273	15,420	15,175	
Service and other	26,637	22,933	19,086	
Total cost of revenue	42,910	38,353	34,261	
Gross margin	82,933	72,007	62,310	
Research and development	16,876	14,726	13,037	
Sales and marketing	18,213	17,469	15,461	
General and administrative	4,885	4,754	4,481	
Restructuring	0	0	306	
Operating income	42,959	35,058	29,025	
Other income, net	729	1,416	876	
Income before income taxes	43,688	36,474	29,901	
Provision for income taxes	4,448	19,903	4,412	
<b>Net income</b>	<b>\$ 39,240</b>	<b>\$ 16,571</b>	<b>\$ 25,489</b>	
Earnings per share:				
Basic	\$ 5.11	\$ 2.15	\$ 3.29	
Diluted	\$ 5.06	\$ 2.13	\$ 3.25	
Weighted average shares outstanding:				
Basic	7,673	7,700	7,746	
Diluted	7,753	7,794	7,832	

Top Line

Net Sales Billed  
Turnover

Bottom Line

Net Earnings  
Net Profit

- ✓ **Revenue:** (generated by selling goods and giving services:)

INCOME STATEMENTS				
(In millions, except per share amounts)				
Year Ended June 30,	2019	2018	2017	
<b>Revenue:</b>				
Product	\$ 66,069	\$ 64,497	\$ 63,811	
Service and other	59,774	45,863	32,760	
Total revenue	125,843	110,360	96,571	

**NOTES TO FINANCIAL STATEMENTS**  
**NOTE 1 — ACCOUNTING POLICIES**  
*Revenue Recognition*  
"Revenue is recognized upon transfer of control of promised products or services to customers....."

- ✓ **Cost of Revenue:** Cost Incurred to generate the revenue:

INCOME STATEMENTS				
(In millions, except per share amounts)				
Year Ended June 30,	2019	2018	2017	
Revenue:				
Product	\$ 66,069	\$ 64,497	\$ 63,811	
Service and other	59,774	45,863	32,760	
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Cost of revenue:				
Product	16,273	15,420	15,175	
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Total cost of revenue	42,910	38,353	34,261	

\$

Cost of Revenue

Number of units sold

INCOME STATEMENTS				
(In millions, except per share amounts)				
Year Ended June 30,	2019	2018	2017	
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Product	\$ 66,069	\$ 64,497	\$ 63,811	
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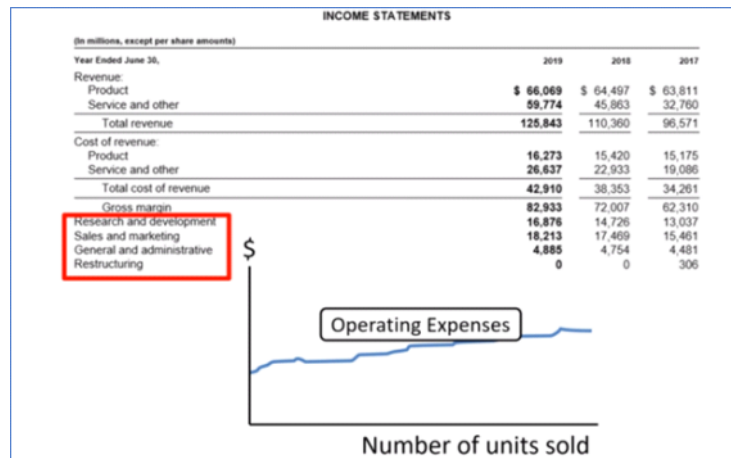
Cost of revenue includes (amongst others):

- Manufacturing and distribution costs for products sold and programs licensed
- Operating costs related to product support service centers and product distribution centers
- Costs incurred to include software on PCs sold by original equipment manufacturers ("OEM")
- Costs incurred to support and maintain online products and services, including datacenter costs and royalties

- ✓ **Gross Margin:** Total Revenue - Gross Margin  
 $125,843 - 42,910 = 82,933$

INCOME STATEMENTS				
(In millions, except per share amounts)				
Year Ended June 30,	2019	2018	2017	
Revenue:				
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Total cost of revenue	42,910	38,353	34,261	
Gross margin	66%	82,933	72,007	62,310

- ✓ **Operating Expense (OPEX):** ongoing costs that a business incurs to maintain its day-to-day operations.



INCOME STATEMENTS				
(In millions, except per share amounts)				
Year Ended June 30,	2019	2018	2017	
Revenue:				
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Total cost of revenue	42,910	38,353	34,261	
Gross margin	82,933	72,007	62,310	
Research and development	16,876	14,726	13,037	
Sales and marketing	18,213	17,469	15,461	
General and administrative	4,885	4,754	4,481	
Restructuring	0	0	306	

Expense Category	Expenses associated with	% rev
Research and development	Product development	13%
Sales and marketing	Sales and marketing personnel, advertising, promotions, trade shows, seminars, etc.	14%
General and administrative	Finance, legal, facilities, human resources, etc.	4%

- ✓ **Operating Income:** Operating income is a company's profit after deducting operating expenses. It's also known as income from operations, EBIT, or Earnings Before Interest and Taxes

Formula:

- Operating income = Total Revenue – Direct Costs – Indirect Costs. OR.
- Operating income = Gross Profit – Operating Expenses – Depreciation – Amortization. OR.
- Operating income = Net Earnings + Interest Expense + Taxes. Sample Calculation

Operating Income = Total Revenue - Gross Margin - Operating Income  
 $82993 - 16876 - 18213 - 4885 = 43019$



INCOME STATEMENTS				
(In millions, except per share amounts)				
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General and administrative	4,885	4,754	4,481	
Restructuring	0	0	306	
Operating income	34%	42,959	35,058	29,025

Few other Line items in Income statement:

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(In millions, except per share amounts)				
Year Ended June 30,	2019	2018	2017	
Revenue:				
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Cost of revenue:				
Product	16,273	15,420	15,175	
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General and administrative	4,885	4,754	4,481	
Restructuring	0	0	306	
Operating income	42,959	35,058	29,025	
Other income, net	729	1,416	876	
Income before income taxes	43,688	36,474	29,901	
Provision for income taxes	4,448	19,903	4,412	
Net income	\$ 39,240	\$ 16,571	\$ 25,489	

Interest income and expense, net recognized gains on investments

Effective tax rate 10% vs. federal statutory rate 21%

✓ Net Income:

Operating Income = Total Revenue - Gross Margin - Operating Income - + Other Income, Net - Provision of Income Taxes  
 $82993 - 16876 - 18213 - 4885 + 729 - 4448 = 39300$

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Provision for income taxes	4,448	19,903	4,412	
Net income	31%	\$ 39,240	\$ 16,571	\$ 25,489
Earnings per share:				
Basic	\$ 5.11	\$ 2.15	\$ 3.29	
Diluted	\$ 5.06	\$ 2.13	\$ 3.25	
Weighted average shares outstanding:				
Basic	7,673	7,700	7,746	
Diluted	7,753	7,794	7,832	

✓ Earnings Per Share (EPS):

$EPS = \text{Net Income} / \text{Weighted Average share outstanding}$



INCOME STATEMENTS			
(In millions, except per share amounts)			
Year Ended June 30,	2019	2018	2017
Revenue:			
Product	\$ 66,069	\$ 64,497	\$ 63,811
Service and other	59,774	45,863	32,760
Total revenue	125,843	110,360	96,571
Cost of revenue:			
Product	16,273	15,420	15,175
Service and other	26,637	22,933	19,086
Total cost of revenue	42,910	38,353	34,261
Gross margin	82,933	72,007	62,310
Research and development	16,876	14,726	13,037
Sales and marketing	18,213	17,469	15,461
General and administrative	4,885	4,754	4,481
Restructuring	0	0	306
Operating income	42,959	35,058	29,025
Other income	729	1,416	876
Income before provision for income taxes	43,688	36,474	29,901
Provision for income taxes	4,448	19,903	4,412
Net income	\$ 39,240	\$ 16,571	\$ 25,489
Earnings per share:			
Basic	\$ 5.11	\$ 2.15	\$ 3.29
Diluted	\$ 5.06	\$ 2.13	\$ 3.25
Weighted average shares outstanding:			
Basic	7,673	7,700	7,746
Diluted	7,753	7,794	7,832

Net Income /  
# Shares

\$39,240 /  
7,753

## Lecture 6: Gross Profit:

**Gross Profit:** It is the profit a business makes after **subtracting** all the **costs that are related to manufacturing and selling its products or services**

Example:

Real-world Gross Profit example		Tesla, Inc.	
		Consolidated Statements of Operations	
		(in millions, except per share data)	
		2020	
<b>Revenues</b>			
Automotive sales	\$	26,184	
Automotive leasing		1,052	
Total automotive revenues		27,236	
Energy generation and storage		1,994	
Services and other		2,306	
<b>Total revenues</b>		<b>31,536</b>	
<b>Cost of revenues</b>			
Automotive sales		19,696	
Automotive leasing		563	
Total automotive cost of revenues		20,259	
Energy generation and storage		1,976	
Services and other		2,671	
<b>Total cost of revenues</b>		<b>24,906</b>	
<b>Gross profit</b>		<b>6,630</b>	

$$\begin{aligned}\text{Gross Profit} &= \\ \$31,536 - \$24,906 &= \\ \$6,630\end{aligned}$$

Gross Profit = Total revenue - Total Cost of revenue (Cost Incurred to generate the revenue)

Real-world Gross Profit example			
		2020	
<b>Revenues</b>			
Automotive sales	\$	26,184	
Automotive leasing		1,052	
Total automotive revenues		27,236	
Energy generation and storage		1,994	
Services and other		2,306	
<b>Total revenues</b>		<b>31,536</b>	
<b>Cost of revenues</b>			
Automotive sales		19,696	
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Total automotive cost of revenues		20,259	
Energy generation and storage		1,976	
Services and other		2,671	
<b>Total cost of revenues</b>		<b>24,906</b>	
<b>Gross profit</b>		<b>6,630</b>	

# of units sold  
X  
selling price per unit

# of units sold  
X  
cost per unit

Total Cost of Revenue is also known as Cost of Goods Sold:

### Real-world Gross Profit example

2020		Tesla, Inc.	
<b>Revenues</b>		<b>Consolidated Statements of Operations</b> (in millions, except per share data)	
Automotive sales	\$ 26,184		
Automotive leasing	1,052		
Total automotive revenues	27,236		
Energy generation and storage	1,994		
Services and other	2,306		
<b>Total revenues</b>	<b>31,536</b>		
<b>Cost of revenues</b>			
Automotive sales	19,696		
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Total automotive cost of revenues	20,259		
Energy generation and storage	1,976		
Services and other	2,671		
<b>Total cost of revenues</b>	<b>24,906</b>		
<b>Gross profit</b>	<b>6,630</b>		

Also known as  
"cost of sales",  
"cost of goods sold", or  
"cost of services sold"

#### Total cost of Revenue includes:

Cost of automotive sales revenue includes **direct parts**, **material and labor costs**, **manufacturing overhead**, including **depreciation costs of tooling and machinery**, **shipping and logistic costs**, **vehicle connectivity costs**, **allocations of electricity and infrastructure costs related to our Supercharger network**, and **reserves for Cost of automotive sales revenues** also includes adjustments to warranty expense and charges to write down the carrying value of our inventory when it exceeds its estimated net realizable value and to provide for obsolete and on-hand inventory in excess of forecasted demand.

$$\text{Gross Profit Margin\%} = \frac{\text{Total Revenue}}{\text{Gross Profit}}$$

### Gross Profit Margin %

2020		Tesla, Inc.	
<b>Revenues</b>		<b>Consolidated Statements of Operations</b> (in millions, except per share data)	
Automotive sales	\$ 26,184		
Automotive leasing	1,052		
Total automotive revenues	27,236		
Energy generation and storage	1,994		
Services and other	2,306		
<b>Total revenues</b>	<b>31,536</b>		
<b>Cost of revenues</b>			
Automotive sales	19,696		
Automotive leasing	563		
Total automotive cost of revenues	20,259		
Energy generation and storage	1,976		
Services and other	2,671		
<b>Total cost of revenues</b>	<b>24,906</b>		
<b>Gross profit</b>	<b>6,630</b>		

$$\frac{\$6,630}{\$31,536} = 21\%$$

### Gross Profit Margin %

2020		FACEBOOK, INC.	
<b>Revenue</b>		<b>CONSOLIDATED STATEMENTS OF INCOME</b> (In millions, except per share amounts)	
Revenue	\$ 85,965		
<b>Costs and expenses:</b>			
Cost of revenue	16,692		
Research and development	18,447		
Marketing and sales	11,591		
General and administrative	6,564		
<b>Total costs and expenses</b>	<b>53,294</b>		
<b>Income from operations</b>	<b>32,671</b>		
Interest and other income, net	509		
Income before provision for income taxes	33,180		
Provision for income taxes	4,034		
<b>Net income</b>	<b>29,146</b>		

Gross Profit =  
\$85,965 - \$16,692 =  
\$69,273

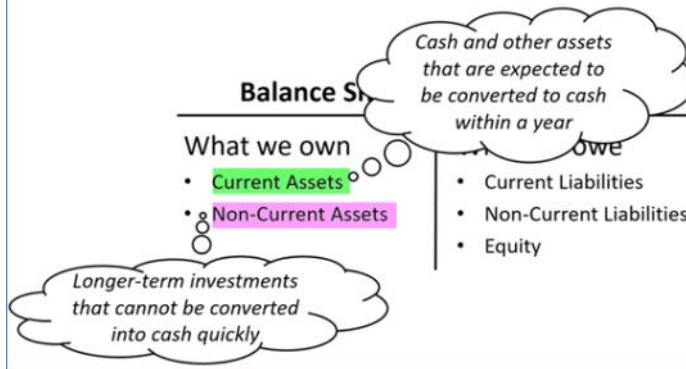
$$\text{GP\%} = \frac{\$69,273}{\$85,965} = 81\%$$

## Lecture 7: Balance Sheet:

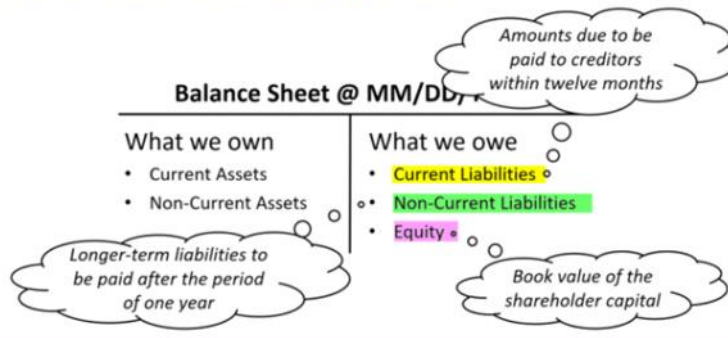
#### Balance Sheet:

- A financial statement that reports a company's **assets**, **liabilities**, and **shareholder equity** at a **specific point in time**.
- Balance sheets provide the basis for **computing rates of return for investors** and **evaluating a company's capital structure**
- **Ex: It is like camera - specific point in time**

## Balance sheet categories



## Balance sheet categories



Example:

Balance Sheet of Walmart:

It follows Account rules i.e.:

$$\text{Asset} = \text{Liability} + \text{Equity}$$

<b>Walmart</b>		January 31st, 2020	
		In billion \$	
Assets		Liabilities	
Current	61.8	Current	77.8
Non-Current	174.7	Non-Current	77.1
		Equity	81.6
<b>Total</b>	<b>236.5</b>	<b>Total</b>	<b>236.5</b>

In depth analysis of Balance Sheet:

Walmart Balance Sheet @ January 31 <sup>st</sup> , 2020	
<b>ASSETS</b>	
<b>Current assets:</b>	
Cash and cash equivalents	\$ 9,465
Receivables, net	6,284
<b>Inventories</b>	<b>44,435</b>
Prepaid expenses and other	1,622
<b>Total current assets</b>	<b>61,806</b>
<b>Property and equipment, net</b>	<b>105,208</b>
Operating lease right-of-use assets	17,424
Finance lease right-of-use assets, net	4,417
Property under capital lease and financing obligations	—
<b>Goodwill</b>	<b>31,073</b>
Other long-term assets	16,567
<b>Total assets</b>	<b>\$ 236,495</b>
<b>LIABILITIES AND EQUITY</b>	
<b>Current liabilities:</b>	
Short-term borrowings	\$ 575
<b>Accounts payable</b>	<b>48,973</b>
Accrued liabilities	22,296
Accrued income taxes	280
Long-term debt due within one year	5,362
Operating lease obligations due within one year	1,793
Finance lease obligations due within one year	511
Capital leases and financing obligations due within one year	—
<b>Total current liabilities</b>	<b>77,790</b>
<b>Long-term debt</b>	<b>43,714</b>
Long-term operating lease obligations	16,171
Long-term finance lease obligations	4,307
Long-term capital lease and financing obligations	—
Deferred income taxes and other	12,961
<b>Commitments and contingencies</b>	<b>—</b>
<b>Equity:</b>	
Common stock	284
Capital in excess of par value	3,247
Retained earnings	83,943
Accumulated other comprehensive loss	(12,805)
<b>Total Walmart shareholders' equity</b>	<b>74,669</b>
Noncontrolling interest	6,883
<b>Total equity</b>	<b>81,552</b>
<b>Total liabilities and equity</b>	<b>\$ 236,495</b>

Properties and Equipment useful life:

<i>(Amounts in millions)</i>	<b>Estimated Useful Lives</b>
Land	N/A
Buildings and improvements	3-40 years
Fixtures and equipment	1-30 years
Transportation equipment	3-15 years
Construction in progress	N/A

## Lecture 1: Accruals

### Accruals:

- ◆ Accounting method that records **revenues** and **expenses** when **they are incurred**, regardless of when cash is exchanged.
- ◆ The term "**accrual**" refers to **any individual entry recording revenue or expense in the absence of a cash transaction**.
- ◆ "**Accruals**" are recorded on a **balance sheet** as either an **asset** or a **liability**

### There are two type of Accruals:

#### I. Expense Accruals

(**Please Note:** If **accrued expenses** are recorded correctly, the balance should be a **credit** balance. This is because **accrued expenses** are **liabilities**)

#### II. Revenue Accruals

(**Please Note:** **Accrued revenue** is typically recorded as a **debit** to an "**accrued revenue**" account and a credit to a "sales" or "revenue" account, and the amount of accrued revenue is adjusted periodically to reflect the current amount of revenue that has been earned but not yet received.)

**Accruals: your CFO's recurring question!**

*"Quarter-end is near.... Do you have any accruals that need to be included?"*

**Expense accruals**  
expenses that have been incurred for which we have not yet received an invoice from a supplier



**Revenue accruals**  
goods or services that we have delivered for which we have not yet billed the customer

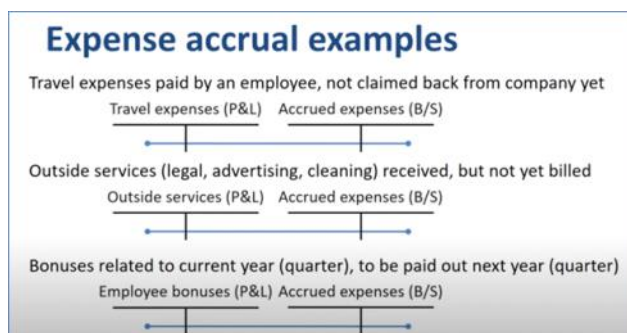
### Expense Accruals: (CR)

- **Definition:** Expense accrual is a component of accrual accounting where **expenses are recognized on the income statement** when they are incurred, regardless of when the actual payment is made.

**Purpose:** The **purpose of expense accrual is to match expenses with the revenues they generate**. This helps in presenting a more accurate picture of a company's financial performance during a specific accounting period.

**Process:** **When expenses are incurred but not yet paid by the end of the accounting period**, they are **accrued**. This involves recognizing the expenses in the income statement and creating a corresponding liability on the balance sheet, often in an account called "Accrued Expenses" or a similar name.

**Example:** Suppose a company receives a utility bill for services provided in December but doesn't make the payment until January. To accurately reflect the company's financial position in December, an expense accrual is made. The utility expense is recognized in December's income statement, and an accrued expense liability is recorded on the balance sheet.



### More Example of Expense Accruals:

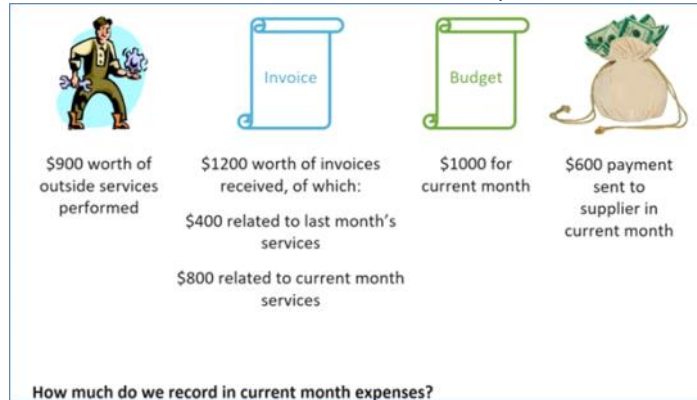
**Ques:** This month an outside company performed service of \$900 of maintenance work.

Also, we have received an invoice of \$1200. Where \$400 is related to last month service and \$800 is related to current month service.

This month company budget is \$1000.

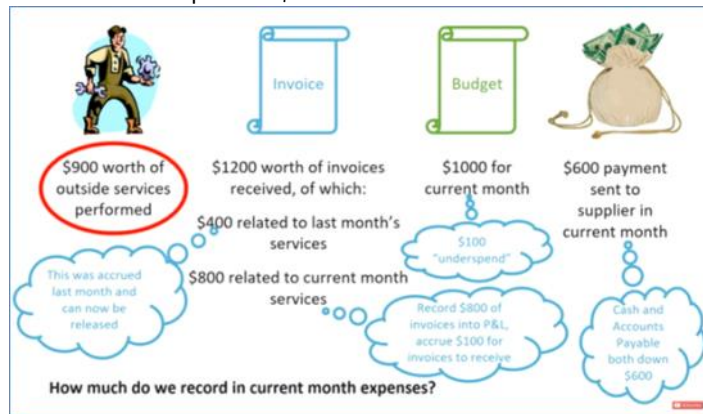
Company already spend \$100 to supplier in the current month.

So how much do we record in current month Expense ?



**Solution:**

- Current month expense is \$900.



- Last month expense was recorded as \$400 billed by outside service company

DR	CR
Outside service : \$400 (Expenses A/C)	Accruals Expense : (\$400) (Liabilities A/C)

- This month (Above transaction is reclassified in Liabilities A/C):

DR	CR
Accruals Expense : \$400 (Liabilities A/C)	Account Payable : (\$400) (Liabilities A/C)

Also, this month expenses is \$800 billed by billed by outside service company:

DR	CR
Outside service : \$800 (Expenses A/C)	Accruals Expense : (\$800) (Liabilities A/C)

Hence  $\$400 + \$800 = \$1,200.00$  amount bill is invoiced by the outside service company. But still \$100 of Outside service company work, which bill has not been received

- For \$100 of Outside service company work, which bill has not been received

DR	CR
Outside service : \$100 (Expenses A/C)	Accruals Expense : (\$100) (Liabilities A/C)

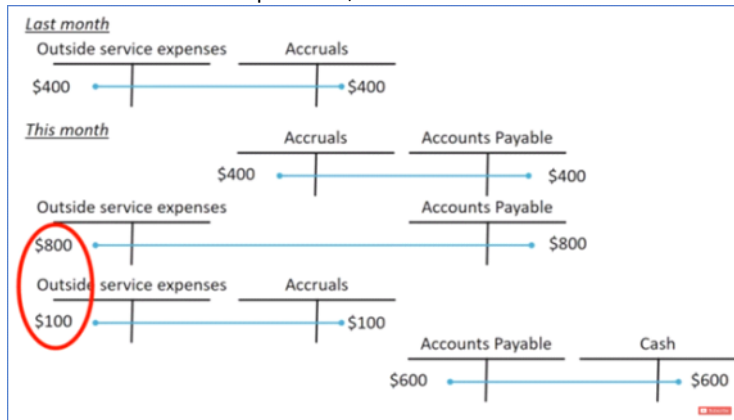
- Actual amount payment \$600 send to supplier:

DR	CR
----	----

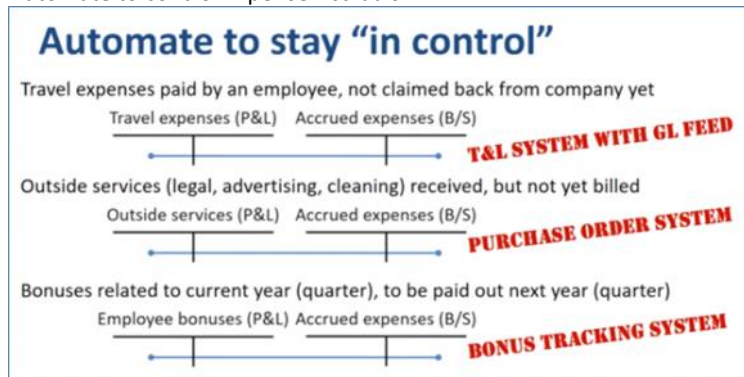


Account Payable : \$600 (Liabilities A/C)	Cash : (\$600) (Asset A/C)
--	-------------------------------

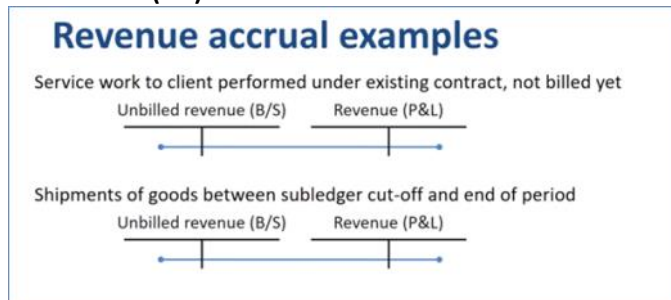
- Hence current month expense is \$900



Automate to control Expense Accruals:



## Revenue Accruals: (DR)



- **Revenue accruals** are a component of accrual accounting where revenues are recognized on the income statement when they are earned or realized, rather than when the cash is received.
- This means that revenue is recognized in the financial statements when the goods or services are delivered, regardless of when the payment is actually received.

Here's how revenue accruals work:

- ✓ **Recognition of Revenue:** Under accrual accounting, revenue is recognized when it is earned, meaning that the company has fulfilled its obligations to deliver goods or services to the customer.
- ✓ **Timing of Cash Receipt:** The actual receipt of cash may occur later than the recognition of revenue. This delay could be due to credit terms, where customers are allowed to pay at a later date.
- ✓ **Accrual Entry:** To match revenues with the periods in which they are earned, companies make revenue accrual entries. This involves recognizing the revenue in the income statement and creating a corresponding asset on the balance sheet, often in an account called "Accrued Revenue" or a similar name.
- ✓ **Adjustment when Cash is Received:** When the cash is received, the previously accrued revenue is adjusted. The accrued revenue account is decreased, and the cash account is increased to reflect the actual receipt of funds.

### Example:

Suppose a company provides services to a customer in December but does not receive payment until January. In December, the company would make a revenue accrual entry, recognizing the revenue in that month even though the cash hasn't been received. In January, when the cash is received, the accrued revenue account is adjusted to reflect the actual cash transaction.

Revenue accruals help ensure that financial statements provide a more accurate representation of a company's financial performance during a specific period by aligning revenues with the period in which they are earned, not just when cash is received.

### Difference between Accruals accounting and Account Payable:

- ◇ Accrual accounting is a method of recognizing revenues and expenses when they are incurred, regardless of when cash is exchanged.
- ◇ Accounts payable, on the other hand, is a specific account on the balance sheet that represents the amount a company owes to its creditors for goods and services received on credit.
- ◇ Accounts payable is a component of the accrual accounting system because it reflects the amounts that have been accrued but not yet paid.

### Difference between Expense Accrual and Account Payable:

1. Expense Accrual:
  - Timing: Expense accrual involves recognizing expenses in the financial statements before the actual payment is made. This means that the expense is recorded when it is incurred, regardless of when the payment occurs.
  - Entry: A journal entry is made to recognize the expense as an accrual. The entry typically involves debiting an expense account and crediting a liability account (accrued liabilities or a similar account).
  - Example: If a company incurs expenses, such as utilities or rent, in a particular month but doesn't pay the bills until the following month, it would record the expense accrual in the month when the costs were incurred.
2. Accounts Payable:
  - Timing: Accounts payable, on the other hand, is the actual amount of money a company owes to its suppliers or vendors for goods and services received but not yet paid for.
  - Entry: When a company receives goods or services on credit, an accounts payable liability is created. The entry involves debiting an expense account (such as supplies, services, or inventory) and crediting the accounts payable account.
  - Example: If a company receives a shipment of inventory on credit, it would increase its accounts payable until the invoice is paid.

In summary, the key difference lies in the timing of recording expenses and the associated accounting entries. Expense accrual recognizes expenses when they are incurred, regardless of payment timing, and involves creating a liability. Accounts payable, on the other hand, represents the actual amounts owed for goods and services received on credit, and it is recorded when the company has a legal obligation to pay. While both involve recognizing expenses, they serve different purposes in the financial reporting process.

### Difference between Revenue Accrual and Account Receivables:

1. Revenue Accrual:
  - Definition: Revenue accrual involves recognizing revenue in the financial statements when it is earned or realized, even if the payment has not been received.
  - Timing: The accrual is made when the company fulfills its obligations to deliver goods or services, indicating that revenue has been earned.
  - Accounting Entry: In the accrual accounting process, an adjusting entry is made to recognize the revenue in the income statement and create a corresponding asset on the balance sheet (often called "Accrued Revenue" or "Unearned Revenue" depending on whether the revenue is earned in advance or not yet earned).
2. Accounts Receivable:
  - Definition: Accounts receivable is an asset account on the balance sheet that represents the amounts owed to a company by customers for goods or services that have been delivered but not yet paid for.
  - Timing: Accounts receivable arise when a sale is made on credit, and payment is expected to be received in the future.
  - Accounting Entry: When the sale occurs, the revenue is recognized in the income statement, and a corresponding increase is made to accounts receivable. When the customer pays, the accounts receivable balance is reduced, and the cash account is increased.

#### Key Differences:

- Timing: Revenue accrual occurs at the point when the revenue is earned, while accounts receivable represent amounts expected to be received in the future.
- Recording Location:
  - ✓ Revenue accrual affects both the income statement (by recognizing revenue) and the balance sheet (by creating an asset or liability).
  - ✓ Accounts receivable, on the other hand, is solely a balance sheet item.
- Nature: Revenue accrual deals with recognizing revenue regardless of cash receipt, while accounts receivable specifically deals with amounts owed by customers.

In summary, revenue accrual is part of the process of recognizing revenue when it is earned, and it involves both the income statement and the balance sheet. Accounts receivable, on the other hand, is solely a balance sheet item representing amounts yet to be collected from customers for goods or services already provided.



### 3. Prepaid & Suspense AC

Sunday, January 28, 2024 10:53 AM

## Lecture 1: Suspense Account:

### Suspense Account:

- A suspense account is an account used to temporarily store transactions for which there is uncertainty about where they should be recorded.
- Once the accounting staff investigates and clarifies the purpose of this type of transaction, it shifts the transaction out of the suspense account and into the correct account(s)
- Ideally, the best balance for the suspense account balance to \$0.

**Suspense account overview**

- 1) Suspense account as "waiting account" for unclassified transactions
- 2) Suspense account as "plug" account to balance the trial balance
- 3) Suspense account as (proactive) control procedure

**CONTROL RISK!**

#### I. Suspense account as 'Waiting account' for unclassified transaction:

**Bank entry example #4: suspense**

18-09-2017	Nazim: Vodafone-L.Bartal EV Ordnungsbefehl: K1001 Nr	IC	40,87
18-09-2017	Nazim: Brussels Airlines Ordnungsbefehl: 614563486	GT	170,58
07-09-2017	Nazim: GlobalCollect Ordnungsbefehl: 267628977623	GT	650,60
10-08-2017	Nazim: GlobalCollect Ordnungsbefehl: 403420524445	GT	77,92

→

<b>Cash: ING bank account</b>	<b>Suspense Account</b>	<b>Office Supplies</b>
77.92	77.92	77.92

#### II. Suspense account as 'plug' for Trail Balance:

Suspense account can be used to balance the trail balance/general ledger for a while later we need find the error in general ledger to fix the issue and make suspense a/c balance \$0:

**Suspense account as "plug" for trial balance**

Trial balance			
A 200	E 135		
B 120	F 412		
C 470	G 298		
D 210	H 152		
Sum: 1000	Sum: 997		

Suspense account: 3

Sum: 1000	Sum: 1000
-----------	-----------

**Start the error review and correction process!**

#### i. Suspense Account as Control Mechanism:

- When suspense account is used to control risk?

**When is a suspense account a control risk?**

- If used frequently – high transaction volume
- If journal entry amounts are high
- If there is complicated account activity
- If items stay unresolved for a long time
- If balance is not zero at end of reporting period
- If no formal procedure is in place to resolve open items

**Incorrect use of suspense accounts could lead to material accounting misstatements or be a sign of fraud!**

#### Method 1:

**Suspense account as control mechanism**

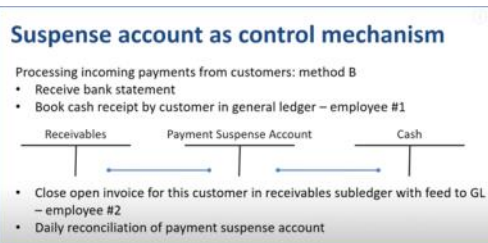
Processing incoming payments from customers: method A

- Receive bank statement
- Book cash receipt by customer in general ledger

Receivables	Cash

- Close open invoice for this customer in receivables subledger (no feed to GL)
- Periodically reconcile receivables amount in subledger to receivables GL acct

#### Method 2:



## Lecture 2: Prepaid Expense:

### Prepaid Expense:

- A prepaid expense is an expenditure for goods or services that a company pays for in advance of receiving the actual benefits.
  - Essentially, it represents a payment for future expenses, and the cost is recorded as an asset on the balance sheet until the benefit is realized.
  - Over time, as the prepaid expense is consumed or utilized, it is gradually recognized as an expense on the income statement.
- As per accounting, Expenses should be recorded during the period in which they are incurred
- **Prepaid expenses:** a balance sheet account (asset) representing the right to receive future services that have already been paid for but not "consumed"



### Example 1:

Newspaper subscription is billed for 24 months from date 01.06.2017 to 31.05.2019

### Prepaid expenses in a small business

Omschrijving	Bedrag (EUR)	Cash (bank account)	Prepaid expenses
FD Totaal		848.11	848.11
Van 01.06.2017 tot en met 31.05.2019			
Abonnement : twee jaar	1 ex.		
Bedrag	859.91		
Korting Aut. Inc.	-11.80		
BTW 6.00%	50.89		
Totaal bruto	899.00		
	848.11		
	EUR 899.00		
€848.11 for 24 months			
= ~€35.34 per month			
		2017: 7 months	247.37
		2018: 12 months	424.06
		2019: 5 months	176.68
		Σ debits	848.11
		Σ credits	848.11
		Remaining	0

### Example 2:



Monthly subscription(Insurance) on item is \$150. Hence for a year subscription is \$1800.  
But if we take whole year subscription in advance, then discounted amount needed to be pay \$1764

## Nominal vs effective discount rate

### Monthly charge

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150

A) Pay monthly  $12 * \$150 = \$1800$ , or B) pay full year in advance \$1764  
 Nominal discount =  $\$1800 - \$1764 = \$36$  (2% of \$1800)

### Month end "remaining outstanding debt"

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
\$1650	\$1500	\$1350	\$1200	\$1050	\$900	\$750	\$600	\$450	\$300	\$150	\$0

Effective discount rate = discount / average debt =  $\$36 / \$900 = 4\%$

Prepaid accounting calculation:

### Prepaid insurance (year to month)

Cash (bank account)	Prepaid expenses	Insurance expense
\$1764	\$1764	
	\$147	\$147
	Repeat monthly	
	\$147	\$147
	Σ debits \$1764	
	Σ credits \$1764	
	Remaining 0	

Example 3:

## Prepaid expenses in the corporate world

*The Coca-Cola Company*

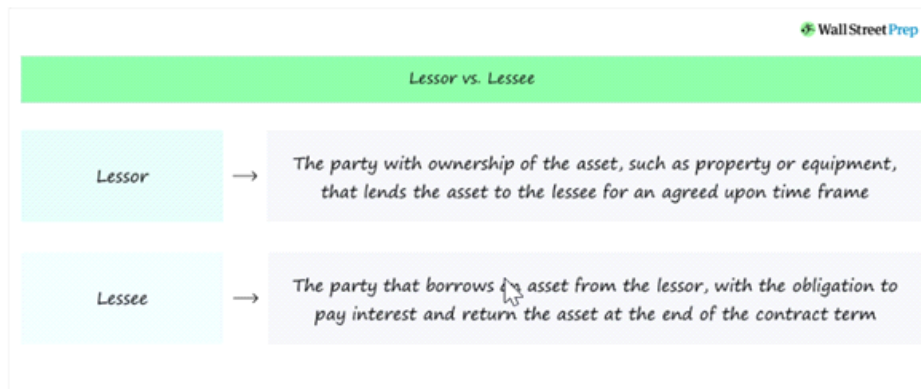
December 31,	2016
(in millions except per value)	
<b>ASSETS</b>	
CURRENT ASSETS	
Cash and cash equivalents	\$ 8,555
Short-term investments	9,895
<b>TOTAL CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS</b>	<b>18,450</b>
Marketable securities	4,054
Trade accounts receivable, less allowances of \$466 and \$352, respectively	3,856
Inventories	2,678
<b>Prepaid expenses and other assets</b>	<b>2,481</b>
Assets held for sale	2,797
<b>TOTAL CURRENT ASSETS</b>	<b>34,010</b>
EQUITY METHOD INVESTMENTS	16,260
OTHER INVESTMENTS	989

Includes (but not limited to)  
 "advance payments to  
 certain customers, for  
 distribution rights as well as  
 to fund future marketing  
 activities.... Our Company  
 expenses such payments  
 over the periods benefited"

## 4. Loan & Leases

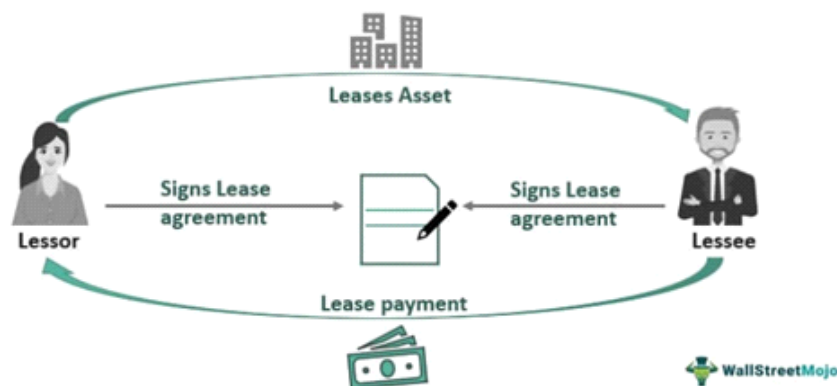
Sunday, January 28, 2024 7:18 PM

### 1. Lessor vs Lessee:



### Lessor

"A lessor is an individual or entity that leases out an asset such as a land, house, building or machinery to another person or organization for a certain period."



### 2. Type of Leasing:

### Lessor



The three main types of leasing are finance leasing, operating leasing and contract hire.

## 1. Finance leasing

- A long-term lease over the expected life of the equipment, usually three years or more, after which you pay a nominal rent or can sell or scrap the equipment - the leasing company will not want it any more.
- The **leasing company recovers the full cost of the equipment**, plus charges, **over the period of the lease**.
- **Although you don't own the equipment**, **you are responsible for maintaining and insuring it**.
- You must **show the leased asset on your balance sheet as a capital item**, or an item that has been bought by the company.
- **Leases** of over **seven years**, and in some cases over **five years**, are known as '**long funding leases**' under which **you can claim capital allowances** as if you had bought the asset outright.

For detailed guidance on tax and leasing, see [acquire assets and borrow money tax efficiently](#). You can also read HM Revenue & Custom's [Business Leasing Manual](#).

## 2. Operating leasing

If you are considering operating leasing, remember the following points:

- it is useful if you don't need the equipment for its entire working life
- the **leasing company will take the asset back at the end of the lease**
- the **leasing company is responsible for maintenance and insurance**
- you **don't** have to show the **asset on your balance sheet**

## 3. Contract hire

Contract hire is often used for company cars and:

- the **leasing company takes some responsibility for management and maintenance**, such as repairs and servicing
- you don't have to show the asset on your balance sheet

<https://www.wallstreetmojo.com/lessor/>

Benchmark	Finance Lease	Operating Lease
What is it?	A commercial contract in which the lessor allows the lessee to use an <a href="#">asset</a> in favour of regular payments for a usually long period.	A commercial contract in which the lessor allows the lessee to use an asset in favour of regular payments for a usually short period.
Duration	It is a long-term contract	It is a short-term contract
Owner	Ownership is transferred to the lessee (owner of an asset that is rented or leased).	Ownership remains with the lessor (legal owner of the asset).
This lease is also called	Capital lease	Rental lease
The risk of obsolescence lies on the part of the	Lessee	Lessor
Who takes care of or maintains the asset?	Lessee	Lessor
Cancellation of the lease	Can only be done on the occurrence of a specific event.	Can be done at any time.
In this lease, is the bargain purchase or purchasing option given?	Yes. In this lease, the purchasing option is given.	No. In this lease, no such option is given.

From <https://www.shiksha.com/online-courses/articles/difference-between-finance-lease-and-operating-lease/>



# Termination Type

Thursday, July 25, 2024 7:17 PM

## 1. Rule of 78:

- The Rule of 78 is a method used to calculate the interest on a loan, typically short-term loans or installment loans, in which the interest is front-loaded.
- This means that more interest is paid at the beginning of the loan term, and less interest is paid as the loan progresses.
- It gets its name from the sum of the digits of the first twelve months of the year ( $1 + 2 + 3 + \dots + 12 = 78$ ).

Here's a simple explanation of how it works:

1. **Total Interest Calculation:** First, calculate the total interest that will be paid over the life of the loan.
2. **Sum of Digits:** For a 12-month loan, sum the digits from 1 to 12. This equals 78. For loans with different terms, sum the digits from 1 to the number of months in the loan term.
3. **Monthly Interest Allocation:**
  - Each month's interest is a fraction of the total interest.
  - For a 12-month loan, the first month's interest is  $12/78$  of the total interest, the second month's interest is  $11/78$ , and so on, with the last month's interest being  $1/78$ .
4. **Higher Early Payments:** Because more interest is allocated to the earlier payments, if you pay off the loan early, you will end up paying more interest than you would with a simple interest loan.

### Example

- Loan Amount: \$10,000
- Total Interest: \$1,200
- Loan Term: 12 months

#### Step 1: Sum of the Digits

For a 12-month loan, sum the digits from 1 to 12:  $1+2+3+4+5+6+7+8+9+10+11+12 = 78$

#### Step 2: Monthly Interest Allocation

Each month's interest is calculated as a fraction of the total interest, using the sum of the digits.

#### Interest Allocation:

- Month 1:  $\frac{12}{78} \times 1,200 = 184.62$
- Month 2:  $\frac{11}{78} \times 1,200 = 169.23$
- Month 3:  $\frac{10}{78} \times 1,200 = 153.85$
- Month 4:  $\frac{9}{78} \times 1,200 = 138.46$
- Month 5:  $\frac{8}{78} \times 1,200 = 123.08$
- Month 6:  $\frac{7}{78} \times 1,200 = 107.69$
- Month 7:  $\frac{6}{78} \times 1,200 = 92.31$
- Month 8:  $\frac{5}{78} \times 1,200 = 76.92$
- Month 9:  $\frac{4}{78} \times 1,200 = 61.54$
- Month 10:  $\frac{3}{78} \times 1,200 = 46.15$
- Month 11:  $\frac{2}{78} \times 1,200 = 30.77$
- Month 12:  $\frac{1}{78} \times 1,200 = 15.38$

#### Total Interest Allocation:

$184.62 + 169.23 + 153.85 + 138.46 + 123.08 + 107.69 + 92.31 + 76.92 + 61.54 + 46.15 + 30.77 + 15.38 = 1,200.0$

#### Step 3: Monthly Payment Calculation

Assuming equal principal repayment each month, the monthly principal repayment for a \$10,000 loan over 12 months is:

$$\frac{10,000}{12} = 833.33$$

**Total Monthly Payment Calculation:** Monthly Payment=Principal Repayment + Monthly Interest

#### Monthly Payments:

- Month 1:  $833.33 + 184.62 = 1,017.95$
- Month 2:  $833.33 + 169.23 = 1,002.56$
- Month 3:  $833.33 + 153.85 = 987.18$
- Month 4:  $833.33 + 138.46 = 971.79$
- Month 5:  $833.33 + 123.08 = 956.41$
- Month 6:  $833.33 + 107.69 = 941.02$
- Month 7:  $833.33 + 92.31 = 925.64$
- Month 8:  $833.33 + 76.92 = 910.25$
- Month 9:  $833.33 + 61.54 = 894.87$
- Month 10:  $833.33 + 46.15 = 879.48$

- Month 11:  $833.33 + 30.77 = 864.10$

- Month 12:  $833.33 + 15.38 = 848.71$

This method results in higher initial payments and lower payments towards the end. If the loan is paid off early, more interest has already been paid compared to a simple interest loan, making the Rule of 78 less favorable for early repayment

This method results in paying more interest in the initial months and less towards the end, making early repayment less beneficial compared to a loan with simple interest.