

ACCOUNTING EQUATION:

It's a mathematical equation which shows the assets and liabilities of a firm are equal;

Based on DUAL ASPECT CONCEPT of accounting

Every transaction has two aspects- debit and credit: it means, total claim will always equal the total assets of the firm.

EQUITIES: the total claim of the firm is also known as equities, equities are of two types;

- Owners equity or capital
- Outsiders equity (amounts due to outsiders)

ASSETS = EQUITIES

or

ASSETS = LIABILITIES + CAPITAL

EFFECTS OF TRANSACTION ON ACCOUNTING EQUATION:

A transaction affect either both sides by same amount or one side only, it can be divided into two are;

- Transactions affecting two items,
- Transaction affecting more than two items

TRANSACTION AFFECTING TWO ITEMS:

Transaction affecting **opposites sides** are:

- Increase in asset, increase in liability.
Eg, credit purchase
- decrease in liability, decrease in asset.
eg, payment to a creditor
- Increase in asset, increase in owners capital.
eg, introduction of capital
- Decrease in owners capital, decrease in asset.
eg, drawing by proprietor

TRANSACTION AFFECTING SAME SIDE BUT IN OPPOSITE DIRECTION:

- Increase in asset, decrease in another asset.
eg, cash purchase, receipt from debtor
- Decrease in liability, increase in another liability.
eg, settlement of creditor by issue of bill of exchange

TRANSACTION AFFECTING MORE THAN TWO ITEMS:

eg, sale is made in cash for rs 30000
cost of product = 25000
add profit = 5000

sale =

Accounting equation; stock of goods - reduced by 25000
cash increased by 30000 and,
owners capital increases by 5000

Process of preparing accounting equation:

- Analyze transaction ; assets, liability, capital, revenue, expense.
- Decide effect; increase or decrease
- Record the effect

Lets take some examples to explain;

- Bahan commences his business with rs 20000 as a capital.

ASSETS = LIABILITIES + CAPITAL

Cash			
20000	=	0	+ 20000

- Purchase furniture for rs 5000 in cash

ASSETS = LIABILITIES + CAPITAL

Cash	furniture		
20000			
-5000	+ 5000	=	0 + 20000

Question 1)

Prepare accounting equation from following transactions:

- Sachin started business and introduced capital 100000 in cash.
- Purchased goods in cash 50000.
- Purchased furniture from samrat furnitures 20000Rs.
- Sold goods costing Rs 25000 for Rs 35000 against cash.

5) Paid samrat furnitures in cash.

Solution:

No	transaction	asset	=	liabilities + capital
1.	sachin started business	1,00,000	= 0	+ 1,00,000
2.	purchased goods	+50000 -50000		
	New equation	1,00,000	= 0	+ 1,00,000
3.	Purchased furniture from samrat + 20000		= 20000	+ -
	New equation	1,20,000	= 20,000	+ 1,00,000
4.	sales goods cost 25000 for Rs 35000	-25000 +35000	= -	+10,000
	New equation	1,30,000	= 20,000	+ 1,10,000
5.	Paid samrat	-20000	= -20000	+ 1,10,000
	New equation	1,10,000	= 0	+ 1,10,000

Question 2)

Prepare accounting equation on the basis of following;

- 1) Started business with cash Rs 70000.
- 2) Credit purchases of goods Rs 18000.
- 3) Payment made to creditors in full settlement Rs 17500.
- 4) Purchase of machinery for cash Rs 20000.

Solution:

No	transaction	asset cash + goods + machine	=	liabilities + capital = creditor
1.	Started business	70,000	= 0	+ 70,000
2.	credit purchase goods	- + 18000	= 18000	+ -
	New equation	70,000+ 18,000	=18000	+ 70000
3.	Payment full settlement -17,500 + -		=-18000	+ 500
	New equation	52,500 + 18000	= 0	+ 70,500
4.	purchase machine	- 20000 + 0 + 20000	= 0	+ 70,500
	New equation	32,500 + 18000 + 20000	= 0	+ 70,500

Question 3)

Rakesh started a business as on 1st april, 2016. with a capital of Rs 1,50,000 during the year, the following transaction took place:

Rs

- 1) Furniture purchased of cash. 20,000
- 2) Purchased goods from mahesh on credit 25,000
- 3) Sold goods costing Rs 10,000 to mohan for cash 14,000
- 4) Additional capital introduced 20,000
- 5) Commission received in advance 2000
- 6) Paid to creditor mahesh Rs 22,500 in full settlement.
- 7) Sold goods costing Rs 15,000 for Rs 18,000 out of which Rs 5000 received in cash.
- 8) Depreciation on furniture provided @10%

Solution:

No	transaction	assets cash + furniture + stock + debtor	=	capital + liabilities creditors + comm. Rec. in adv
1.	Started business	1,50,000	= 1,50,000	+ -
2.	Furniture purchased	-20,000 + 20,000	= -	+ -
	New equation	1,30,000 + 20,000	= 1,50,000	+ -
3.	Purchased goods			
	From mahesh	0 + 0 + 25,000	= 0	+ 25,000
	New equation	1,30,000 + 20,000 + 25000	= 1,50,000	+ 25000
4.	Sold goods costing 10,000 for Rs 14,000	+14,000 + - 0 -10,000	= +4000	+ 0
	New equation	1,44,000 + 20,000 + 15000	= 1,54,000	+ 25000
5.	Additional capital	20,000 + 0 + 0	= 20,000	+ 0
	New equation	1,64,000 + 20,000 + 15,000	= 1,74,000	+ 25,000
6.	Commission received	+2000 + 0 + 0	= 0	+ 0 + 2000
	New equation	1,66,000 + 20,000 + 15,000	= 1,74,000	+ 25,000 + 2000

7.paid to creditor 22,500

ADJUSTMENT TRANSACTIONS

treatment in accounting

- 2) **PREPAID EXPENSES:** expenses paid in advance

Treatment in accounting

- 3) **ACCRUED INCOME**: income earned but not received yet

Treatment in accounting equation

Add in capital

Create - asset side - name - accrued income.

4) ~~UNEARNED INCOME~~ INCOME RECEIVED IN ADVANCE; income has been received but not earned

Treatment in accounting equation

Add in cash

Create new column liability side name unearned income

Practice question.

- 1) Interest due but not received Rs 500
- 2) Rent received in advance Rs 1000
- 3) Insurance premium paid in advance Rs 1500
- 4) Salaries due but not paid Rs 2000

Solution.

Home work

Illustration 6. Prepare Accounting Equation of the following transactions and also the Balance Sheet:

1. Manu started business with cash.
Opened a Bank Account and transferred ₹ 4,00,000 from his Savings Account.
2. Purchased a building from Sohan for ₹ 12,00,000 paid by taking a loan from SBI.
3. Paid interest on loan ₹ 20,000 and instalment of ₹ 1,00,000.
4. Purchased goods from Rohan on credit.
5. Goods returned to Rohan costing
6. Sold goods costing ₹ 40,000 for ₹ 50,000 on credit to Ram.
7. Took goods from business for personal use.
8. Accrued interest.
9. Commission received in advance.
10. Cash received from Ram.

1,00,000

10,00,000

1,00,000

20,000

10,000

5,000

20,000

10,000

Solution: Solution on Page No. 5.11

Solution;

No transaction

asset

= capital + liability

	cash	+ bank	+ building	+ stock	+ debtor	+ accrued int		comm rec in adv	+ bank loan	+ creditor
1. started business with cash and bank	1,00,000	+ 4,00,000				= 5,00,000	+			
2. Purchased building on loan from SBI		-2,00,000	+ 12,00,000			= 0			+ 10,00,000	
New equation	1,00,000	+ 2,00,000	+ 12,00,000			= 5,00,000			+ 10,00,000	
3. Paid int and Installment	0	+ -1,20,000	+ 12,00,000			= - 20,000			+ -1,00,000	
New equation	1,00,000	+ 80,000	+ 12,00,000			= 4,80,000			+ 9,00,000	
4. Goods purchased on credit	0	+ 0	+ 0	+ 1,00,000		= 0		+ 0		+ 1,00,000
New equation	1,00,000	+ 80,000	+ 12,00,000	+ 1,00,000		= 4,80,000		+ 9,00,000		+ 1,00,000
5. Goods returned to Rohan	0	+ 0	+ 0	+ -20,000		= 0		+ 0		+ -20,000
New equation	1,00,000	+ 80,000	+ 12,00,000	+ 80,000		= 4,80,000		+ 9,00,000		+ 80,000
6. Sold goods cost 40,000 for 50,000 on credit	0	+ 0	+ 0	+ -40,000	+ 50,000	= 10,000		+ 0	+ 0	
New equation	1,00,000	+ 80,000	+ 12,00,000	+ 40,000	+ 50,000	= 4,90,000		+ 9,00,000		+ 80,000
7. drawing	0	+ 0	+ 0	+ -10,000	+ 0	= -10,000		+ 0		+ 0
new equation	1,00,000	+ 80,000	+ 12,00,000	+ 30,000	+ 50,000	= 4,80,000		+ 9,00,000		+ 80,000
8. Accrued income	0	+ 0	+ 0	+ 0	+ 0	+ 5000	= 5000		+ 0	+ 0
New equation	1,00,000	+ 80,000	+ 12,00,000	+ 30,000	+ 50,000	+ 5000	= 4,85,000		+ 9,00,000	+ 80,000
9. Comm. Rec.	+ 20,000	+ 0	+ 0	+ 0	+ 0	+ 0	= 0	+ 20,000	+ 0	+ 0
New equation	1,20,000	+ 80,000	+ 12,00,000	+ 30,000	+ 50,000	+ 5000	= 4,85,000	+ 20,000	+ 9,00,000	+ 80,000
10. Rec from ram	+ 10,000	+ 0	+ 0	+ 0	+ -10,000	+ 0	= 0	+ 0	+ 0	+ 0
New equation	1,30,000	+ 80,000	+ 12,00,000	+ 30,000	+ 40,000	+ 5000	= 4,85,000	+ 20,000	+ 9,00,000	+ 80,000

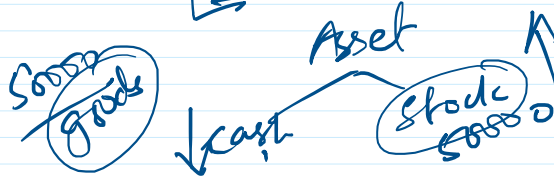
Solution :-

→ Increase in one Asset

Machinery purchase

Summary :-

> Increase in one Asset = Machinery purchase
 > Decrease another Asset = Furniture purchase
 > Stocks purchase



2nd = Inc in Asset = goods purchased
 Inc in liability on credit

3rd = Inc in cash Asset = cash introduced
 Inc in owner's capital in Business

4th = dec in Asset = paid to creditor
 dec in liability by cash.

5th = dec in Asset = cash/stock withdrawn for
 dec in owner's capital personal use

6th = Dec in liability = creditor paid
 Inc in Owners Capital through by owner's
 personal fund

7th = Inc in liabilities = o/s salary/Rent/wages
 dec in owner's capital Interest

Q = If Total Asset of a Business are Rs 200,000 and net worth (capital) is Rs 1,50,000. calculate creditors?

Sol

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

$$₹ 200,000 = ₹ 1,50,000 + ?$$

$$= 50,000 \text{ creditor}$$

Q = if the capital of a business ₹ 100,000 and outside liability are ₹ 60,000,

Ans = Total Assets = ?

Q from the following information Calculate total Asset of the Business

- Cap = ₹ 4,00,000
- Expenses incurred = ₹ 2,00,000
- Creditors = ₹ 3,00,000
- value of unsold stock = ₹ 20,000
- Rev Gained during the period = ₹ 7,50,000

Sol

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

$$? = 3,00,000 + 4,00,000 + \frac{7,50,000 - 2,00,000}{1}$$

$$= 5,50,000$$

Asset = 12,50,000

Q = A commenced his cloth business on 1st April 2016 with a capital of Rs 30,000. On 31st March 2017 his assets were Rs 50,000 and liabilities were Rs 10,000.

no assets were Rs 50,000 and liabilities were Rs 10,000.

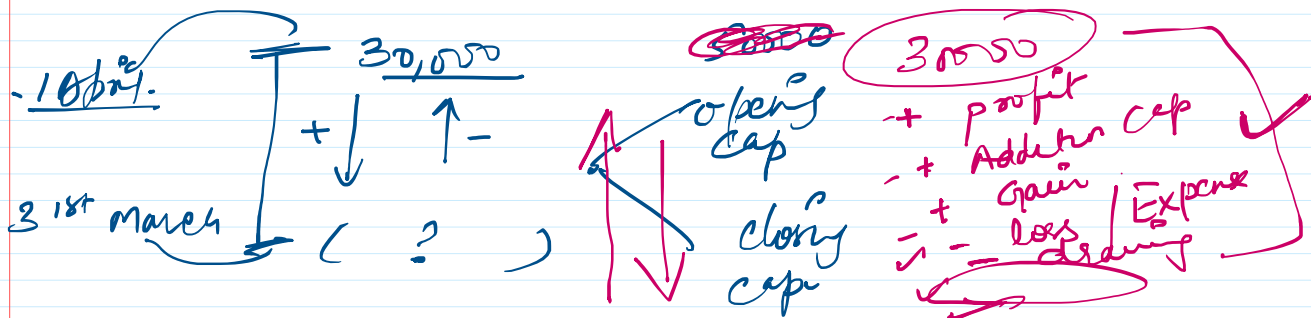
Find out his closing Capital and profit earned during the year.

for 1st April 2016
opening capital = 30,000

31st March 2017

Assets = 50,000

liab = 10,000.



$$\begin{aligned} \text{Total Assets} &= \text{cap} + \text{liab} \\ 50,000 &= ? + 10,000 \end{aligned}$$

$$\begin{aligned} &50,000 \\ &- 10,000 \\ &\hline &40,000 \end{aligned} \quad \begin{aligned} &\text{capital} \\ &\text{opening Capital} \\ &\text{diff } 10,000 - \text{profit} \end{aligned}$$

The final result, 40,000, is boxed and labeled 'closing'.