BASIC OF INVESTMENT
&
WEALTH CREATION

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INTRODUCTION TO INVESTMENT

•Savings and Investments form an Integral/Essential part of one's life.

•Investments refer to the employment of funds with the objective of earning a favorable return on them.

•In other words, investment is A Process, where Money is being utilized with the hope of making more money.

•Investment is the commitment of money that has been saved by deferring the consumption and purchasing an asset, either real (Land & Building, Gold, Silver, etc.) or financial (Shares, Debentures, Bonds, FDs, etc.) with an expectation that it could yield some positive future returns.

• There is a plethora (Excess or Abundance) of investment avenues, each associated with varied risk-return trade-offs (all the alternatives in making a decision where we give up something in order to get something).

• Every Investment avenue is distinct in its characteristics, which makes the investment decision fascinating (interesting). The investor thus needs to carefully analyze each of its characteristics and build a basket of assets that suits his risk profile and complies with his objectives and goals. Hence, investment decision-making is a fascinating task to the investor.

• Investment is an Economic Activity (purpose of making money, gaining wealth, etc.)

• Investment is today's sacrifice for future gains.

SAVINGS Vs. INVESTMENTS

BASIS OF COMPARISON	SAVING	INVESTMENTS

Account type	Bank	Brokerage
Risk	Very low risk. FDIC-insured 5 Lacs per person(Federal Deposit Insurance Corporation)	Varies by investment, but there is always the possibility of losing some or all of your investment capital
Typical products	Cash in hand, Savings accounts, Bank FDs, CDs	Properties, gold, Stocks, Corporate FDs, bonds, mutual funds and ETFs
Time horizon	Short	Long, 3-5 years or more
Protection against inflation	Only a little	Potentially a lot
Return	Relatively low	Potentially higher or lower
Liquidity	High, unless CDs	High, though you may not get the exact amount you put into the investment depending on when you

INVESTING Vs. SPECULATION

Basis Of Comparison	**INVESTING**	**SPECULATION**
Meaning	Purchase of an asset/security for securing stable returns	Executing a risky financial transaction with the hope of profit-making

Time Horizon	Long Term	Short-term generally less than a year
Risk Levels	Moderate	High
Deployment of funds	An investor using funds of self	Borrowed funds
Investor attitude	Cautious and Conservative	Aggressive with an element of carelessness
Decision criteria	Fundamental and Basic factors i.e. Financial performance of the company/sector	Technical charts, Market psychology, and individual opinion
Expectations of Returns	Modest but continuous	A high rate of return.

WHY IS INVESTMENT NECESSARY?

•Investments are important because in today's world, just earning money is not enough. You work hard for the money you earn. But that may not be adequate for you to lead a comfortable lifestyle or fulfill your dreams and goals. To do that, you need to make your money work hard for you as well. This is why you invest. Money lying idle in your bank account is an opportunity lost. You should invest that money smartly to get good returns out of it.

- Financial Independence and Security.
- Safeguard against Inflation.
- Achieve your Personal Financial Goals.
- Increases Wealth.

SIMPLE INTEREST AND COMPOUND INTEREST

•Simple interest:-
Each year, the interest is calculated as a percentage of the Principal Amount.

•Compound interest:-

In the real world, simple interest is rarely used. When you deposit money into an interest-bearing account, the interest that accumulates is added to the principal, and the next interest calculation is done on both the principal and the interest.

Investment options consider the Compounding effect which ultimately Increases your Invested Amounts at a faster pace.

GOAL SETTING

•Goal Setting is the process of deciding what you want to Accomplish and Devising (plan or invent by careful thought) a plan to achieve the result you desire.
•A Goal without a Plan is Just a Wish.

INVESTMENT OBJECTIVES:-

Setting SMART Goals:

• S = Specific (What, Where, When, Why ?)
•M= Measurable (How much, How Many ? Like I want to be rich by having 10 Crores in my Account)
•A = Achievable
•R = Realistic (Real & Relevant to Current Situation)
•T = Time-Bound (Like I want to be rich by having 10 Crores in my Account by 2030)

FINANCIAL ASSETS

•A financial asset is a liquid asset that gets its value from a contractual right or ownership claim.

•Cash, stocks, bonds, mutual funds, and bank deposits are all are examples of financial assets. Unlike land, property, commodities, or other tangible physical assets,

financial assets do not necessarily have inherent physical worth or even a physical form. Rather, their value reflects factors of supply and demand in the marketplace in which they trade, as well as the degree of risk they carry.

NON-FINANCIAL ASSETS (REAL ASSETS)

•A non-financial asset refers to an asset that is not traded on the financial markets, and its value is derived from its physical characteristics rather than from contractual claims. Examples of non-financial assets include tangible assets, such as land, buildings, motor vehicles, and equipment, as well as intangible assets, such as patents, goodwill, and intellectual property.

• Non-financial assets are important for companies, and they can be used as collateral when securing credit from financial institutions. They are included on the balance sheet, and financial analysts consider non-financial assets when evaluating the long-term viability of the company.

ASSET CLASSES

•Asset is Something that appreciates in value. E.g.:- Stocks, F.Ds, Real Estate, Gold etc.

•Asset Class:- Securities that behave similarly in terms of Value Appreciation are grouped together to form an Asset Class.
✔ Equity, Fixed Income bearing securities, Cash, Real Estate And Gold.

TYPES OF ASSET CLASSES

- FUTURES & OTHER FINANCIAL
- DERIVATIVES
- REAL ESTATE
- EQUITY
- FIXED INCOME BEARING SECURITIES

- GOLD or OTHER COMMODITIES
- CASH & CASH EQUIVALENTS

EQUITY

- Needs an Average level of understanding (more risk involved so analyze carefully before investing).
- Highly Liquid.
- Returns are Above Inflation Returns.
- Volatile Returns.
- Equity can be used to achieve Long term goals.
- e.g.:- Direct Stocks, Equity oriented Mutual Funds, Equity ULIPs, etc.

FIXED INCOME BEARING SECURITIES

- Easy to Understand.
- High Liquidity.
- Near Inflation Returns.
- Low Volatility in Returns.
- e.g.:- Debt Funds, Bonds (Government, Corporate), Post office Schemes, PPF (Public Provident Fund), NSC (National Saving Certificate) SSY (Sukanya Samriddhi Yojana), etc.

CASH & CASH EQUIVALENTS

- Simple to Understand.
- Very High Liquidity.
- Below Inflation Returns.
- No Volatility in Returns.
- Can be used to store Emergency Funds.
- e.g.:- Liquid Funds, FDs, Saving Account, Balance, Cash.

REAL ESTATE

- Complex to Understand.
- Very Low Liquidity.
- Above Inflation Returns.
- High Volatility in Returns.

- e.g.:- Residential Space, Commercial Space, Land, etc.

GOLD or OTHER COMMODITIES

- Complex to Understand.
- High Liquidity.
- Near Inflation Returns.
- High Volatility in Returns.
- e.g.:- Gold, In Other Commodities like Silver, Copper, Crude oil, Art, etc.

FUTURES & OTHER FINANCIAL DERIVATIVES

•A Derivative refers to Financial Security whose value depends on the underlying asset or group of assets. Standalone, the derivative has no value of its own (like a paper instrument), and its price is based on fluctuations in the cost of the underlying asset.

•It is a kind of contract between two or more parties who have a right/obligation to perform according to the conditions of the contract.

•Commonly used underlying assets are equity shares, bonds, debt, foreign exchange, commodities, market indices, and interest rates.

DEBT MANAGEMENT

•Debt management is a way to get your debt under control through financial planning and Budgeting.

•The goal of a debt management plan is to use these strategies to help you lower your current debt and move toward eliminating it completely.

8 WAYS TO GET RID OF LOANS FOR THE EFFECTIVE DEBT MANAGEMENT

1) List your Debt by Interest Rate:-

List your Debt like Home Loan, Car Loan, Education Loan, Personal Loan, Unsecured Loan, etc. by Interest Rate in Descending order. First, pay higher interest debt. EMI (Equated Monthly Installment)should be decided on the basis of Interest Rates.

❑ Interest Rates in %

CREDIT CARD - 32.00 %
UNSECURED LOAN - 20.00 %
PERSONAL LOAN - 12.00 %
EDUCATION LOAN - 10.00 %
CAR LOAN - 9.00 %
HOME LOAN - 8.30 %

2) Pay Incremental Gain Exponential:-

After listing all your debt in Descending order the debt which has higher interest rate pay it off by increasing their EMI (Pay Incremental).

✔ It will help to set off that debt that has a higher interest rate early, then one can focus to pay off their debt with a lower amount.

✔ If one can increase their EMI on higher interest rate debt, ultimately it will save their interest cost which can help them to gain exponentially.

3) Sell Unnecessary Items for at least 2 to 4 EMIs:-

Useless or unnecessary items lying at home should be sell-off. It will help in paying off your loans to a certain extent.

✔ Useless or unnecessary items may include old furniture, old mobile, electronic appliances (like T.V., microwave, heater), washing machine, Computer, laptop, camera, cycle, Bags, Books, Musical Instruments, Sports Instruments, Apparels, etc.

✔ these items can be sold through an online platform like Olx, Quikr, etc.

4) Temporary Downsizing:-

Temporary Downsizing is very essential where one should evaluate their:-

✔ Gratification Expenses (pleasure expenses like a foreign tour, etc.)
✔ Dine out Expenses (dinner in a restaurant)
✔ Entertainment Expenses
✔ Unnecessary monthly Subscription services
✔ Depreciating Assets (avoid buying depreciating assets)
✔ Non-Value Adding objects,

Therefore, above expenses should be controlled to get extra savings which will be very helpful in managing debt (help in EMIs).

5) Pay Loans with the Second Income:-

If husband & wife both are working then one's salary to be used to pay off loans completely & another salary to be used for households expenses and Savings.

✔ But If There Is Only One Earning Members Then, DO THE PLANNING FOR ADDITIONAL INCOME like one can do Freelance photography, Content writing, Part-timing teaching, LIC Agent, Multilevel marketing Executive, Data entry operator, Tele-Calling, Industry-specific consulting, Catering (homemade cookies or cake), Tour guide for weekends, part-time driving in ola or uber, Paid tweeting on social media, etc.

✔ So one can plan for additional income by considering his passion which will help in debt management.

6) Have an Emergency Savings Fund:-

Emergency savings fund helps in crucial times (loan requirement reduced).

✔ Here Returns are secondary and therefore one should make a sensible decision while building an Emergency Savings Fund.

✔ In case of any urgency, Money should be available for use within 24 to 48 hours.

✔ e.g.:- Cash in Bank, Fixed Deposits, Liquid Funds, etc.

7) Habit of Budgeting is an Extra Blessing:-

Make a Budget for your spendings which will be very helpful to track record of your expenses.

✔ Have a Data-Driven Approach to your Spendings.
✔ Keep your Intelligence above emotion (control emotional spending)
✔ Those who don't manage their money will always work for those who do.
✔ Like if you have budgeted that investment will be made for ₹ 10000 & Actual Investments made by you should be 10000 or near about. So the budget will help you in data-driven spending.

8) Throw Any Excess Cash on Your Debt:-

If you get any excess cash or windfall gains, use those to settle your debt.

✔ As Cash received from:-
o Tax Refund,
o Proceed from Sale of Car,
o Property Inheritance,
o Winning a Bet,
o Bonus,
o Incentives or other windfall gains.

Do not use the above gains for unnecessary expenditures. Immediately settle your debt through these proceeds.

FORMS OF BUSINESS OWNERSHIP

1) Sole Proprietorship
2) Partnership Firm
3) Limited Liability Partnership
4) Joint Stock Company
5) Co-operative Societies
6) Trust [Like Real Estate Investment Trust (REIT), Infrastructure Investment Trust (InvIT), etc.]

1) Sole Proprietorship

•A sole proprietorship, also known as the sole trader, individual entrepreneurship or proprietorship, is a type of enterprise that is owned and run by one person.

•The sole proprietorship is the simplest business form under which one can operate a business. The sole proprietorship is not a legal entity. It simply refers to a person who owns the business and is personally responsible for its debts.

•The sole proprietorship is a popular business form due to its simplicity, ease of setup, and nominal cost. A sole proprietor needs only register his or her name and secure local licenses, and the sole proprietor is ready for business.

2) Partnership Firm

• A partnership firm is an organization that is formed with two or more persons to run a business with a view to earning profit. Each member of such a group is known as a partner and collectively known as a partnership firm. These firms are governed by the Indian Partnership Act, 1932.

• the Minimum number of people required to start a partnership firm is 2 and the maximum limit is 10 in the case of banking business and 20 in the case of all other types of business. In a partnership firm, all the profits and losses are shared by the partners in any ratio as agreed. If it is not given then they share it equally.

• Liability of partners of a partnership firm is unlimited. They are jointly held liable for the debts and losses of the firm.

3) Limited Liability Partnership

•A limited liability partnership (LLP) is a partnership in which some or all partners have limited liabilities. It therefore can exhibit elements of partnerships and corporations.

•In an LLP, each partner is not responsible or liable for another partner's misconduct or negligence.

•An LLP has all basic features of a regular partnership firm, except that of the same legal entity status and unlimited liability of partners. Consequently, limited liability partnerships have legal existence and identity separate from that of their partners. Furthermore, its partners have limited liabilities.

4) Joint Stock Company

•A joint-stock company is a business entity in which shares of the company's stock can be bought and sold by shareholders. Each shareholder owns company stock in proportion, evidenced by their shares (certificates of ownership)

•Shareholders are able to transfer their shares to others without any effects on the continued existence of the company.

•In modern-day corporate law, the existence of a joint-stock company is often synonymous with incorporation (possession of legal personality separate from shareholders) and limited liability (shareholders are liable for the company's debts only to the value of the money they have invested in the company). Therefore, joint-stock companies are commonly known as corporations or limited companies.

5) Co-operative Societies

•A cooperative society is a voluntary association that started with the aim of the services to its members. It is a form of business where individuals belonging to the same class join their hands for the promotion of their common goals.

•A cooperative society is a special type of society, which is established by an economically weak person for the betterment and upliftment of their economic condition through mutual help.

•So, we can say that a cooperative society is an association of a person who joins the organization willingly to protect economic & social interests.

6) Trust [Like Real Estate Investment Trust (REIT), Infrastructure Investment Trust (InvIT)

•Trust is A legal relationship, in which the author assigns property to the trustee for the benefit of the beneficiary.

•Like, A Real Estate Investment Trust (REIT) is a company that owns, operates, or finances income-generating real estate. Modeled after mutual funds, REITs pool the capital of numerous investors. This makes it possible for individual investors to earn dividends from real estate investments—without having to buy, manage, or finance any properties themselves.

•InvITs are instruments (Collective Investment Scheme) that work like mutual funds. InvITs are designed to pool small sums of money from a number of investors to invest in assets (Infrastructure Projects) that give cash flow over a period of time. Part of this cash flow would be distributed as dividends back to investors.

PERSONAL BUDGETING

•Individuals and families can have budgets, too. Creating and using a budget is not just for those who need to closely monitor their cash flows from month to month because "money is tight." Almost everyone—even people with large paychecks and plenty of money in the bank—can benefit from budgeting.

•Having a handle on your monthly income and expenses allows you to make sure your hard-earned money is being put to its highest and best purpose. For those who enjoy an

income that covers all bills with money left over, a budget can help maximize savings and investments.

PERSONAL CASH INFLOW AND CASH OUTFLOW MANAGEMENT

•Managing Personal Cash Inflow and Outflow and Keeping a Proper Record of it is very essential for financial management.

•Cash management is the process of collecting and managing cash flows. Cash management can be important for both individuals and companies. In business, it is a key component of a company's financial stability. For individuals, cash is also essential for financial stability while also usually considered as part of a total wealth portfolio.

PERSONAL BALANCE SHEET

•Balance sheet is a summary of the financial balances of an individual or organization. It is a Statement that shows the Financial Position of An Individual or Organization on a Specified date.

•A personal balance sheet provides an overall snapshot of your wealth at a specific period in time.

• It is a summary of your assets (what you own), your liabilities (what you owe), and your net worth (assets minus liabilities).

Notes

Topic: Ratio Analysis

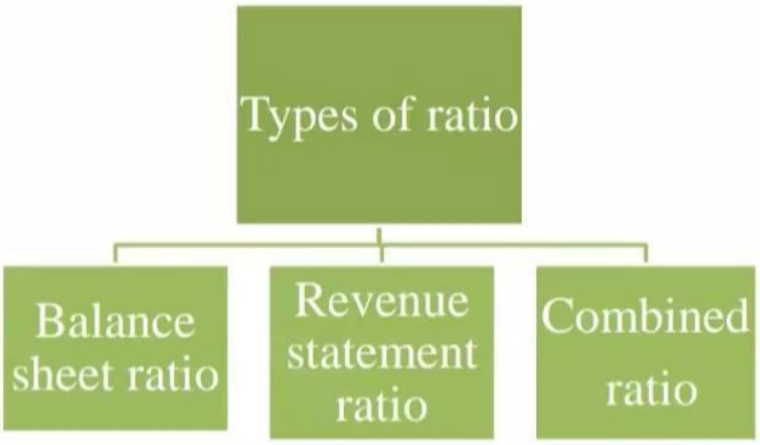
✓ Meaning of Ratio:

A ratio shows the relationship between two figures.

Ratio analysis the process of computing and presenting the relationship between the items in the financial statements.

✓ Forms of Ratio

1. **Pure ratio** : eg 1:1
2. **Percentage:** eg 45%
3. **Rate:** eg times



➢ *BALANCE SHEET RATIO*

1. CURRENT RATIO:

This ratio compares the Current Assets with Current Liability.

It is expressed in the form of a PURE ratio.

CURRENT RATIO = CURRENT ASSETS / CURRENT LIABILITY

- **Components:**

Current Assets includes:

1. Sundry debtors (less Provisions)
2. Loose Tools
3. Income Accrued/ Due
4. Bills Receivables
5. Cash and Bank balance
6. Marketable Investments
7. Closing stock of Ra Materials. Work in Progress, Finished Goods, Stores and spares
8. Short term Loans and Advances given

Current liabilities includes

1. sundry creditors
2. Bills Payables
3. Outstanding Expenses
4. Unpaid Dividend
5. Provision for Taxation
6. Income received in advance
7. Bank overdraft
8. Short term Loans

2:1 is regarded as standard ratio.

2. LIQUID RATIO/QUICK RATIO/ACID TEST RATIO

Liquid ratio compares the quick assets with liabilities.

Liquid Ratio: Quick Assets / Quick Liabilities

Quick Assets = Current Assets – Closing Stock – Prepaid Expenses

Quick Liabilities = Current Liabilities – Bank Overdraft

1:1 is regarded as standard ratio.

- **Components:**

Quick Assets :

1. Debtors
2. Loose Tools
3. Income Accrued / Due
4. Bills Receivables
5. Cash and Bank Balance
6. Marketable Investments

Quick Liabilities:

1. Creditors
2. Bills Payable
3. Outstanding Expenses
4. Unpaid Dividend
5. Provision For Taxation

3. **STOCK TO WORKING CAPITAL RATIO**

Shows the relationship between the closing stock and working capital.

$$\textbf{Stock to Working Capital Ratio} = \frac{\textbf{Stock}}{\textbf{Working Capital}} * 100$$

Standard form differs from company to company.

- **Components:**
- Stock = Closing Stock
- Working Capital = Current Assets – Current Liability

4. **PROPRIETORY RATIO**

Also known as Net worth to Total Assets Ratio, Equity Ratio, Net Worth Ratio or Asset Backing Ratio.

Compares proprietors fund with total Liabilities or Assets.

$$\textbf{Proprietory Ratio} = \frac{\textbf{Proprietor's Fund or Shareholder's Equity}}{\textbf{Total Assets or Total Liabilities}} * 100$$

65% is considered as standard form.

- **Components:**
- **Proprietor's Fund or Shareholder's Equity will include**

1. Paid Up Equity Capital
2. Reserves and Surplus
   Less: Accumulated Losses (ie P/L a/c debit balance)
   Less: Fictitious Assets
3. Paid up Preference share capital

5. DEBT- EQUITY RATIO:

Compares long term debt with Shareholder's funds.

$$\textbf{Debt Equity Ratio} = \frac{\textbf{Debt}}{\textbf{equity}} \textbf{ OR } \frac{\textbf{Borrowed Funds}}{\textbf{Proprietor's Funds}}$$

2:1 is considered as Standard Ratio.

- **Components:**
- **Debt / Borrowed Funds will include**

1. Debentures , Loans etc,
2. Interest accrued On such borrowed funds

- **Proprietor's Fund or Shareholder's Equity will include**

1. Equity Capital
2. Reserves and Surplus

6. CAPITAL GEARING RATIO:

process of increasing the equity shareholder's return through the use of Debt.

$$\text{Capital Gearing Ratio} = \frac{\text{Capital with Fixed rate of return}}{\text{Capital with Fluctuating rate of return}}$$

Standard form differs from company to company.

- **Components:**
- **Capital with fixed rate of return will include:**

1. Preference share capital
2. Debentures, Long term loans ie. Borrowed Funds

- **Capital with Fluctuating rate of return:**

1. Equity Capital
2. Reserves and Surplus
   Less: Accumulated Losses (ie P/L a/c debit balance)
   Less: Fictitious Assets

THUS,

$$\text{CGR} = \frac{\text{PC} + \text{BF}}{\text{EF}}$$

➢ *REVENUE STATEMENT RATIO*

1. **GROSS PROFIT RATIO:**

Compares Gross Profit with Net Sales.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} * 100$$

Differs from company to company.

- **Components:**
- **Gross Profit (GP) = Sales less Cost of goods Sold**
- **Cost Of Goods Sold (COGS)**

1. Opening Stock
2. Add: Purchase
3. Add: direct expenses
4. Less: Closing Stock

- **Net Sales**

Sales less Allowances – Returns

Add: Non cash debit to P/

(Depreciation, Goodwill w/off, Deferred revenue Expenses w/off, Loss on sales of fixed Assets etc)

Add: Interest on Loan

2. **Interest** means interest on long term loans during the year.
3. **Installment** means installments due on long term loans during the year.

7. DEBTORS TURNOVER

Shows the relationship between net credit sales and average trade debtors. It is expressed as a rate.

a. Debtors Turnover = Credit Sales / Debtors + Bills Receivables

b. Debtors Velocity (Debt Collection Period)

Debtors Velocity Ratio = 365/12 * Average Debtor / Credit Sales

There is no standard ratio.

8. CREDITORS TURNOVER RATIO

Shows the relationship between the net credit purchase and the average trade Creditors.

a. **Creditors Turnover = Credit Purchase / Creditors + Bills Payables**

b. Creditors Velocity Ratio (Debt Payment Period)

Credit Period Enjoyed= 365 days/12 months * Average Creditors / Credit Purchase

There is no standard ratio.

REAL RATE VS NOMINAL RATE OF RETURN

NOMINAL RATE OF RETURN

1) THE RETURN ON AN INVESTMENT IS USUALLY EXPRESSED AS A NOMINAL RATE.

2) IT DOES NOT INCLUDE TAX AND INFLATION

EXAMPLE

FIXED DEPOSIT – 7 %

NOMINAL RATE OF RETURN – 7 %

REAL RATE VS NOMINAL RATE OF RETURN

1) THE NOMINAL RATE IS ALWAYS POSITIVE

2) REAT RATE CAN BE POSITIVE OR NEGATIVE

EXAMPLE

A FIXED DEPOSIT PAYS 7% INTREST PER ANNUM. THE INFLATION RATE FOR THAT YEAR IS 8%. WHAT IS THE REAL RETURN ?

NOMINAL RATE OF RETURN = 7 %

INFLATION RATE = 8 %

REAL RATE OF RETURN = 7% – 8%

= –1%

REAL RATE VS NOMINAL RATE OF RETURN

REAL RATE OF RETURN

1) WHEN THE NOMINAL RATE IS ADJUSTED FOR THE EFFECTS OF INFLATION, IT IS KNOWN AS REAL RATE OF RETURN

EXAMPLE

A FIXED DEPOSIT PAYS 7% INTREST PER ANNUM. THE INFLATION RATE FOR THAT YEAR IS 5%. WHAT IS THE REAL RETURN ?

NOMINAL RATE OF RETURN = 7 %
INFLATION RATE = 5 %
REAL RATE OF RETURN = 7% - 5%
= 2 %

REAL RATE VS NOMINAL RATE OF RETURN

EXAMPLE (5 YEARS)

	FIXED DEPOSIT	MUTUAL FUNDS
1) NOMINAL RATE	7 %	18 %
2) INFLATION RATE	6 %	6 %
3) REAL RATE OF RETURN	= 7 %—6 % = 1%	= 18 %—6 % = 12 %

JUNE/JULY 2018

Saturday 30

I present value →

eg-1st ZERO Date

10,000

Future value +7% | 10000 ×1.07 ↓

10,700

After one year.

11,000 → present value of 11,000 /- (Guaranteed)

11,000 / 1.07 = 10,280

Future value = $PV(1+r)^n$

present value = $\frac{FV}{(1+r)^n}$

r = Rate of Int.
n = No. of years

NOTE :- 7% → Risk Free Rate. [Fixed Deposit]
↳ Discount Rate.

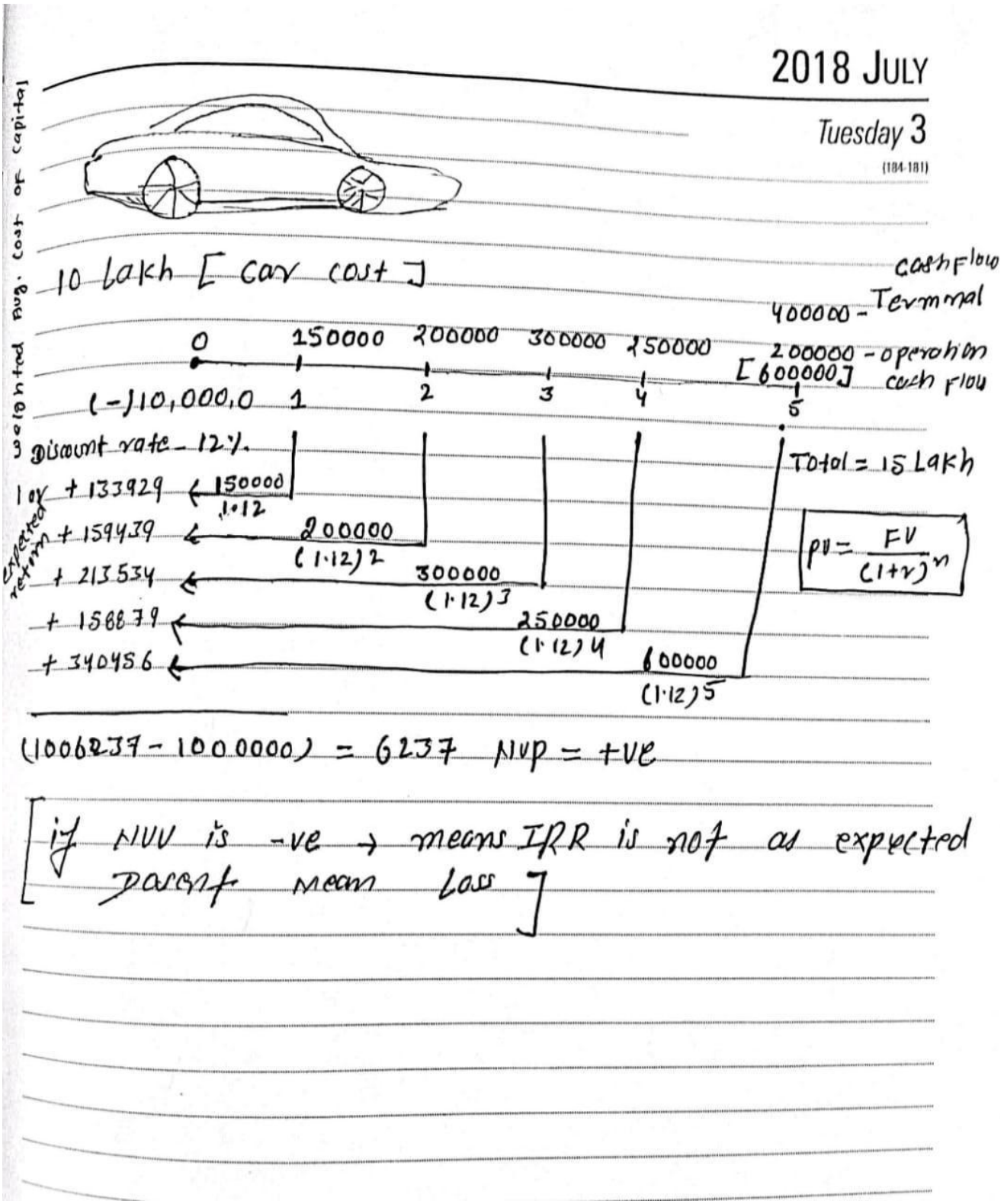
eg-II After 5 years

n = 5 years
r = 0.07

F.V = 500000 /-

$PV = \frac{100000}{(1+0.07)^5} = 71299 = P.V$

Sunday 1


2018 JULY
Tuesday 3
(184-181)
Weighted Avg. Cost of Capital
10 lakh [Car cost]
cash Flow
400000 - Terminal
200000 - operation cash flow
0 150000 200000 300000 250000
[600000]
(-)10,000,0 1 2 3 4 5
Discount rate - 12%.
Total = 15 Lakh
PV = FV / (1+r)^n
expected return
10% + 133929 ← 150000 / 1.12
+ 159439 ← 200000 / (1.12)2
+ 213534 ← 300000 / (1.12)3
+ 158879 ← 250000 / (1.12)4
+ 340456 ← 600000 / (1.12)5
(1006237 - 1000000) = 6237 NVP = +ve
[if NVV is -ve → means IRR is not as expected
Doesn't mean Loss]

JULY 2018

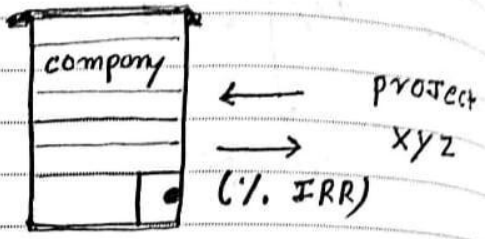
2 Monday

(183-182) II Net present value →

IRR - Internal Rate of Return.
DCC - Discounted cash flow.

* Why ?

i) value of a project.
2) value of an Inv. project.
3) value a company.



[what is future cash fl

* Things Required to Calculate NPV.

1) Cash outflow today.
2) Net cash flow in future.
3) Terminal cash flow.
4) Discount rate → expected Return.

eg → A. Co. is evaluating wheather to start new route. wheather it will Give expected Returns ? [Car Renting Co.]

4 Wednesday

(185-180) III Future value → of Money

(a) simple interest

zero Date	1 yr	2 yr	3rd yr	4 yr	5 yr
0	+7% →	+7% →	+7% →	+7% →	+7% →
→ Initial INV 10000	→ 10700	→ 11400	→ 12100	→ 12800	→ 13500

(b) compound int

	1 yr	2 yr	3 yr	4 yr
Initial Inv 10000	+7% → 10700	+7% → 11449	+7% → 12,250	+7% → 13108 (+7
	×1.07	×1.07	×1.07	

3 yr

13108 × 1.07 → 14,025

formulae → future value = $pv(1+r)^n$

Another way of calculation → $PV(1+r)^n$

(Annual compounding) $10000(1+0.07)^5$

$= 14,025$

(c) Monthly compounding →

$$FV = 10000\left[1+\frac{0.07}{12}\right)^{5\times12}$$

$= 14,176$

II present value of an Annuity →

previous eg →

pv (single)

1 Lakh after 5 yrs

$$pv = \frac{FV}{(1+r)^n} = \frac{100000}{(1+0.07)^5} = 71,299$$

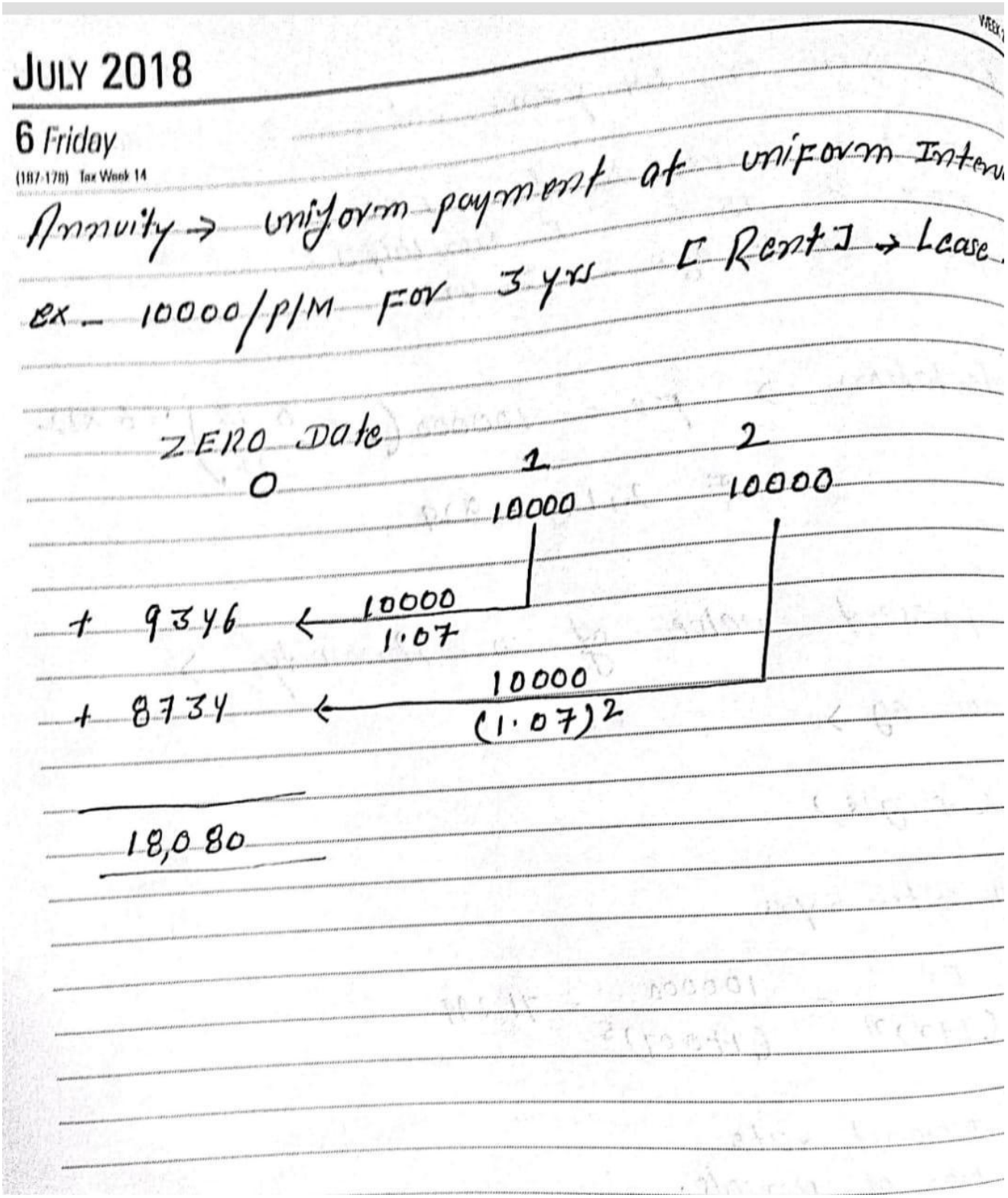
r = Discount rate

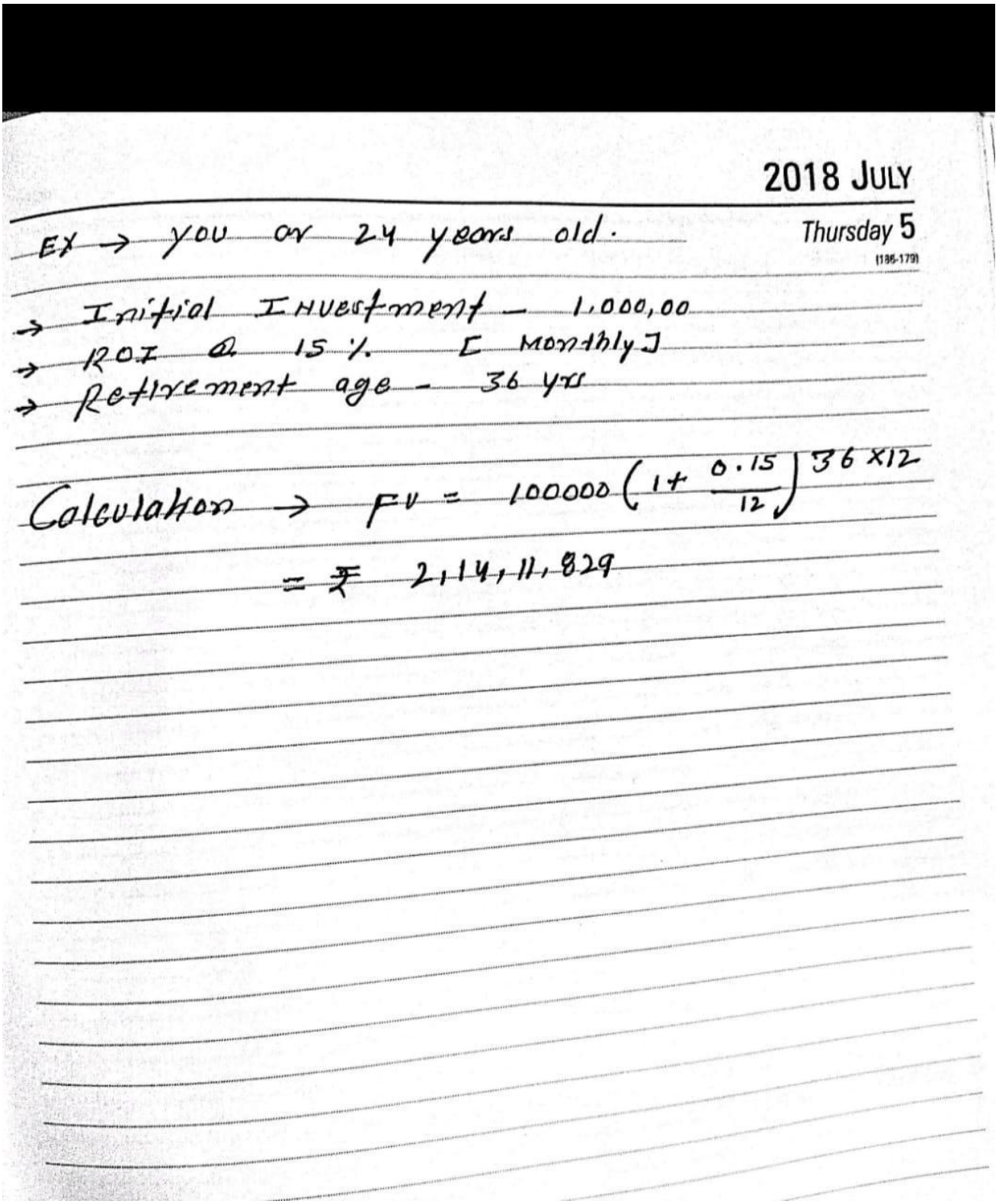
n = No. of periods.

August 2018

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOTES


JULY 2018
6 Friday
(187-178) Tax Week 14
Annuity → uniform payment at uniform Inter
[Rent] → Lease
ex – 10000/p/M for 3 yrs
ZERO Date
0
1
2
10000
10000
+ 9346
10000/1.07
+ 8734
10000/(1.07)2
18,080



2018 JULY

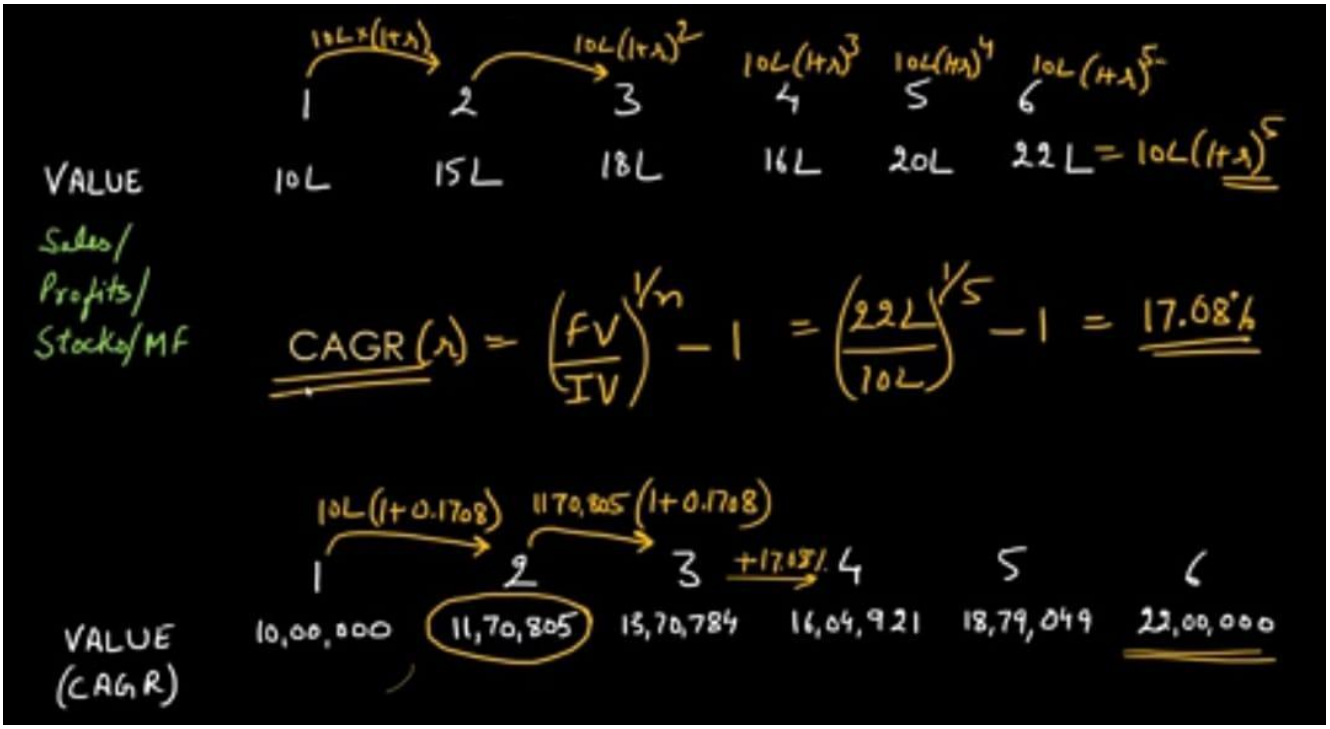
Thursday 5

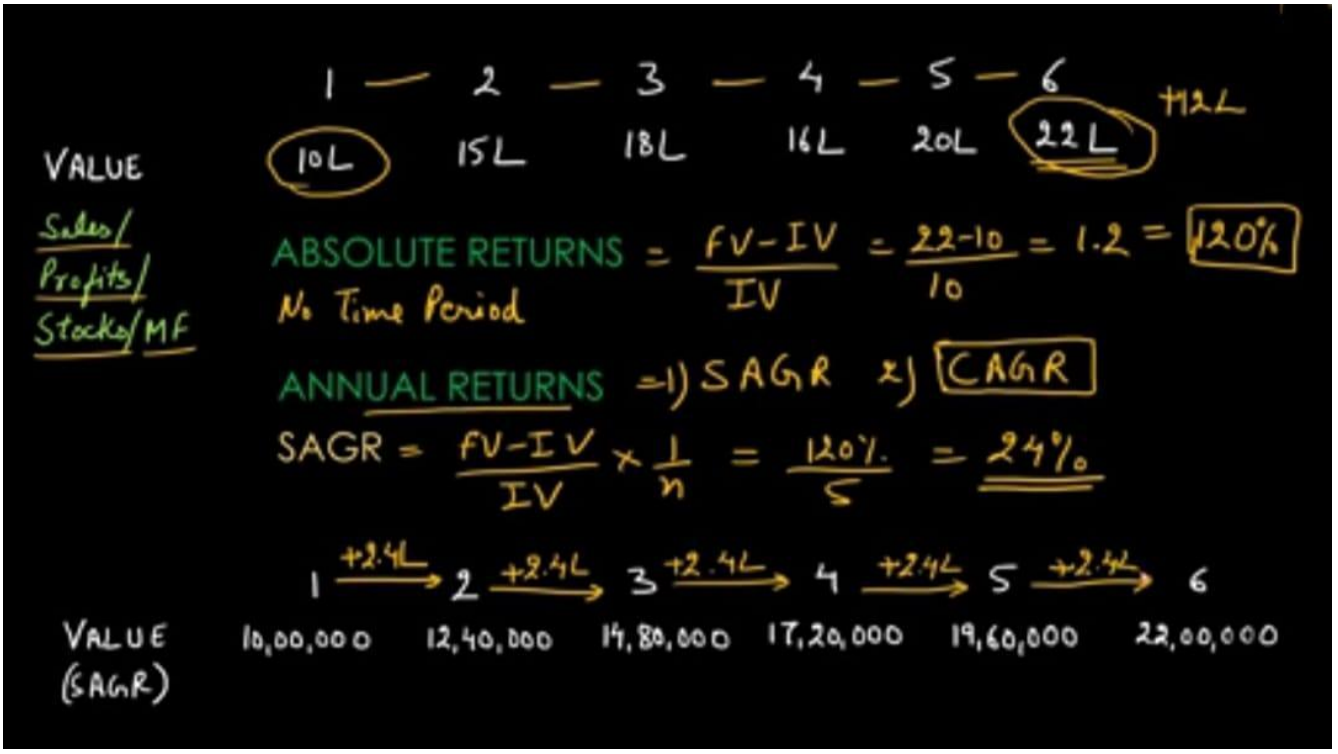
Ex → you are 24 years old.

→ Initial Investment – 1,000,00
→ ROI @ 15 %. [Monthly]
→ Retirement age – 36 yrs

Calculation → $FV = 100000\left(1+\frac{0.15}{12}\right)^{36\times12}$

$= ₹\ 2,14,11,829$


VALUE
10L
15L
18L
16L
20L
22L = 10L(1+r)^5
Sales/ Profits/ Stocks/ MF
CAGR (r) = (FV/IV)^1/n − 1 = (22L/10L)^1/5 − 1 = 17.08%
10L(1+0.1708)
11,70,805(1+0.1708)
+17.08%
10,00,000
11,70,805
13,70,784
16,04,921
18,79,049
22,00,000
VALUE (CAGR)


VALUE
10L
15L
18L
16L
20L
22L
+12L
Sales/ Profits/ Stocks/ MF
ABSOLUTE RETURNS = FV−IV/IV = 22−10/10 = 1.2 = 120%
No Time Period
ANNUAL RETURNS =1) SAGR 2) CAGR
SAGR = FV−IV/IV × 1/n = 120%/5 = 24%
+2.4L
10,00,000
12,40,000
14,80,000
17,20,000
19,60,000
22,00,000
VALUE (SAGR)

JULY 2018

WEEK 28

11 Wednesday

(192-173)

Growing annuities -

The growing annuity refers to series of payment that grow at a constant Rate over a specified period of time.

→ Following is an example of growing Annuity with a growth Rate of 5%.

0	1	2	3	4	5
	↓ (1.05)	↓ (1.05)	↓ (1.05)	↓ (1.05)	↓ (1.05)
	100.00	105	110.25	115.76	121.55

Formulae →

* Future value of growing annuity (FVGIA)

$$FVGIA_n = A \times \left[\frac{(1+i)^n - (1-g)^n}{(i-g)}\right]$$

* present value of growing Annuity - (PVGIA)

$$PVGIA_n = A \times \left[\frac{(1+i)^n - (1+g)^n}{(i-g)(1+i)^n}\right]$$

↳ Discount Rate

NOTES

July 2018

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

2018 JULY

Thursday 12

A – orlginal Investment

I/i – Rate of Return

n – period in consideration.

g – growth Rate (in A)

ex – Assume that you are to Receive an annuity of 1000 starting a year from now for 5 years. the annuity shall grow at 5% pa Find FV. if the Discount Rate is 10%.

* $FVGA = 1000 \times \left[\frac{(1.10)^5 - (1.05)^5}{(0.10 - 0.05)}\right]$

$$FVGA = 6684.57 \rightarrow FV$$

JULY 2018

WEEK 29

13 Friday

(194-171) Tax Week 15

"HOLDING PERIOD RETURN"

↓

profit earned on Capital Invested →

Formulae =

$$HPR = \frac{\text{price @ end} - \text{price @ beginning} + \text{Dividend}}{\text{price @ beginning}} \times 100$$

Ex → Calculate the Return in the following ex-

	X Ltd	Y Ltd.
	Rs	Rs
price as on 31/03/2011	20	10
price as on 31/03/2012	15	15
Dividend for the year	1	1

JULY 2018

Saturday 14

solution →

$$HPR = \frac{price\ (end) - price\ (beg) + D}{price\ (beg)}$$

a) $HPR\ (X\ Ltd) = \frac{(15-20)+1}{20} \times 100$

$= \frac{-5+1}{20} \times 100$

$= -20\%$

b) $HPR\ (Y\ Ltd) = \frac{(15-10)+1}{10} \times 100$

$= \frac{5+1}{10} \times 100$

$= 60\%$

Sunday 15