**📘 1. Arithmetic Basics**

**✅ What to Learn:**

* Addition, subtraction, multiplication, division
* Percentages and percentage change
* Averages (mean)

**💡 Why It’s Useful:**

* To calculate returns, growth rates, profit margins, and price changes.

**📘 2. Ratios and Proportions**

**✅ What to Learn:**

* Ratios (e.g., 2:1)
* How to compare quantities
* Rule of three method

**💡 Why It’s Useful:**

* Used in **financial ratios** like Debt-to-Equity, Current Ratio, ROE, ROCE.

**📘 3. Percentages and Growth**

**✅ What to Learn:**

* % Increase / % Decrease
* Compound Growth Rate (CAGR)
* Rule of 72 (to estimate doubling time)

**💡 Why It’s Useful:**

* To evaluate **sales growth**, **profit growth**, and **investment returns**.

**📘 4. Fractions and Decimals**

**✅ What to Learn:**

* Converting fractions to decimals and vice versa
* Comparing values
* Working with recurring decimals

**💡 Why It’s Useful:**

* Many financial ratios are decimals (e.g., 0.25 ROE = 25%).

**📘 5. Algebra (Basic)**

**✅ What to Learn:**

* Solving simple equations
* Using variables (like x for unknowns)
* Rearranging formulas

**💡 Why It’s Useful:**

* Helps with valuation formulas like DCF (Discounted Cash Flow).

**📘 6. Statistics (Basic)**

**✅ What to Learn:**

* Mean, Median, Mode
* Standard Deviation (just basic concept)
* Data interpretation

**💡 Why It’s Useful:**

* Used in analyzing stock returns, volatility, and performance comparison.

**📘 7. Time Value of Money**

**✅ What to Learn:**

* Present Value (PV) and Future Value (FV)
* Discounting and Compounding
* NPV (Net Present Value) and IRR (Internal Rate of Return)

**💡 Why It’s Useful:**

* Essential for **valuation techniques** like DCF analysis.

**📘 8. Graph Reading and Interpretation**

**✅ What to Learn:**

* Reading bar charts, line graphs, pie charts
* Interpreting trends from data

**💡 Why It’s Useful:**

* Used when viewing charts, historical performance, and financial reports.

**📘 9. Logarithmic Thinking (Optional - Advanced Investors)**

**✅ What to Learn:**

* Understanding exponential growth
* Log returns (for serious portfolio math)

**💡 Why It’s Useful:**

* Useful for long-term portfolio compounding and advanced return modeling.

**📘 10. Financial Math (Specific to Investing)**

**✅ What to Learn:**

* Earnings Per Share (EPS) = Net Profit / No. of Shares
* Price to Earnings (P/E) Ratio = Stock Price / EPS
* Return on Equity (ROE) = Net Income / Shareholder’s Equity
* Dividend Yield = Dividend / Share Price

**💡 Why It’s Useful:**

* These are **core formulas** used in stock screening and investment decisions.

**📘 Bonus: Excel or Calculator Skills**

**✅ What to Learn:**

* Basic Excel formulas (SUM, AVERAGE, %, PV, FV)
* Financial functions like NPV() and IRR()

**💡 Why It’s Useful:**

* Most real-life analysis is done in Excel or Google Sheets.

**🔁 Summary Chart:**

| **Math Topic** | **Importance in Investing** |
| --- | --- |
| Percentages | Returns, growth, profit margins |
| Ratios & Proportions | Debt-Equity, Liquidity, Valuation |
| Basic Algebra | Formulas & Valuations |
| Time Value of Money | DCF, NPV, IRR |
| Statistics Basics | Volatility, Average returns |
| Graph Interpretation | Financial charts, trend analysis |
| Financial Math | EPS, ROE, PE, PB, Yield etc. |