How Much Math You Should Know for Data Analytics

1.Basic Arithmetic:

Operations: Addition, subtraction, multiplication, and division.

Percentages: Understanding and calculating percentages, percentage changes, and proportions.

2. Descriptive Statistics:

Mean, Median, Mode: Central tendency measures.

Variance and Standard Deviation: Measures of spread or dispersion in a dataset.

Range: The difference between the maximum and minimum values.

Percentiles and Quartiles: Understanding distribution segments.

3. Data Summarization:

Aggregations: Summing, counting, averaging, etc.

Data Grouping: Using techniques like `group by` in pandas.

Pivot Tables: Summarizing data using pivot tables.

4. Basic Probability:

Probability Concepts: Basic understanding of probability, independent and dependent events.

Distributions: Familiarity with basic probability distributions (e.g., normal distribution).

5. Correlation and Covariance:

Correlation: Understanding how to measure the strength and direction of a linear relationship between two variables.

Covariance: Understanding the concept of covariance as a measure of the joint variability of two variables.

6. Basic Algebra:

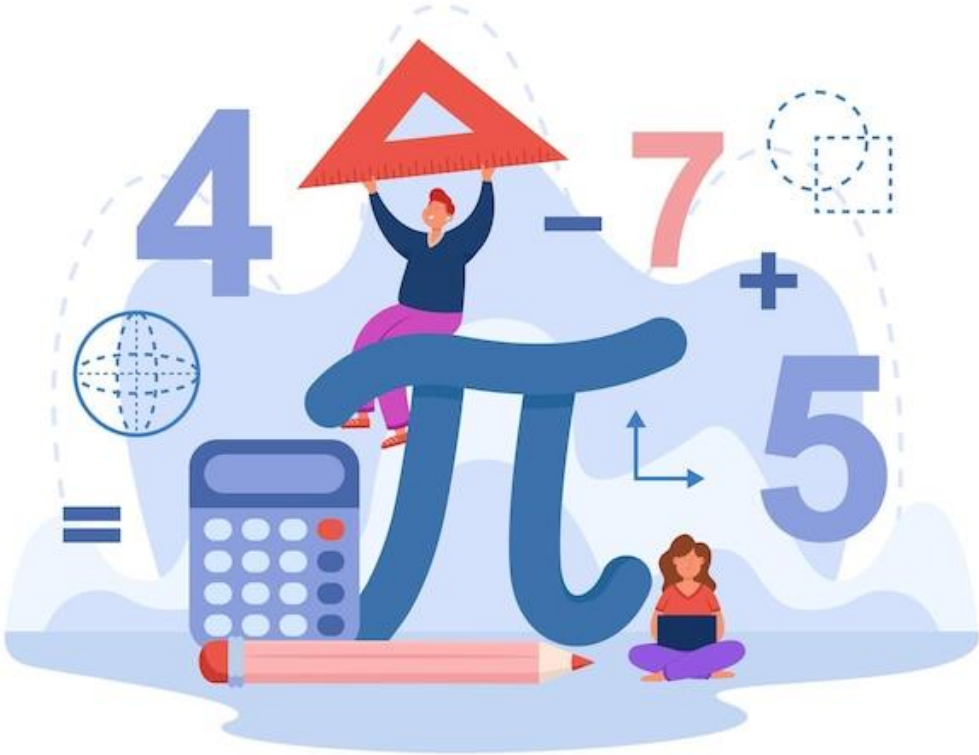
Equations: Solving linear equations.

Formulas: Understanding and manipulating mathematical formulas.

7. Time Series Analysis (Basics):

Trend Analysis: Recognizing and understan trends over time.

Moving Averages: Calculating and understanding moving averages for smoothing data.



9. Visualization Techniques:

10. Basic Linear Algebra (Optional):

11. Basic Calculus (Minimal):


4000
5000
6000
7000
7500
8000
10 Million