

# PSAT/SAT (High School Math)

## Course Curriculum (MPSL Academy)

**Each Session: 1 hour 15 minutes**

(First 10 min review of last week topics/HW, 50 min new topics, 15 min critical thinking Qs)

### **1. Heart of Algebra** *(19 Total Questions)*

- Linear Equations and Applications/XY Relationship
- Systems of Linear Equations/Graphs/Solutions
- Linear Inequalities/Graphs/Solutions
- Linear Equation Formation/Coordinates/Slope
- Linear Equation Variables
- Absolute Value
- Maximum & Minimum Values

### **2. Passport to Advanced Math** *(16 Total Questions)*

- Polynomial Equations/Variables
- Exponents
- Equivalent Algebraic Equations
- Difference of Perfect Squares
- Quadratic/Polynomial Functions/Graphs
- Quadratic Physics Equation
- Quadratic Solutions/Factors/Remainders
- Quadratic Equation Forms/Vertex/Intercepts
- Long Division
- Exponential Functions/Growth/Decay

### **3. Problem Solving and Data Analysis** *(17 Total Questions)*

- Direct/Inverse Proportions
- Scatter Plots/Lines of Best Fit/Correlation
- Histograms/Average/Median/Mode/Range/Standard Deviation
- Percentages
- Unit Conversions
- Surveys/Samples
- Probabilities
- Ratios/Rates

### **4. Additional Topics in Math** *(6 Total Questions)*

- Area/Volume /Lines/Angles (Reference Info)
- Circles/Radians
- Complex Numbers
- Trigonometry