

ALGEBRA I Key Mathematical Practices

REASONING AND PROBLEM SOVLING

This involves using logical reasoning to analyze and solve algebraic problems. Students need to interpret mathematical situations, formulate problems, and use appropriate strategies to find solutions.

MODELING WITH MATHEMATICS

Students are expected to use algebraic concepts to model real-world situations. This includes creating and interpreting mathematical models, such as equations or functions, that represent real-life scenarios.

CONSTRUCTING VIABLE ARGUMENTS AND CRITIQUING THE REASONING OF OTHERS

This practice involves making logical arguments based on algebraic principles and being able to evaluate and critique the arguments presented by others. Students need to justify their solutions and explain their reasoning clearly.

USING APPROPRIATE TOOLS STRATEGICALLY

This practice emphasizes the use of tools like calculators, algebraic software, and graphs to solve problems and understand algebraic concepts. Students should be able to select and use tools effectively to explore mathematical ideas.

ATTENDING TO PRECISION

This involves being accurate and precise in mathematical calculations, representations, and explanations. Students need to be careful with their work and check their answers for correctness.

LOOKING FOR AND MAKING USE OF STRUCTURE

This practice includes recognizing and utilizing algebraic structures and patterns. Students should be able to see connections between different mathematical concepts and use the structures to solve problems more efficiently.

LOOKING FOR AND EXPRESSING REGULARITY IN REPEATED REASONING

This involves identifying patterns in mathematical reasoning and applying these patterns to solve problems. Students should be able to generalize from specific cases and apply regularities to new situations.