Department of Mathematics Education

Mathematics Standards

Cleveland Municipal School District — Educating Cleveland's Children

Mathematical Processes

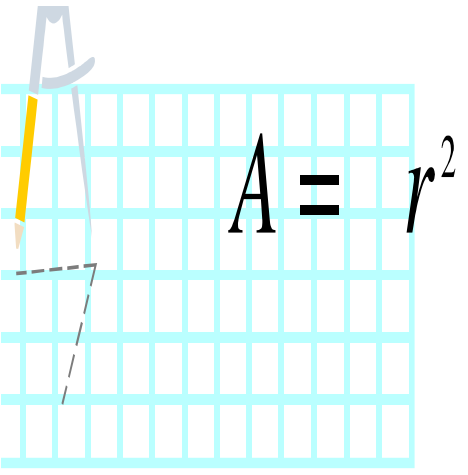
Mathematical Processes articulate what students should be able to demonstrate in problem solving, representation, communication, reasoning and connections at key points in their mathematics program. The Mathematical Processes are embedded into each of the five content standards.

Standard One: Number, Number Sense and Operations

Students demonstrate number sense including an understanding of number systems and operations, and how they relate to one another. Students compute fluently and make reasonable estimates using paper and pencil, technology supported and mental methods.

Standard Two: Measurement

Students estimate and measure to a required degree of accuracy and precision by selecting and using appropriate units, tools and technologies.

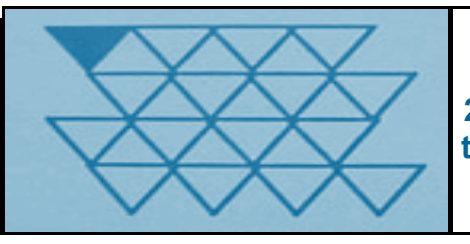


Standard Three: Geometry and Spatial Sense

Students identify, classify, compare, and analyze characteristics, properties, and relationships of one-, two-, and three-dimensional geometric figures and objects. Students use spatial reasoning, properties of geometric objects and transformations to analyze mathematical situations and solve problems.

Standard Four: Patterns, Functions and Algebra

Students use patterns, relations and functions to model, represent and analyze problem situations that involve variable quantities. Students analyze, model and solve problems using various representations such as tables, graphs and equations.

Find the next three terms in the sequence. 37, 41, 48, 58,71, ...		In a row in her garden, Mrs. Williams planted 1 red tulip, 2 yellow tulips, 4 red tulips, and 7 yellow tulips. If she continues this pattern, what will she plant next?

Standard Five: Data Analysis and Probability

Students pose questions and collect, organize, represent, interpret and analyze data to answer those questions. Students develop and evaluate inferences, predictions and arguments that are based on data.