

# NCTM STANDARDS

## MEASUREMENT

- Understand measurable attributes of objects and the units, systems, and processes of measurement.
- Apply appropriate techniques, tools, and formulas to determine measurements.

## GEOMETRY

- Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.
- Specify locations and describe spatial relationships using coordinate geometry and other representational systems.
- Apply transformations and use symmetry to analyze mathematical situations.
- Use visualization, spatial reasoning, and geometric modeling to solve problems.

## REASONING AND PROOF

- Make and investigate mathematical conjectures.
- Select and use various types of reasoning and methods of proof.

## PROBLEM SOLVING

- Build new mathematical knowledge through problem solving.
- Solve problems that arise in mathematics and in other contexts.
- Apply and adapt a variety of appropriate strategies to solve problems.
- Monitor and reflect on the process of mathematical problem solving.

## CONNECTIONS

- Recognize and use connections among mathematical ideas.
- Understand how mathematical ideas interconnect and build on one another to produce a coherent whole.
- Recognize and apply mathematics in contexts outside of mathematics.

## COMMUNICATION

- Use the language of mathematics to express mathematical ideas precisely.

## REPRESENTATION

- Use representations to model and interpret physical, social, and mathematical phenomena.