



Waukegan Community Unit  
School District #60  
Lincoln Center for Educational Services  
Division of Teaching, Learning, and Professional Practices

## **The Core Principals: Standards for Mathematical Practice**

### **Conceptual Category: Functions**

### **Overview**

The goal of the Standards for Mathematical Practice is to complement the Common Core State Standards by working to engage students in the subject matter, ensuring that they grow in maturity and expertise from Pre-Kindergarten through High School.

#### **Interpreting Functions**

- Understand the concept of a function and use function notation
- Interpret functions that arise in applications in terms of the context
- Analyze functions using different representations

#### **Building Functions**

- Build a function that models a relationship between two quantities
- Build new functions from existing functions

#### **Linear, Quadratic, and Exponential Models**

- Construct and compare linear, quadratic, and exponential models and solve problems
- Interpret expressions for functions in terms of the situation they model

#### **Trigonometric Functions**

- Extend the domain of trigonometric functions using the unit circle
- Model periodic phenomena with trigonometric functions
- Prove and apply trigonometric identities

#### **Standards for Mathematical Practice**

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for an express regularity in repeated reasoning