



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: Number and Quantity**

### **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.

#### **The Real Number System**

- Extend the properties of exponents to rational exponents
- Use properties of rational and irrational numbers

#### **Quantities**

- Reason quantitatively and use units to solve problems

#### **The Complex Number System**

- Perform arithmetic operations with complex numbers
- Represent complex numbers and their operations on the complex plane
- Use complex numbers in polynomial identities and equations

#### **Vector and Matrix Quantities**

- Represent and model with vector quantities
- Perform operations on vectors
- Perform operations on matrices and use matrices in applications

<b>Standards for Mathematical Practice</b>
<ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them</li><li>2. Reason abstractly and quantitatively</li><li>3. Construct viable arguments and critique the reasoning of others</li><li>4. Model with mathematics</li><li>5. Use appropriate tools strategically</li><li>6. Attend to precision</li><li>7. Look for and make use of structure</li><li>8. Look for an express regularity in repeated reasoning</li></ol>