

Objective

By the end of this lesson, you will be able to understand number theory, the number system, and properties of numbers in algebra 1.

Materials and Prep

- Paper
- Pencil
- Calculator (optional)
- No prior knowledge required

Activities

- **Activity 1: Exploring Prime Numbers**
Take a list of numbers and identify which ones are prime numbers. Discuss why prime numbers are unique and important in number theory.
- **Activity 2: Properties of Numbers**
Create a list of numbers and perform operations like addition, subtraction, multiplication, and division. Discuss the commutative, associative, and distributive properties.
- **Activity 3: Number Patterns**
Identify patterns in number sequences such as Fibonacci sequence or triangular numbers. Discuss the significance of patterns in mathematics.

Talking Points

- **Prime Numbers:** "Prime numbers are like the building blocks of all other numbers. They can only be divided by 1 and themselves, making them special."
- **Properties of Numbers:** "The properties of numbers help us understand how numbers behave when we perform operations on them. It's like the rules of the number world."
- **Number Patterns:** "Number patterns are like puzzles waiting to be solved. They help us predict what comes next and understand the order in mathematics."