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## IGEBRAa + b = b + aRM-UPS132Number Sense and Operations

## **OBJECTIVES**

After completing *Algebra Warm-Ups: Number Sense and Operations*, students will be able to

- understand numbers, ways of representing numbers, relationships among numbers, and number systems.
- develop a deeper understanding of very large and very small numbers and of various representations of them.
- compare and contrast the properties of numbers and number systems, including the rational and real numbers.
- use number-theory arguments to justify relationships involving whole numbers.
- understand meanings of operations and how they relate to one another.

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## RIorime numbersa+b=b+aUPS132Number Sense and Operations

- judge the effects of such operations as multiplication, division, and computing powers and roots on the magnitudes of quantities.
- develop an understanding of permutations and combinations as counting techniques.
- compute fluently and make reasonable estimates.
- develop fluency in operations with real numbers using mental computation or paper-and-pencil calculations for simple cases and technology for more-complicated cases.
- judge the reasonableness of numerical computations and their results.