Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2004 Volume V: The Craft of Word Problems

Using Basic Properties to Solve Problems in Math

Guide for Curriculum Unit 04.05.07
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This unit focuses on the Commutative and Associative Properties of Addition, Inverse Properties of Addition and Subtraction, Commutative and Associative Properties of Multiplication, Distributive Property of Multiplication over Addition, Zero Property and the Identity Property for Addition, and the Identity Property for Multiplication. The content section of the unit is divided into sub-topics that give explanations about each topic along with a set of word problems that illustrates each property.

Lesson plans are supported by proper goals and objectives, assessment tools and resources. They are designed to engage and expose students to creative and innovative ways to exercise their critical thinking skills. A variety of techniques, such as classroom discussions, creating their own word problems, and translating word problems into equations using algebraic expressions are used to motivate students' interest in analyzing and solving word problems. This unit is framed around New Haven Standards for teaching word problems to students in grades 5-8.

As a result of using this unit, it is hoped that teachers will gain insight toward a coherent and consistent approach to teaching students how to think logically to solve word problems in math. Also included in this unit are teacher resources, a student reading list and a bibliography.

(Recommended for Mathematics, grades 5-8.)