



Curriculum Units by Fellows of the National Initiative  
2015 Volume V: Problem Solving and the Common Core

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## **Personalizing Problem Solving**

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This curriculum unit was designed to help students develop the mathematical problem solving skills and strategies necessary to access the mathematics embedded within word problems and scenario based problems. The ability to access the mathematics embedded within word problems and story-based scenarios is a major obstacle for students. Often word problems found in textbooks are written with unfamiliar contexts to many students. Personalizing problems to students' interests to make mathematical content and word problems more familiar and relatable to students is a recurring strategy that is emphasized throughout the unit. This unit presents an example personalized scenario with example word problems while discussing how a scenario can be extended to include a variety of mathematical content. Mathematical content discussed include the nine common types of one-step multiplication and division problems, extensions to two-step problems, and extensions of the scenario to influence the development of algebraic reasoning and problem solving. Reading strategies and differentiation of word problems to support student problem solving within a personalized context are also discussed.

(Developed for CCSS Mathematics 1 [Common Core State Standards Integrated 1], grades 9-12; recommended for Integrated Mathematics I, grades 8-9, Middle School Mathematics, grades 6-8, and Algebra I, grades 7-9)

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