GO Solve™ Word Problems

GO Solve Word Problems positions students for success in algebra by laying a foundation of conceptual understanding and problem-solving skills. This engaging, research-based software program is aligned to State and National Standards in Mathematics. Students master problem solving through step-by-step instruction and practice, at their own pace and at a level automatically adapted to each student.

Instructional Content

Go Solve Word Problems teaches students to recognize mathematical situations in word problems, comprehend problems with the aid of graphic organizers, and plan solutions with addition, subtraction, multiplication, and division. The instructional focus of the program is on problem solving, numbers and operations, and communication and representation. Self-paced, interactive tutorials introduce graphic organizers to map out mathematical situations. *Go Solve* is available as three separate titles:

- Addition and Subtraction: Parts-and-Total, Change, Comparison
- Multiplication and Division: Equal Parts, Area and Array
- Advanced Multiplication and Division: Part/Whole, Comparison, Proportion

Instructional Design

GO Solve Word Problems mixes whole class instruction and individualized student practice. Animated tutorials introduce concepts to the entire class and help students build the connection between mathematical situations and the actual word problems they represent. Students practice using the organizers in adaptive sessions that adjust the difficulty of the problems based on each student's performance.

Go Solve incorporates research-validated methods that have been shown to produce good problem-solving habits and improved performance. Specifically, the program explicitly introduces students to the most common types of arithmetical situations reflected in word problems. *GO Solve* uses graphic organizers to help students construct concrete mental models of the situations and relationships among the information in each problem. The program applies a proven instructional approach built around anchored instruction and worked examples.

Assessments

GO Solve Word Problems includes various student assessment features. Interactive activities check for student understanding after each instructional animation. Word problem performance is measured by success on the first try, number of problems solved, and adaptive levels. Detailed performance reports capture data on word problem performance, use of learning supports, and time on task. Performance data can be analyzed by word problem situation, number form, and other characteristics.

Motivation and Engagement

In addition to helping students recognize and build a model of the problem situation presented in word problems, *GO Solve* includes a research-validated technique to enhance motivation and access to problem context. The program prompts students to personalize word problems. *GO Solve* might ask the student to identify a person, such as the name of a friend, family member, or even fictional character. The program will also occasionally prompt for the name of a location or a thing, like a silly prize or the name of a roller coaster. The student's response is immediately incorporated into the next word problem—the problems become about people, places, and things familiar to students. According to research, personalization increases student engagement and comprehension and facilitates connecting the problem to known schema.

Differentiated Instructional Strategies

The *GO Solve* adaptive leveling system assures differentiation for students at all levels. When a student has reached a new milestone or is having trouble using the program, the Message Center automatically alerts the teacher. He/she can use these performance alerts to increase a student's success by:

- Examining reports to see if the student's performance was low across every skill or shows particular difficulty with selected skills
- Directing the student to review the tutorial instead of learning new material
- Sitting with the student and observing the areas of difficulty
- Enabling all the software learning supports, including the hints, calculator, and notebook
- Evaluating whether the student has performed poorly on just one tutorial or most tutorials
- Exploring teaching resources for print-based activities

Strategies for English-Language Learners

Teachers can customize the *GO Solve* software settings to support English-Language learners. Strategies include:

- Setting the text-to-speech setting on and using it throughout the program when the audio button appears
- Using the animation controls to pause and rewind animations
- Using the *Repeat Movie and Replay* Audio features during the tutorial activities

Strategies for Special Education Students

GO Solve contains Universal Design features that accommodate students with disabilities or different learning styles. These include:

- Keyboard focus and navigation
- Text-to-speech with a choice of natural and synthesized voices
- Voice speed and pitch for synthesized speech
- Text captioning during the tutorial animations
- Compatibility with screen readers
- Variable font sizes
- High-contrast settings

Home-School Connection

Teachers can share students' performance and progress reports with their parents during conference times. The   Student Progress Report displays a student's performance over time, including overall practice, tutorials completed, and the proportion of problems answered correctly on the first attempt. The Tutorial Summary Report shows a summary of the student's performance on all tutorial activities, across all modules.

Professional Development

Scholastic provides a variety of on-site, customized *GO Solve* training to ensure successful use of the program. In the *GO Solve* Implementation Training, participants learn to:

- Implement *Go Solve* effectively to provide instruction and practice on solving word problems
- Integrate *Go Solve* into the existing mathematics curriculum
- Assess student progress using the program's management and reporting system
- Develop an implementation plan that works with their existing curriculum and resources
- Weave research-based elements of the program, such as graphic organizers, into their teaching

📖 For additional information about *GO Solve Word Problems,* visit www.tomsnyder.com/gosolve.