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| **ALCOSS: Math 5.1**  Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. | | |
| **Mastered:**  Students can use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. | **Present:**  Students will use the Think Fast activity to demonstrate how symbols are used. | **Going Forward:**  Students will devise their own ways to recognize the order in which the symbols are used to solve problems. |
| **Present and Going Forward Vocabulary:**  Brackets, parentheses, braces | | |
| **Career Connections:**  Math Teacher, Construction Worker, Engineer, Landscape Artist | | |
| **Advanced Understanding & Activity (Alternate activity):**  **Think Fast** (Student page found in Appendix A)  Follow the directions at each letter. Write your answers on the student answer sheet or a separate sheet of your own paper. How many of these can you complete? | | |
| **Literature Connections/Resources:**   * Murphy, Stuart J. Ready, Set, Hop! * Pittman, Helena Clare. A Grain of Rice * Tahan, Malba. The Man Who Counted: A Collection of Mathematical Adventures. * Moses, Will. Will Moses Mother Goose. NY: Philomel Books. 2003 * [www.solving-math-problems.com/math-symbols](http://www.solving-math-problems.com/math-symbols) | | |

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| S | The reason we use symbols or signs in mathematics. |
| Y | Solve for Y in this equation.  [Y(26+4) +(6 x 5)] = {[10(16+4)] – (4 x 15)/3]} |
| M | Think about and record three ways to calculate the perimeter of this figure using mathematical symbols. Which of the three ways do you prefer? Why? |
| B | What if the order of operations were to be changed from PEMDAS? Create a new order of operations. Explain how your new order of operations works. Make up an equation and solve using your new order of operations. Then solve it again using the standard order of operations (PEMDAS). How did the two solutions compare? Why do we have a set order of operations? |
| O | Make a list of at least five math symbols besides +, -, x, ÷, =, ( ), [ ], and {}. Research their meanings and pick at least one which is new to you. Use this symbol in one or more original equations. Solve your equation/s.  Use the following Web site to help with your research:  [www.solving-math-problems.com/math-symbols](http://www.solving-math-problems.com/math-symbols) |
| L | Use mathematical symbols to express the following nursery rhyme. Include ( ), { }, and [ ] in your equations or expressions, as needed.  Baa, baa, black sheep  Have you any wool?  Yes sir, yes sir  Three bags full.  One for my master,  One for my dame,  One for the little boy who lives in the lane.  Baa, baa, black sheep,  Have you any wool?  Yes sir, yes sir  Three bags full.  Choose another nursery rhyme and repeat the exercise. |

6”

4”