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| **NC.1.OA.1**  **Pencils in Cans** | |
| **Domain** | Operations and Algebraic Thinking |
| **Clusters** | Represent and solve problems.  Add and subtract within 20. |
| **Standards** | **NC.1.OA.1** Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem, when solving:  • Add to/Take from-Change Unknown  • Put together/Take Apart-Addend Unknown  • Compare-Difference Unknown  **NC.1.OA.6** Add and subtract, within 20, using strategies such as:  • Counting on  • Making ten  • Decomposing a number leading to a ten  • Using the relationship between addition and subtraction  • Using a number line  • Creating equivalent but simpler or known sums  *Put together-Take Apart/Both Addends Unknown* |
| **Materials** | SF, Cubes or counters, pencil |
| **Task** | Provide materials to the student. Read the problem to the student: *Samuel has 7 pencils. How many can he put in the red can and how many in the blue can? Find as many different combinations as you can Solve the problem and show your thinking with pictures, numbers, or words. Write a number sentence for each combination.* |

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| **Continuum of Understanding** | | |
| **Not Yet Proficient** | * Identifies one or more combinations that do not equal 7 * Does not write number sentences or writes one or more incorrectly | Strategies Used:   * Trial and Error * Counting All * Counting On * Basic Facts * Commutative property * Doubles * Doubles +/- 1, 2 * Other:   Identifies Combinations:   * 0 + 7 &/or 7 + 0 * 1 + 6 &/or 6 + 1 * 2 + 5 &/or 5 + 2 * 3 + 4 &/or 4 + 3 |
| **Progressing** | * Shows possible combinations of 7 but does not include all * Relies on ‘counting all’ as primary strategy for solving the problem * Uses number sentences to record combinations correctly |
| **Meets Expectations** | * Shows all possible combinations of 7 * Uses strategies other than counting all * Recognizes similar combinations due to the commutative property of addition (e.g., 1 + 6 = 6 + 1) * Uses number sentences to record combinations correctly |

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| **Standards for Mathematical Practice** |  |
| **1. Makes sense and perseveres in solving problems.** |
| **2. Reasons abstractly and quantitatively.** |
| 3. Constructs viable arguments and critiques the reasoning of others. |
| **4. Models with mathematics.** |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| **7. Looks for and makes use of structure.** |
| 8. Looks for and expresses regularity in repeated reasoning. |

**Samuel has 7 pencils. How many can he put in the red can and how many in the blue can?**

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| Solve the problem. Find as many different combinations as you can  Show your thinking with pictures, numbers, or words.  Write a number sentence for each combination. |