|  |  |
| --- | --- |
| **NC.3.OA.8**  **Packs of Juice Boxes** | |
| **Domain** | Operations and Algebraic Thinking |
| **Cluster** | Solve two-step problems. |
| **Standard(s)** | **NC.3.OA.8** Solve two-step word problems using addition, subtraction, and multiplication, representing problems using equations with a symbol for the unknown number. |
| **Materials** | Paper, pencils, calculators, manipulatives, white board and dry-erase markers (optional) |
| **Task** | * Each of the 20 students in Mr. Morgan’s class sent in a pack of juice boxes for the third grade party. Some packs came with six juice boxes and some came with four juice boxes. If there was a total of 104 juice boxes, how many four-packs and how many six-packs of juice boxes were there? * Write equations to represent the story, using symbols for the unknown numbers. Solve for the unknown using pictures, words, or numbers. Show your work. |

|  |  |  |
| --- | --- | --- |
| **Rubric** | | |
| **Level I**  Not Yet | 1. **Level II** 2. Progressing | **Level III**  Meets Expectation |
| * Student uses inappropriate solution strategy and does not get the correct answer. | * Finds the correct answer, but there may be inaccuracies or incomplete justification of solution ***OR*** * Uses partially correct strategy, but gets the wrong answer. | * Accurately solves problem (12 six-packs and 8 four-packs) * Use appropriate pictures, words, or numbers to justify the solution * Student accurately writes equations that represent solution. |

|  |
| --- |
| **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. |

**Packs of Juice Boxes**

Each of the 20 students in Mr. Morgan’s class sent in a pack of juice boxes for the third grade party. Some packs came with six juice boxes and some came with four juice boxes. If there was a total of 104 juice boxes, how many four-packs and how many six-packs of juice boxes were there?

Write equations to represent the story, using symbols for the unknown numbers. Solve for the unknown using pictures, words, or numbers. Show your work.