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| **NC.3.OA.6**  **Planting Tomatoes** | |
| **Domain** | Operations and Algebraic Thinking |
| **Cluster** | Understand properties of multiplication and the relationship between multiplication and division. |
| **Standard(s)** | **NC.3.OA.6** Solve an unknown-factor problem, by using division strategies and/or changing it to a multiplication problem. |
| **Materials** | Paper, pencils, squares or other counters, activity sheet or one inch grid white boards and dry-erase markers (optional) |
| **Task** | Mr. Nala’s class is making a garden. They bought 42 tomato plants. They want them in rows that have the same number of plants. There needs to be between 2 and 22 plants in each row. Use your tiles to show a model of how they could make the garden. For each solution, write an equation.  Write a sentence to explain how you solved the problem. |

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| **Rubric** | | |
| **Level I**  Not Yet | 1. **Level II** 2. Progressing | **Level III**  Meets Expectation |
| * Incorrect answer and work are given. | * Finds the correct answer, but there may be inaccuracies or incomplete justification of solution **OR** * Uses partially correct work but does not have a correct solution. | * Accurately finds the answer (2 rows of 21, 3 rows of 14, 6 rows of 7, 7 rows of 6, 14 rows of 3, 21 rows of 2). * Uses an appropriate model to represent and justify the solution. **AND** * Writes a clear and appropriate sentence about their strategy. |

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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. |

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