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| **Arranging Chairs– 6.NS.4** | |
| **Domain** | **The Number System** |
| **Cluster** | **Compute fluently with whole numbers and find common factors and multiples.** |
| **Standard(s)** | **6.NS.4** Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express 36 + 8 as 4 (9 + 2). |
| **Materials** | Activity sheet |
| **Task** | **Arranging Chairs**  There are 30 desks in Mrs. Thomas’ classroom. There are 24 desks in Mr. Gomez’ classroom.  Part 1:  If they want to put the desks into groups that have the same number of desks in both classrooms what choices do they have for the size of the groups?  Part 2:  What is the largest number of desks in a group that the two teachers could make in their classroom?  Part 3:  Write an explanation about how you solved Part 2 above. |

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| **Rubric** | | |
| **Level I** | 1. **Level II** | **Level III** |
| Developing Proficiency   * Student uses inappropriate solution strategy and does not get the correct answer. | Not Yet Proficient   * There are one or two errors. | Proficient in Performance   * Accurately solves problem * Part 1: 30 desks- groups of: 1, 2, 3, 5, 6, 10, 15, 30.   24 desks- groups of: 1, 2, 3, 4, 6, 8, 12, 24  Both teachers could make groups of 1, 2, 3, or 6 desks.   * Part 2: The largest number of desks is 6. * Part 3: The answer should clearly and accurately discuss comparing the factors of 24 and 30 and identifying the factor common to both lists that was the greatest number, i.e., greatest common factor. |

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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. |

**Arranging Chairs**

There are 30 desks in Mrs. Thomas’ classroom. There are 24 desks in Mr. Gomez’ classroom.

Part 1:

If they want to put the desks into groups that have the same number of desks in both classrooms what choices do they have for the size of the groups?

Part 2:

What is the largest number of desks in a group that the two teachers could make in their classroom?

Part 3:

Write an explanation about how you solved Part 2 above.