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| **NC.4.NBT.4****Filling the Auditorium** |
| **Domain** | Number and Operations in Base Ten |
| **Cluster** | Use place value understanding and properties of operations to perform multi-digit arithmetic. |
| **Standard(s)** | **NC.4.NBT.4** Add and subtract multi-digit whole numbers up to and including 100,000 using the standard algorithm with place value understanding. |
| **Materials** | pencil, activity sheet |
| **Task** | **Filling the Auditorium**On a field trip, three different schools send their fourth graders across town to the high school auditorium for a math competition. Each school sends between 120 and 170 students each. There are 417 students total. **Part 1:**How many students could have come from each school? Show your thinking. **Part 2:** Find another possible solution to this task. Show your thinking. **Part 3:**If the number of students from each school was the same, how many students came from each school? Explain how you found your solution.  |

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| **Rubric** |
| **Level I****Not Yet** | **Level II****Progressing** | **Level III****Meets Expectation** |
| The student is unable to use strategies to find correct answers to any aspect of the task.  | The student correctly and completely answers 1-2 parts of the task. | The answers are to all parts are complete and correct. Part 1: All three numbers add up to 417.Part 2: All three numbers add up to 417.Part 3: Each school had 139 fourth graders. The explanation is clear and accurate. |

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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 |

**Filling the Auditorium**

 On a field trip, three different schools send their fourth graders across town to the high school auditorium for a math competition. Each school sends between 120 and 170 students each. There are 417 students total.

**Part 1:**

How many students could have come from each school? Show your thinking.

**Part 2:**

Find another possible solution to this task. Show your thinking.

**Part 3:**

If the number of students from each school was the same, how many students came from each school? Explain how you found your solution.

**Scoring Examples**

**Not Yet:** The student was unable to answer any part of the task correctly.



**Progressing:** The student is able to find two different solutions for the number of students who attended from each school in Part 1 and Part 2. However, the student is unable to find the correct answer for Part 3.



**Meets Expectation:** The student was able to find correct answers to all three parts of the task and explain the solution for Part 3.

