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| **Swimming Relay– 6.NS.3** | |
| **Domain** | **The Number System** |
| **Cluster** | **Compute fluently with whole numbers and find common factors and multiples.** |
| **Standard(s)** | **6.NS.3** Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. |
| **Materials** | Activity sheet |
| **Task** | **Swimming Relay**  At the swim meet the Tigers and the Hawks are tied heading into the last race, the 200 meter medley relay race. Below is information from the final race.   |  |  |  | | --- | --- | --- | |  | Tigers | Hawks | | Back stroke | 32.45 seconds | 32.51 seconds | | Butterfly | 29.89 seconds | 29.86 seconds | | Breast stroke | 38.56 seconds | 38.57 seconds | | Freestyle | 23.45 seconds | ? |   Part 1:  What was the total time for the Tigers?  Part 2:  What was the time of the 3 swimmers for the Hawks?  Part 3:  The race was decided by only one hundredth of a second. What were the two possible times that the Hawks could have had for the freestyle part of the race?  Part 4:  Write an explanation about how you solved Part 3. |

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| **Rubric** | | |
| **Level I** | 1. **Level II** | **Level III** |
| * Student uses inappropriate solution strategy and does not get the correct answer. | 1. Not Yet Proficient  * There are one or two errors. | Proficient in Performance   * Accurately solves problem * Part 1: 124.35 seconds. * Part 2: 100.94 seconds. * Part 3: The Hawks freestyle swimmer could have swam either 23.40 or 23.42 seconds. * Part 4: 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. |

**Swimming Relay**

At the swim meet the Tigers and the Hawks are tied heading into the last race, the 200 meter medley relay race. Below is information from the final race.

|  |  |  |
| --- | --- | --- |
|  | Tigers | Hawks |
| Back stroke | 32.45 seconds | 32.51 seconds |
| Butterfly | 29.89 seconds | 29.86 seconds |
| Breast stroke | 38.56 seconds | 38.57 seconds |
| Freestyle | 23.45 seconds | ? |

Part 1:

What was the total time for the Tigers?

Part 2:

What was the time of the 3 swimmers for the Hawks?

Part 3:

The race was decided by only one hundredth of a second. What were the two possible times that the Hawks could have had for the freestyle part of the race?

Part 4:

Write an explanation about how you solved Part 3.