|  |  |
| --- | --- |
| **Packing Beads- 6.NS.2** | |
| **Domain** | **The Number System** |
| **Cluster** | **Compute fluently with whole numbers and find common factors and multiples.** |
| **Standard(s)** | **6.NS.2** Fluently divide multi-digit numbers using the standard algorithm. |
| **Materials** | Activity sheet |
| **Task** | **Packing Beads**  Part 1:  A bead factory packs beads into bags with 87 beads each. They package 37,584 beads a day. Each day how many bags will they pack?  Part 2:  After taking a survey, they decide to pack only smaller bags with 29 beads each. If they pack the same number of beads each day, how many bags will they pack?  Part 3:  How many times more is the answer in Part 2 compared to the answer in Part 1? Explain why this is the case? |

|  |  |  |
| --- | --- | --- |
| **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: 37,584 divided by 87 equals 432 bags. * Part 2: 37,584 divided by 29 equals 1,296 bags. * Part 3: The answer for Part 2 is three times greater than the answer in Part 1. The divisor in Part 2 (29) is one-third the divisor in Part 1 (87), which means the quotient will be tripled. |

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

**Packing Beads**

Part 1:

A bead factory packs beads into bags with 87 beads each. They package 37,584 beads a day. Each day how many bags will they pack?

Part 2:

After taking a survey, they decide to pack only smaller bags with 29 beads each. If they pack the same number of beads each day, how many bags will they pack?

Part 3:

How many times more is the answer in Part 2 compared to the answer in Part 1? Explain why this is the case?