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| **Comparing Pencil Collections- 6.EE.1** | |
| **Domain** | **Expressions and Equations** |
| **Cluster** | **Apply and extend previous understandings of numbers to the system of rational numbers.** |
| **Standard(s)** | **6.EE.1** Write and evaluate numerical expressions involving whole-number exponents. |
| **Materials** | Activity sheet |
| **Task** | **Comparing Pencil Collections**  Lizette has 5 pencils. The number of pencils her entire class has is equal to Lizette’s number of pencils tripled five times. The number of pencils in the Lizette’s school is equal to Lizzette’s number of pencils quadrupled six times.  Part 1:  Find the number of pencils for Lizette’s class and Lizette’s grade level.  Part 2:  Write an explanation about how you solved this task. |

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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: Class: 5 x 3 x 3 x 3 x 3 x 3= 5 x 35 = 5 x 243 = 1,215 pencils. * School: 5 x 4 x 4 x 4 x 4 x 4 x 4 = 5 x 46 = 5 x 4,096 = 20,480 pencils. * Part 2: 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. |

**Comparing Pencil Collections**

Lizette has 5 pencils. The number of pencils her entire class has is equal to Lizette’s number of pencils tripled five times. The number of pencils in the Lizette’s school is equal to Lizzette’s number of pencils quadrupled six times.

Part 1:

Find the number of pencils for Lizette’s class and Lizette’s grade level.

Part 2:

Write an explanation about how you solved this task.