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| **NC.3.OA.1****Ants!** |
| **Domain** | Operations and Algebraic Thinking |
| **Cluster** | Represent and solve problems involving multiplication and division. |
| **Standard(s)** | **NC.3.OA.1** For products of whole numbers with two factors up to and including 10:* Interpret the factors as representing the number of equal groups and the number of objects in each group.
* Illustrate and explain strategies including arrays, repeated addition, decomposing a factor, and applying the commutative and associative properties.
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| **Materials** | Activity sheet, pencils, white boards and dry-erase markers (optional) |
| **Task** | **Part 1:** Nathan’s mom has ants in her house. Ants have 6 legs. How many ants could there have been if she saw between 35 and 50 legs?**Part 2:** Make a model with manipulatives or by drawing to show how you get each solution. Write a sentence explaining your thinking.  |

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| **Rubric** |
| **Level I**Not Yet | 1. **Level II**
2. Progressing
 | **Level III**Meets Expectation |
| * Incorrect answer and work are given.
 | * Finds the correct answer, but there may be inaccuracies or incomplete justification of solution.

**OR*** Uses partially correct work but does not have a correct solution.
 | * Accurately finds the answers (6, 7 or 8 ants). **AND**
* Uses an appropriate model to represent and justify the solution. **AND**
* Writes a clear and accurate sentence explaining their strategies.
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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. |

**Ants!**

Draw a picture and write an equation for each part of the task.

**Part 1:** Nathan’s mom has ants in her house. Ants have 6 legs. How many ants could there have been if she saw between 35 and 50 legs?

**Part 2:** Make a model with manipulatives or by drawing to show how you get each solution. Write a sentence explaining how you know that your answers are correct.