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| **NC.3.OA.3****Raking Leaves** |
| **Domain** | Operations and Algebraic Thinking |
| **Cluster** | Represent and solve problems involving multiplication and division. |
| **Standard(s)** | **NC.3.OA.3** Represent, interpret, and solve one-step problems involving multiplication and division.* Solve multiplication word problems with factors up to and including 10. Represent the problem using arrays, pictures, and/or equations with a symbol for the unknown number to represent the problem.
* Solve division word problems with a divisor and quotient up to and including 10. Represent the problem using arrays, pictures, repeated subtraction and/or equations with a symbol for the unknown number to represent the problem.
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| **Materials** | Activity sheet, pencils, counters or square tiles  |
| **Task** | Libby is earning some spending money by raking leaves for her grandma. She gets paid $7 a bag for each trash bag that she fills with leaves. 1. Use counters or square tiles to model how many bags she would need to fill if she wanted to earn more than $30. What is the smallest number of bags she would need to fill?
2. Find at least 3 ways she could make more than $30 by raking leaves. For each way write an equation.
3. If her grandma has 8 trash bags, what is the most money she could make?
4. Show your thinking with a drawing or with numbers.
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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: There could be 5 or more bags, and she would have to fill at least 5 bags, she could make $35, $42, $49 and $56 is the most that she could make.

**AND*** Communicates thinking with a drawing or with numbers.
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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. |

**Raking Leaves**

Libby is earning some spending money by raking leaves for her grandma. She gets paid $7 a bag for each trash bag that she fills with leaves.

1. Use counters or square tiles to model how many bags she would need to fill if she wanted to earn more than $30. What is the smallest number of bags she would need to fill? Show your thinking with a drawing or with numbers.
2. Find at least 3 ways she could make more than $30 by raking leaves. Show your thinking with a drawing or with numbers.
3. If her grandma has 8 trash bags, what is the most money she could make? Show your thinking with a drawing or with numbers.