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| **NC.5.NF.4****Fundraiser Brownies** |
| **Domain** | **Numbers and Operations - Fractions** |
| **Cluster** | **Apply and extend previous understandings of multiplication and division to multiply and divide fractions** |
| **Standard(s)** | **NC.5.NF.4** Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction, including mixed numbers.* Use area and length models to multiply two fractions, with the denominators 2, 3, 4.
* Explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number and when multiplying a given number by a fraction less than 1 results in a product smaller than the given number.
* Solve one-step word problems involving multiplication of fractions using models to develop the algorithm.
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| **Materials** | Paper and pencil |
| **Task** | Mrs. Reid told the 5th grade students at Jackson Elementary School that she would bring them brownies if they handed in all of the fundraiser money on time. There are four 5th grade classes at the school. Mrs. Reid made 12 pans of brownies in preparation for the due date. If the brownies are shared equally among the classes, how many pans will each class get? On the day of the fundraiser, only $\frac{3}{4}$ of the classes handed in their money on time. How many pans of brownies will Mrs. Reid need to bring to school? Draw a diagram to show your thinking.Write two equations that could be used to represent this situation.  |

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| **Rubric** |
| **Level I****Not Yet** | 1. **Level II**
2. **Progressing**
 | **Level III****Meets Expectations** |
| * Student is not yet able to represent or solve this task without assistance.
 | Student independently completes 2 of the 3 responses below:* Student draws a clear diagram for the task.
* Student identifies that Mrs. Reid will need to bring 9 pans of brownies.
* Student records two equations that could be used to solve this task:
	+ 12 ÷ 4 x 3 = 9
	+ $\frac{3}{4}$ x 12 = 9
 | Student independently completes all of the 3 responses below:* Student draws a clear diagram for the task.
* Student identifies that Mrs. Reid will need to bring 9 pans of brownies.
* Student records two equations that could be used to solve this task:
	+ 12 ÷ 4 x 3 = 9
	+ $\frac{3}{4}$ x 12 = 9
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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. |

**Fundraiser Brownies**

Mrs. Reid told the 5th grade students at Jackson Elementary School that she would bring them brownies if they handed in all of the fundraiser money on time. There are four 5th grade classes at the school. Mrs. Reid made 12 pans of brownies in preparation for the due date.

If the brownies are shared equally among the classes, how many pans will each class get?

On the day of the fundraiser, only $\frac{3}{4}$ of the classes handed in their money on time. How many pans of brownies will Mrs. Reid need to bring to school?

Draw a diagram to show your thinking.

Write two equations that could be used to represent this situation.