Problem Type

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| **Standards** | **Problem Type** | **Example Problem** | **Number Sentence** | **Focus** | **Discussion Points** |
| 5. NF. 1  5. NF. 2 | **Equal Sharing** | *Pg. 30 H*. At the school carnival, Daniel won 6 chocolate cream pies. He plans to share them with his 7 friends. If all 8 people get to the same amount of pie, how much pie can each person have? | *Possible outcomes*  1/2+1/4  ½+2/8 |  | So how much pie do they get?  How could we combine these fractions? |
| 5. NF. 1  5. NF. 2  5. NF. 4b (area)  5. NF. 6  \*5. NF. 7c Whole # and unit fractions | **Multiple Groups** | Multiplication: pg. 66 *F*. Bernice used 2/3 yard of ribbon for each bow she makes. How much ribbon would she use if she made 7 bows?  Area: Find the area of a flower bed with the width of 3 yards and a length 2/3 of a yard.  Measurement division: pg. 66 *J*. Emma drinks 2/3 cup of water for every mild she hikes. Her water bottle holds 4 cups of water. How many miles can she hike before her water runs out.  5. NF. 7c How much chocolate will each person get if 3 people share ½ Ib of chocolate equally?  How many 1/3- cup servings are in 2 cups of raisins? | F. 7 X 2/3=  3 X 2/3=  J. \_\_ X 2/3 = 4  \* If the focus is to meet 5. NF. 7c you will want the amount per group to be a **unit fraction**.  ½ ÷ 3=  2÷1/3= | Multiplication problems include whole #s and mixed # with fractions (not just unit fractions)  *This is not fraction times a fraction* | Review multiplication of fractions…focus on mathematical practices and number notation.  Discuss why the product is smaller yet we are multiplying. (5. NF. 5b) Could continue conversations through # talks  Pull out visual models and equations |

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| **Standards** | **Problem Type** | **Example Problem** | **Number Sentence**  Depending on which unit the students chose. | **Focus** | **Discussion Points** |
| 5. NF. 1  5. NF. 2 | **Adding and Subtracting fractions** | Introduction: pg. 180 Aisha has 25 pennies. Imani has 2 dimes. How much money do they have altogether?  *A*.Lupita has 2 5/6 packages of clay. She used 1/3 packages to make a model of a mountain. How much clad does Lupita have left? (2, ¾) (1 ½, ¾) (2 1/6, ½) (3 1/8, ½) (2 2/3, 5/6)  Additions and Subtraction Equations pg. 210-211 | 25 +20  2 ½ + 2  Subtraction  possible  *Fraction times a fraction is the focus* | Hope for students to chose a common unit.    # talks: 1- 1/6=  2-1/9=  In context using story problems  Equations without context using naked number sentences | Pg. 180  Pg. 183 visual and relational thinking  What common unit (denominator) could help us solve this problem  -combining fractions and developing an understanding of how to group fractions to make whole  -understanding of equivalent fractions |
| 5. NF. 4a  5. NF. 4b  5. NF. 6  5. NF. 7a  5. NF. 7c | **Partial Groups** | Multiplication: I have \_\_bags of candy. A bag of candy weighs \_\_ pound. How many pounds of candy do I have?  (5, 2) (2 ½, ½) (3/4, ½)  *Pg. 212 F*. Myra was watching a video online that was 4 minutes long. The progress bar showed that she had watched 2/3 of the video. How many minutes had she watched? | 5 x 2  2 ½ X ½  ¾ of ½  2/3 X 4= | These problems involve part of parts  -it may be helpful to begin with whole # sets so students to able the # number of groups and the amount per group  Many students will want to use the communicative property here…it is important for students to understand 2/3 X 4 versus 4 X 2/3. | How does the way you solve the first number set relate to the way you solve the second and third number set?  How important is the denominator when you are taking a part of a part?  5. NF. 4a |
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|  | **Partial Groups (continued)** | Measurement Division: Pg. 212  Modified B. It takes 1/8 cup of seeds to fill a bird feeder. How many birdfeeders can you fill with \_\_\_cups of seeds?  4 3 ¼ 5 ½  Partitive division: pg 213  Modify A. Mom used ½ pound of cheese to make 3 pans of mac and cheese. How much cheese did she need for each pan?  Multiplication and division equations without context using naked number sentences  \* 2 additional area/array multiplication and division problems are on page 214 | 4÷1/8= \_\_\_X 1/8 = 4  ½ ÷3= 3 X \_\_=1/2  Pg. 214-216 | Here we are focusing on the division of a unit fraction  Whole numbers and unit fractions only  On the division- our standards focus on unit fraction and whole numbers only | 5. NF. 7  (fifth grade standards only call for whole number and unit fractions…the third number set is leading students toward the 6th grade standard/progression.) |