

# Mathematics CFA Template

## Pre-Instruction

1. List the Standard. Underline the nouns (what students will know) and highlight the verbs (what student will do):

5.NF.7c-**Solve** word problems involving **division** of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, by **using** visual fraction models and equations to represent the problem.

### 2. Mathematical Practices

- #1-Make sense and persevere in solving them
- #2- Reason abstractly and quantitatively
- #3-Construct viable arguments and critique the reasoning of others
- #4-Model with mathematics
- #5-Use appropriate tools strategically
- #6-Attend to precision
- #7-Look for and make use of structure
- #8- Look for and express regularity in repeated reasoning

3. I Can Statements – Put learning targets in student friendly terms.

1. I can solve word problems by dividing fractions.
2. I can use models to represent/show how I solved a fraction word problem.
3. I can write and solve an equation involving division of fractions.

*Depth of Knowledge of the standard (Highlight the Level of the Learning Target):*

*Level 1 Recall; **Level 2 – Skill/Concept; Level 3 – Strategic Thinking**; Level 4 – Extended Thinking*

4. List the skills students need to know in order to begin this standard:

1. What a unit fraction is.
2. Concept of division.
3. Vocabulary-Non-zero whole number, fraction models, equations.
4. Read and understand/make sense of word problems.

5. What type of assessment am I going to write? [**selected response** (m/c, t/f, y/n, matching, fill in \_\_\_\_ ) **or constructed response** (**short:** word, phrase, sentence, single problem; **extended:** multi-step operations in math, problem solving)] List the assessment questions.

Exit tickets-Matching vocabulary

Constructive response-short: few questions

Fraction word problems using division using non-zero whole numbers and unit fractions

Model and provide an equation for each problem.

1. Grandma is making snicker doodle cookies. Each batch takes  $\frac{1}{2}$  stick of butter. She has 4 sticks of butter. How many batches of cookies can she make?
2. Susie is making costumes for the play. She needs  $\frac{1}{4}$  yard of lace for each costume. If she has 2 yards of lace, how many costumes can she make?
3. I have  $\frac{1}{2}$  a pizza. My three friends and I are going to share it. How much pizza will each person get?
4. Sam and 4 friends will share  $\frac{1}{4}$  of a dollar equally. How much will each friend receive?

### 6. Scoring Guide

**Exceeds Expectations:** Student answered 4 out of 4 with various/creative models.

**Proficient:** Student answered 4 out of 4 with models.

**Approaching Proficiency:** Student answered 3 out of 4 with some models.

**Not Proficient:** Student answered less than 3. Little concept of models.

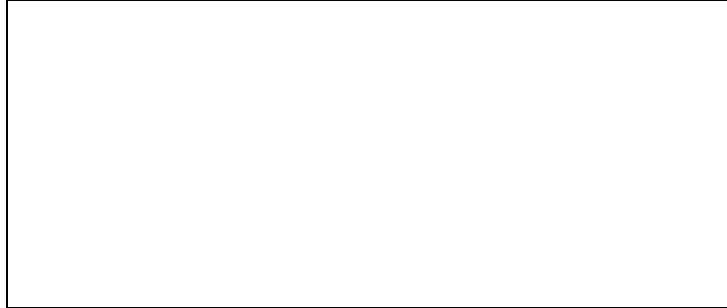
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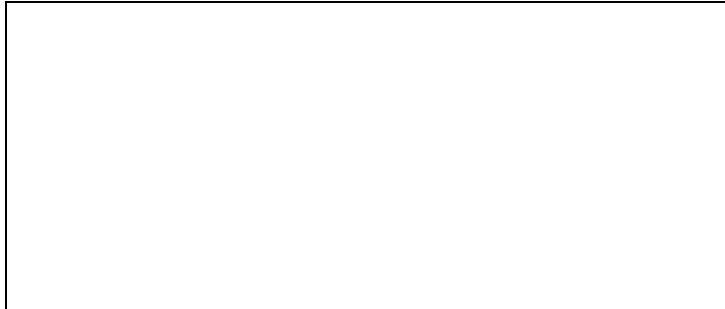
Power Standard: 5.NF.7C

Directions: Using your fraction models solve the following questions. Model and write an equation for each problem.

1. Grandma is making snicker doodle cookies. Each batch takes  $\frac{1}{2}$  stick of butter. She has 4 sticks of butter. How many batches of cookies can she make?



2. Susie is making costumes for the play. She needs  $\frac{1}{4}$  yard of lace for each costume. If she has 2 yards of lace, how many costumes can she make?



3. I have  $\frac{1}{2}$  a pizza. My three friends and I are going to share it. How much pizza will each person get?



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Power Standard: 5.NF.7c **Solve** word problems involving **division** of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, by **using** visual fraction models and equations to **represent** the problem.

Tracking Sheet

Class: \_\_\_\_\_ Grade: 5

| Student | 1 <sup>st</sup> Attempt |                         |            |                      | 2 <sup>nd</sup> Attempt |                         |            |                      | 3 <sup>rd</sup> Attempt |                         |            |                      |
|---------|-------------------------|-------------------------|------------|----------------------|-------------------------|-------------------------|------------|----------------------|-------------------------|-------------------------|------------|----------------------|
|         | Not Proficient          | Approaching Proficiency | Proficient | Exceeds Expectations | Not Proficient          | Approaching Proficiency | Proficient | Exceeds Expectations | Not Proficient          | Approaching Proficiency | Proficient | Exceeds Expectations |
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| 6. Scoring Guide  |
| <p><b><u>Exceeds Expectations:</u></b> Student answered 4 out of 4 with various/creative models.</p> <p><b><u>Proficient:</u></b> Student answered 4 out of 4 with models.</p> <p><b><u>Approaching Proficiency:</u></b> Student answered 3 out of 4 with some models.</p> <p><b><u>Not Proficient:</u></b> Student answered less than 3. Little concept of models.</p> |