COMMON FORMATIVE ASSESSMENT PLANNING TEMPLATE

--FIRST DRAFT--

Grade Level or Course: 5

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Assessment Topic: Fractions

Selected Power Standards: List standards by number and include the full text here. Then "unwrap" to identify what students need to know and be able to do. Underline the concepts (important nouns or noun phrases) and circle the skills (verbs).

1. **Order, model, and generate equivalent fractions.**
2. **Develop and evaluate strategies for computing with fractions.**

Graphic Organizer of "Unwrapped" Concepts and Skills

Concepts: Need to Know about Fractions

- Fractions
- Whole Numbers
- Equivalent fractions

Skills: Be able to do

(Next to each skill, write number in parentheses indicating approximate level of Bloom's Taxonomy of thinking skills. Refer to Bloom's Taxonomy resource in supporting documents.)

(3) Order (fractions)

(3) Model (fractions)

(6) Generate (fractions)

(2) Develop (strategies)

(5) Evaluate (strategies)

(4) Compute (fractions)

Big Ideas from "Unwrapped" Power Standards

1. The value of a fraction can be shown by charts or diagrams (non linguistic representation).

2. Fractions are less than a whole number.

3. Fractions can be added or subtracted by finding a common denominator.

4. Fractions can be ordered greatest to smallest or smallest to greatest.

Essential Questions Matched to Big Ideas

1. How can you show the value of a fraction?

2. How do fractions compare to whole numbers and other fractions (less than, greater than, equivalent)?

3. How do I order fractions (greatest to smallest or smallest to greatest)?

4. How do I compute fractions (add, subtract)?

SECTION 1: Selected-Response Items—Design multiple choice, matching, true-false, and/or fill-in items to assess student understanding of the following "unwrapped" concepts and skills represented on your graphic organizer. Indicate level of thinking skill in parentheses. *Match assessment items to rigor of skill level.* (Use additional space as needed.)

***See next page**

Find the sum or difference in simplest form.

1) $\frac{2}{9} + \frac{4}{9}$

a. $\frac{6}{18}$

b. $\frac{2}{3}$

c. $\frac{5}{9}$

d. $\frac{7}{9}$

2) $\frac{7}{8} - \frac{3}{8}$

a. $\frac{3}{8}$

b. $\frac{10}{16}$

c. $\frac{1}{2}$

d. $\frac{1}{4}$

3) $\frac{3}{16} + \frac{1}{8}$

a. $\frac{4}{16}$

b. $\frac{1}{6}$

c. $\frac{4}{24}$

d. $\frac{5}{16}$

4) $1 - \frac{2}{7}$

a. $1\ \frac{2}{7}$

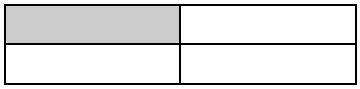
b. $1\ \frac{1}{7}$

c. $\frac{5}{7}$

d. $\frac{1}{7}$

5) Which diagram represents ¾?

A.



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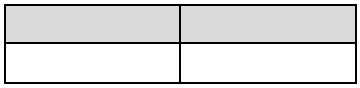
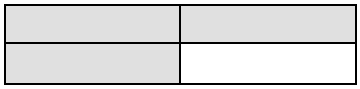
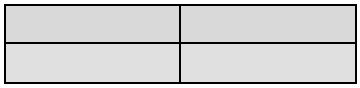


C.



D.



6) $\frac{2}{9}$ ◯ $\frac{4}{9}$

a. <
b. >
c. =

7) $\frac{2}{3}$ ◯ $\frac{10}{15}$

a. <
b. >
c. =

Answer the following questions True or False.

8) _____ $\frac{6}{1}$ is equal to 6.

9) _____ $4\frac{3}{5}$ is equal to $\frac{23}{5}$

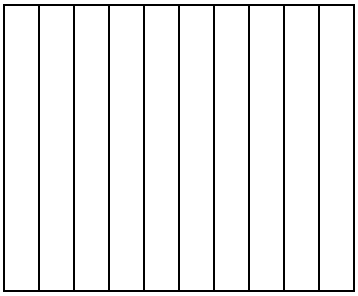
10) _____ the simplest form of $\frac{15}{18}$ is $\frac{2}{3}$

Answer Key:

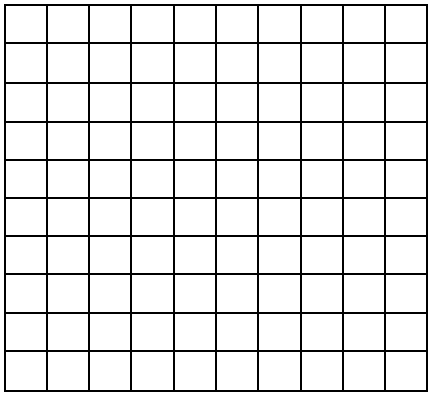
1. b
2. c
3. b
4. c
5. c
6. a
7. c
8. T
9. T
10. F

SECTION 2: <u>Extended</u> Constructed-Response—Design an extended-response item to evaluate student understanding of the following "unwrapped" concepts and skills represented on your graphic organizer. Include level of thinking skill in parentheses. *Match item to rigor of skill level.* Evaluate student work using the Task-Specific Scoring Guide below (to be completed).

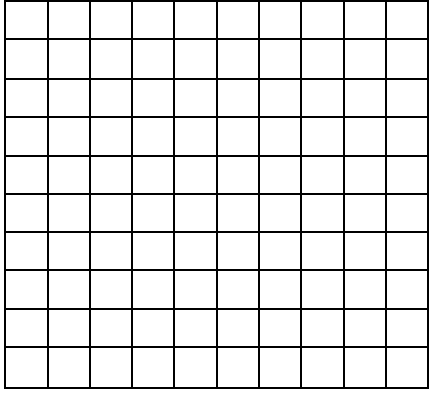
1. Shade in the answer to $\frac{8}{10} - \frac{5}{10}$



2. Shade in the answer to $\frac{20}{25} + \frac{15}{20}$



3. Order the fraction least to greatest 1, 3, 11, 5



2 9 36 6

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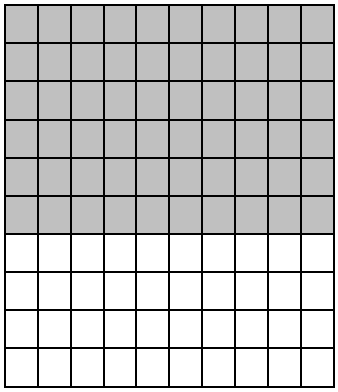
4. Write a number sentence that represents charts below.



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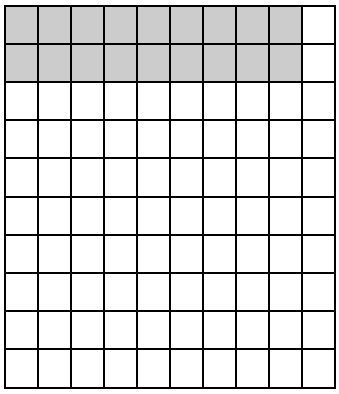

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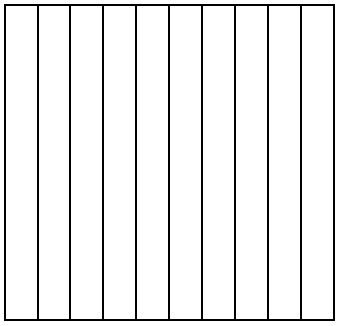
5. Write a number sentence that represents charts below.



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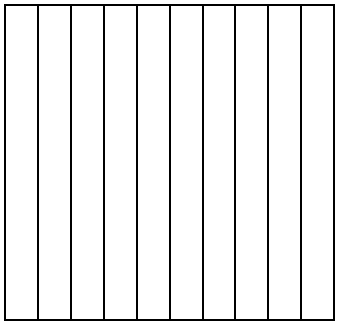

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6. Gavin gave ½ of his stamp collection to his sister. He gave part of his collection to his friend and kept 3/8 for himself. What part of his collection did he give to his friend? (Show your thinking and answer using pictures and numbers.)

7. Task-Specific Scoring Guide:

Exemplary

- All “Proficient” criteria *plus*:
- Verifies Problem
- Written explanation to describe the steps used to solve the equation

Proficient

- Correct answer
- Uses pictures and numbers to solve problem
- Shows all steps to solve equation
-
-
-

Progressing

- Meets __2__ of the “Proficient” criteria

Beginning

- Meets fewer than _2_ of the “Proficient” criteria
- Task to be repeated after remediation

Teacher’s Evaluation_____

Comments regarding student’s performance:

SECTION 3: Short Constructed-Response

Note to Teachers: This portion of the common formative assessment requires students to demonstrate their *integrated* understanding of all the "unwrapped" concepts and skills from the targeted Power Standards by expressing their understanding of the Big Ideas in their own words. Copy your planned Essential Questions (and corresponding Big Idea responses) for your own reference in the space provided.

1. How can you show the value of a fraction through non linguistic representation (chart, diagram)?

2. How do fractions compare to whole numbers?

3. How do fractions compare to other fractions (less than, greater than, equivalent)?

4. How do I order fractions (greatest to smallest or smallest to greatest)?

5. How do I compute fractions (add, subtract)?

Student Directions**:** Write a Big Idea response for each of the following Essential Questions. Include supporting details and any vocabulary terms from the "unwrapped" concepts you have been learning for each response. Your responses will be evaluated using the Generic Scoring Guide below.

1. How can you show fractions through diagrams?

2. How do fractions compare to whole numbers and other fractions (less than, greater than, equivalent)?

3. How do I order fractions (greatest to smallest or smallest to greatest)?

4. How do I add or subtract fractions?

Generic Scoring Guide:

Exemplary
- All “Proficient” criteria *plus*:
- Makes connections to other areas of school or life
- Provides example(s) as part of explanation

Proficient
- States Big Ideas correctly in own words
- Provides supporting details for each one
- Includes vocabulary of “unwrapped” concepts in explanation

Progressing
- Meets 2 of the “Proficient” criteria

Beginning
- Meets fewer than 2 of the “Proficient” criteria
- Task to be repeated after remediation

Teacher’s Evaluation_____

Comments regarding student’s performance:

Design Team Reflections after Administration of Assessment to Students

1. Which assessment items produced the results we intended?

2. Which items do we need to revise?

3. Regarding the design, administration, scoring, and analysis of the assessment, what worked? What didn't?

4. What do we need to do differently next time?

5. What should we again do the same?