Name: ANSWER KEY Block: _____ Date: _____

Fractions (Part 2)

STUDY GUIDE

DO YOU FEEL READY FOR THE TEST?! Where do you feel you are?	3 - MS	2 - PMS	1 - DNM
Competency 3 - Learning Target #1: I can add fractions with common denominators.			

DIRECTIONS: Add the fractions. Simplify your answer. Show all your work!

1.) $\frac{2}{7} + \frac{4}{7} =$ $\frac{6}{7}$

2.) $\frac{2}{10} + \frac{3}{10} =$ $\frac{5}{10} \div 5 = \frac{1}{2}$

3.) $\frac{5}{7} + \frac{6}{7} =$ $\frac{11}{7} = 1\frac{4}{7}$

DO YOU FEEL READY FOR THE TEST?! Where do you feel you are?	3 - MS	2 - PMS	1 - DNM
Competency 3 - Learning Target #2: I can add fractions with uncommon denominators.			

DIRECTIONS: Add the fractions. Simplify your answer. Show all your work!

4.) $\frac{1}{6} + \frac{2}{3}$ (×2) $= \frac{1}{6} + \frac{4}{6} = \frac{5}{6}$

5.) $\frac{1}{6}$ (×5) $+ \frac{1}{5}$ (×6) $= \frac{5}{30} + \frac{6}{30} = \frac{11}{30}$

6.) $\frac{5}{8}$ (×3) $+ \frac{11}{12}$ (×2) $= \frac{15}{24} + \frac{22}{24} = \frac{37}{24} = 1\frac{13}{24}$

DO YOU FEEL READY FOR THE TEST?! Where do you feel you are?	3 - MS	2 - PMS	1 - DNM
Competency 3 - Learning Target #3: I can subtract fractions with common denominators.			

DIRECTIONS: Subtract the fractions. Simplify your answer. Show all your work!

7.) $\frac{5}{6} - \frac{1}{6} =$ $\frac{4}{6} \div 2 = \frac{2}{3}$

8.) $\frac{14}{20} - \frac{12}{20} = \frac{2}{20} \div 2 = \frac{1}{10}$

9.) $\frac{50}{60} - \frac{12}{60} = \frac{38}{60} \div 2 = \frac{19}{30}$

DO YOU FEEL READY FOR THE TEST?! Where do you feel you are?	3 - MS	2 - PMS	1 - DNM
Competency 3 - Learning Target #4: I can subtract fractions with uncommon denominators.			

DIRECTIONS: Subtract the fractions. Simplify your answer. Show all your work!

10.) $\frac{4}{5} \times 2 - \frac{3}{10} =$

$\frac{8}{10} - \frac{3}{10} = \frac{5 \div 5}{10 \div 5} = \frac{1}{2}$

11.) $\frac{3}{4} \times 3 - \frac{1}{3} \times 4 =$

$\frac{9}{12} - \frac{4}{12} = \frac{5}{12}$

12.) $\frac{4}{5} \times 6 - \frac{1}{6} \times 5 =$

$\frac{24}{30} - \frac{5}{30} = \frac{19}{30}$

DO YOU FEEL READY FOR THE TEST?! Where do you feel you are?	3 - MS	2 - PMS	1 - DNM
Competency 3 - Learning Target #8: I can add mixed numbers.			

DIRECTIONS: Add the mixed numbers. Simplify your answer. Show all your work!

13.) $6\frac{1}{8} + 2\frac{5}{8} =$

$8\frac{6 \div 2}{8 \div 2} = 8\frac{3}{4}$

14.) $5\frac{1}{5} \times 2 + 2\frac{3}{10} =$

$5\frac{2}{10} + 2\frac{3}{10} =$

$7\frac{5 \div 5}{10 \div 5} = 7\frac{1}{2}$

15.) $1\frac{5}{9} \times 2 + 4\frac{1}{6} \times 3 =$

$1\frac{10}{18} + 4\frac{3}{18} =$

$5\frac{13}{18}$

DO YOU FEEL READY FOR THE TEST?! Where do you feel you are?	3 - MS	2 - PMS	1 - DNM
Competency 3 - Learning Target #9: I can subtract mixed numbers.			

DIRECTIONS: Subtract the mixed numbers. Simplify your answer. Show all your work!

16.) $7\frac{2}{5} - 2\frac{1}{5} =$

$5\frac{1}{5}$

17.) $5\frac{7}{8} \times 5 - 3\frac{2}{5} \times 8 =$

$5\frac{35}{40} - 3\frac{16}{40} =$

$2\frac{19}{40}$

18.) $7 - 5\frac{5}{6} =$

$6\frac{6}{6} - 5\frac{5}{6}$

$1\frac{1}{6}$

DO YOU FEEL READY FOR THE TEST?! Where do you feel you are?	3 - MS	2 - PMS	1 - DNM
Competency 3 - Learning Target #13: I can solve real-world and mathematical problems involving fractions using one or more of the four basic operations.			

DIRECTIONS: Find the answer to the real-world problems. Show all your work!

19.) $\frac{1}{4}$ of the boys in class are wearing jeans and $\frac{1}{8}$ of the boys are wearing khaki pants. What fraction of the boys in class are wearing neither jeans or khakis?

$\frac{1 \times 2}{4 \times 2} + \frac{1}{8}$

$\frac{2}{8} + \frac{1}{8} = \frac{3}{8}$

$\frac{8}{8} - \frac{3}{8} =$ $\frac{5}{8}$ are wearing neither jeans or khakis

20.) Colin and Kai are selling pies. Colin has sold $5\frac{2}{3}$ pies while Kai has sold $7\frac{3}{4}$ pies. How many more pies has Kai sold than Colin?

$7\frac{3}{4} \cdot \frac{3}{3} - 5\frac{2}{3} \cdot \frac{4}{4}$

$7\frac{9}{12} - 5\frac{8}{12} = 2\frac{1}{12}$

Kai has sold $2\frac{1}{12}$ more pies than Colin

21.) Ronnie and Jay drove to the Vermont to go skiing. Ronnie drove $132\frac{4}{5}$ miles. Then Jay drove the last $101\frac{3}{15}$ miles. How far did they drive to get to the ski resort?

$132\frac{4}{5} + 101\frac{3}{15}$

$132 + 101 + 1 =$ 234 miles

$\frac{4 \cdot 3}{5 \cdot 3} + \frac{3}{15} = \frac{12}{15} + \frac{3}{15} = \frac{15}{15}$

22.) It takes Jessica $9\frac{1}{2}$ minutes to run one mile. How long will it take Jessica to run 3.5 miles?

$9\frac{1}{2} \cdot 3\frac{1}{2}$

$\frac{19}{2} \cdot \frac{7}{2} = \frac{133}{4} =$ $33\frac{1}{4}$ minutes to run 3.5 miles

23.) A mitten requires $5\frac{4}{5}$ yard of yarn. How many mittens can be made from 25 yards of yarn?

$25 \div 5\frac{4}{5}$

$29 \times 4 = 116$ $\quad 125 - 116 = 9$

$\frac{25}{1} \div \frac{29}{5} \longrightarrow \frac{25}{1} \times \frac{5}{29} = \frac{125}{29} = 4\frac{9}{29}$

4 mittens can be made

24.) Cut the following recipe in half. Show all your work!

FULL RECIPE

PUPPY CHOW

9 cups Corn Chex cereal

1 cup semisweet chocolate chips

1/2 cup peanut butter

1/4 cup butter

1 tsp pure vanilla

1 1/2 cups powdered sugar

HALF RECIPE

PUPPY CHOW

4 1/2 cups Corn Chex cereal

1/2 cups semisweet chocolate chips

1/4 cups peanut butter

1/8 cups butter

1/2 tsp pure vanilla

3/4 cups powdered sugar

$9 \times \frac{1}{2} = \frac{9}{1} \cdot \frac{1}{2} = \frac{9}{2} = 4\frac{1}{2}$

$1 \times \frac{1}{2} = \frac{1}{1} \times \frac{1}{2} = \frac{1}{2}$

$1 \times \frac{1}{2} = \frac{1}{1} \times \frac{1}{2} = \frac{1}{2}$

$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

$\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$

$1\frac{1}{2} \times \frac{1}{2} = \frac{3}{2} \cdot \frac{1}{2} = \frac{3}{4}$

25.) Triple the following recipe. Show all your work!

FULL RECIPE

Caramelized Onion Jam

1/4 cups olive oil

3 large sweet onions

2 bay leaves

1 rosemary sprig

1/2 cup sugar

3/4 cup balsamic vinegar

5/8 teaspoon kosher salt

TRIPLE RECIPE

Caramelized Onion Jam

3/4 cups olive oil

9 large sweet onions

6 bay leaves

3 rosemary sprig

1 1/2 cups sugar

2 1/4 cups balsamic vinegar

1 7/8 teaspoons kosher salt

$\frac{1}{4} \cdot \frac{3}{1} = \frac{3}{4}$

$3 \cdot 3 = 9$

$2 \cdot 3 = 6$

$1 \cdot 3 = 3$

$\frac{1}{2} \cdot \frac{3}{1} = \frac{3}{2} = 1\frac{1}{2}$

$\frac{3}{4} \cdot \frac{3}{1} = \frac{9}{4} = 2\frac{1}{4}$

$\frac{5}{8} \cdot \frac{3}{1} = \frac{15}{8} = 1\frac{7}{8}$