Name:

Ratios, Rates and Proportions Tic-Tac-Toe Choice Board

Name: _____

Directions: Complete a row of 3 projects, individually. Due date: Tuesday January 10, 2017

1	2	3
Refer to a recipe website or recipe book and **select** a recipe for something you would like to make. Use ratios to change the serving size to be enough for 70 grade 6 students, 2 grade 6 teachers and 1 teacher's aide. **Show** your processes/strategies and write down your work on paper. **Include** a copy of the original recipe (can be handwritten).	**Look** online to find sports stats of your choice. **Create** three different questions you could solve that involve ratios. **Write** down your three ratio questions and solve them. **Show** your process/strategies and write down your work on paper. Include the names/teams of each athlete.	**Determine** the height of CLI's flagpole. Use your height in cm. Measure the length of the shadow of the flagpole. You can have a friend measure your shadow. How can you use ratios to find the height of the flagpole? **Explain** your thinking and **include** a diagram as one of the strategies you use to solve this problem. **Show** your process on paper. All students who choose this will go down together accompanied by a teacher
4	**5**	**6**
Create a game that involves ratios. Get teacher approval after you write your game proposal and then **make** the final product. **Include** clear directions. **Play** your game with a parent or other family member and have them write a note saying you did this.	**Create** three original word problems involving ratios and show the solutions on separate paper (using the 4-step process). **Create** two original word problems with rates and show the solutions on separate paper.	From a grocery ad or a store's webpage, **find** one item that is sold both individually and in bulk. **Determine** the unit rate for each and decide/explain which one is the better buy. **Show** the process/strategies you used to solve this problem.
7	**8**	**9**
Use the Internet to find the price of an iPhone6S Plus in at least three different currencies, e.g US, French, Japanese. **Determine** which one has the best bargain by converting each foreign currency into US dollars. **Show** your process/strategies and write down your work on paper. **Use** the website www.xe.com for currency conversions.	**Select** a relevant, appropriate image from the Internet or a magazine. **Write** at least ten different ratios (part-to-part and part-to-whole) that apply to the image you selected. **Include** the names of the items, e.g. Oilers jerseys to Flames jerseys. Must be able to print or send image to jduvall@bapsonline.org for me to print for you.	**Identify** four examples of how proportional reasoning is used in real-life. **Create** a video that clearly explains your examples to support your thinking.

Assessment Rubric for Ratios, Rates and Proportions

Criteria	Exemplary 50	Proficient 40	Approaching Proficiency 25	Beginning 10
Communication **50 points**	Records and explains reasoning and processes with precision, attention to detail and thoroughness	Records and explains reasoning and processes clearly and completely	Records and explains reasoning and processes with partial clarity, may be incomplete or inconsistent	Unable to record and explain reasoning and processes
Problem Solving **50 points**	Uses innovative and effective strategies to successfully solve the problems	Uses appropriate and successful strategies to solve the problems	Uses some appropriate strategies, with some success, to solve the problems	Uses few successful strategies; does not solve the problem successfully

Did You Hear About...

A	B	C	D	E	F
G	H	I	J	K	L ?

Use a calculator to do each exercise. Find your answer and notice the word next to it. Write this word in the box containing the letter of the exercise.

I. Solve. Round each answer to the nearest tenth.

(A) $\frac{7.5}{12} = \frac{4.2}{x}$

(B) $\frac{15}{8} = \frac{80}{x}$

(C) $\frac{6}{9.4} = \frac{x}{32}$

(D) $\frac{7.9}{x} = \frac{1}{25}$

(E) $\frac{12}{x} = \frac{3.14}{1}$

(F) $\frac{x}{58} = \frac{37.5}{100}$

II. Solve. Round each answer to the nearest whole number.

(G) Tom's red bicycle travels 50 ft for every 3 pedal turns. How many pedal turns are needed to travel a mile (5,280 ft)?

(H) For a survey, a company decided to call 7 out of every 5,000 people. How many people should be called in a town of 78,000 people?

(I) Gloria Trench checked her gas mileage and found that she had used 16.6 gal of gas to travel 372 mi. At this rate, how many gallons will she use to travel from San Francisco to Washington, D.C., a distance of 2,850 mi?

(J) A U.S. nickel contains 3.9 g of copper and 1.2 g of nickel. How many kilograms of copper must be combined with 500 kg of nickel to make nickel coins?

(K) On the stock exchange, 100 shares of Pizzazz Corp. stock are selling for $425. How many shares can be purchased for $1,000?

(L) At Paul Bunyon's logging camp, the cook scrambled 20 eggs for every 3 loggers. How many eggs did he need for the 288 loggers at the camp?

24.7 PIECES
21.8 STORIES
1,840 FAINTED
197.5 DROPPED
19.6 THAT
1,625 CAN
6.7 THE
116 BOX
20.4 WHO
127 TRASH
1,355 PILE
317 INTO
235 AND
3.8 TEN
42.7 WRITER
109 A
324 FROM
1,920 LIVED
211.5 WROTE

Converting fractions to/from decimals

Grade 6 Fraction Worksheet

Convert the fractions to decimals and the decimals to fractions.

1. 3.333 = _____
2. $5\frac{6}{15}$ = _____
3. 8.8 = _____
4. 3.667 = _____
5. 5.2 = _____
6. $5\frac{17}{50}$ = _____
7. $1\frac{24}{25}$ = _____
8. 9.333 = _____
9. 7.5 = _____
10. 2.375 = _____
11. $6\frac{85}{100}$ = _____
12. 10.5 = _____

Proportions word problems

Grade 6 Proportions Worksheet

1) Aiden found 6 pieces of milk chocolate in two boxes of assorted chocolate. How many pieces of milk chocolate would he probably find in 12 boxes of assorted chocolate?

2) A bookstore sold 16 books in 5 days. At this rate of sales, how many days will it take the store to sell 96 books?

3) Steve washed 15 cars in 3 hours. How many cars can he wash in 7 hours?

4) A photographer can take 12 pictures in 5 minutes. How long will it take him to take 132 pictures?

5) 12 rotten tomatoes are usually found in every four boxes. How many rotten tomatoes would likely be found in 14 boxes?

6) A pack of six cans of coffee cost $12. How much would 19 cans of coffee cost?

Adding unlike fractions (denominators 2-12)

Grade 6 Fraction Worksheet

Find the sum of the following fractions.

1. $\frac{4}{5} + \frac{9}{11} =$ _____

2. $\frac{5}{6} + \frac{2}{9} =$ _____

3. $\frac{5}{9} + \frac{3}{8} =$ _____

4. $\frac{2}{12} + \frac{5}{8} =$ _____

5. $\frac{6}{11} + \frac{2}{3} =$ _____

6. $\frac{1}{4} + \frac{7}{10} =$ _____

7. $\frac{5}{6} + \frac{6}{12} =$ _____

8. $\frac{2}{7} + \frac{3}{7} =$ _____

9. $\frac{1}{2} + \frac{2}{6} =$ _____

10. $\frac{1}{3} + \frac{3}{12} =$ _____