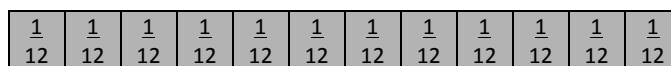
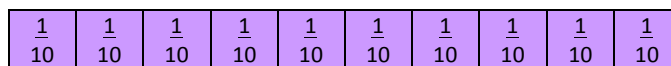
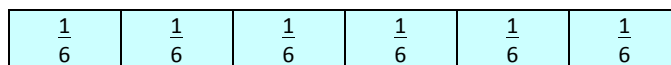
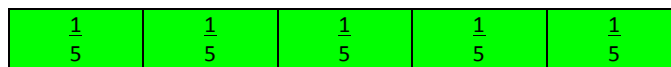
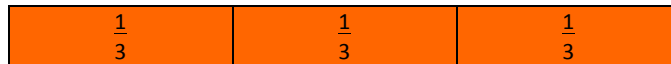


Fraction Bars



Problems about Equivalence

- A. 8 children want to share 6 pizzas so that everyone gets the same amount. How much pizza can each child have?
- B. Some girls were sharing bananas. Each girl got $\frac{1}{4}$ banana. How many bananas, and how many girls might be in the group? Show more than one solution.
- C. 24 football players wanted to share 6 pies. One football player started to cut each pie into 24 pieces and give each of the others one piece from each pie. Another football player complained that the pieces would be too small. He wanted to cut the pies into bigger pieces. How can they cut the pies into larger pieces, and still share the pies equally?
- D. 4 children are sharing 3 bottles of juice. At another table, 12 children are sharing juice. How many bottles of juice should they get, so that each child gets the same amount of juice?
- E. David used exactly 8 cups of flour to make 6 loaves of bread. How many loaves of bread can he make with 12 cups of flour?

Name: _____

Date: _____

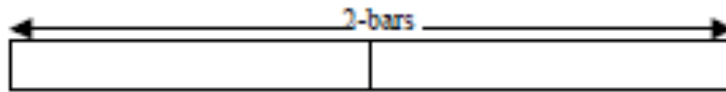
1 At a pizza party, 5 people will equally share 3 pizzas.



a. Draw lines (as best you can) to divide each pizza into 5 equal parts. What is the fraction for the total amount of pizza each person will receive? _____

b. Complete the following equation. $3 \div 5 =$ _____

2. Three people wish to share 2 banana bread cakes. Draw lines to divide each cake into 3 equal parts.



a. What is the fraction for the total amount of banana bread each person will receive? _____

b. This activity illustrates 2 divided by 3. Complete this equation: $2 \div 3 =$ _____

3. Nine people will equally share 50 pounds of potatoes.

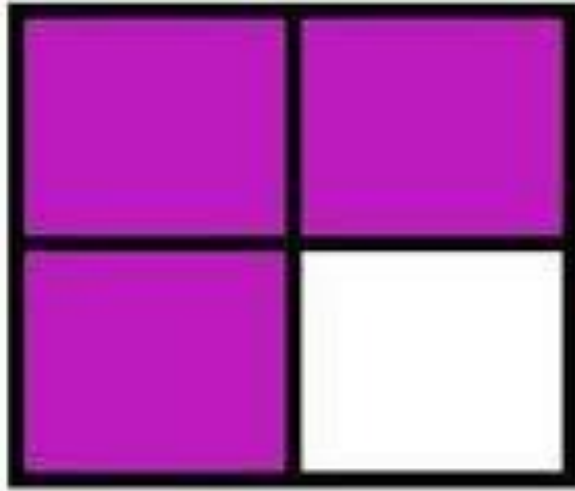
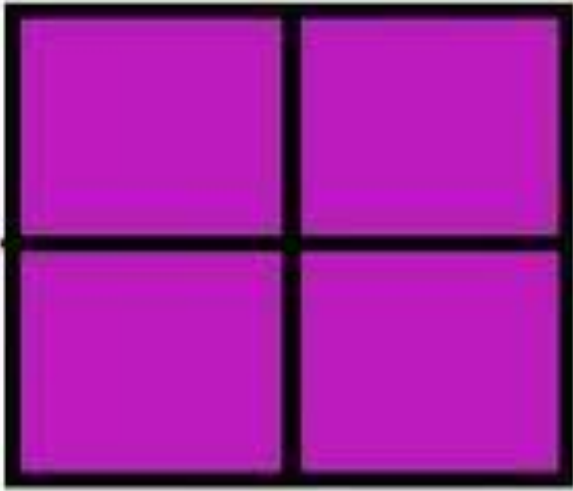
a. What is the amount of potatoes each person will receive? _____

b. The amount each person will receive is between what two whole numbers? _____ and _____

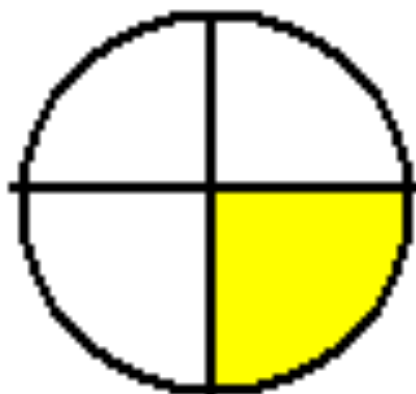
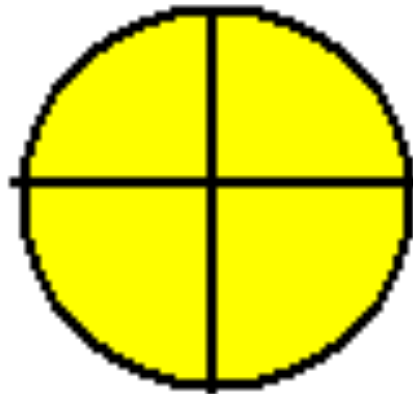
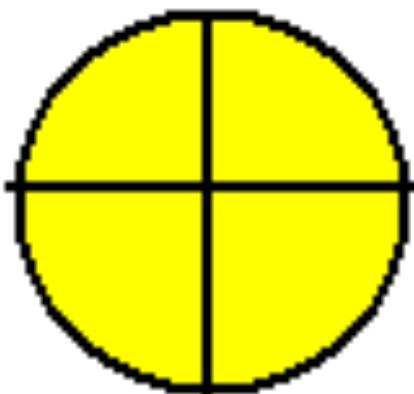
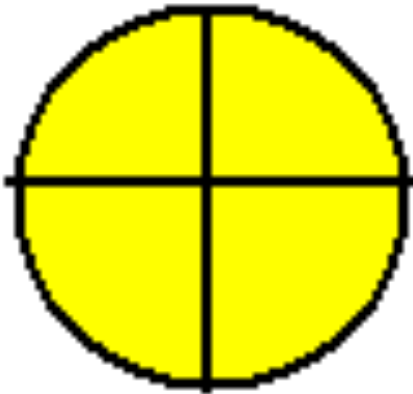
Solve each of the following problems. Write a fraction if the answer is less than 1 or write a mixed number if the answer is greater than 1.

4. Taylor plans to use 2 cups of brown sugar in making 3 loaves of whole wheat bread. If this amount of brown sugar is divided equally into 3 parts, what fraction of a cup will there be for each loaf of bread?

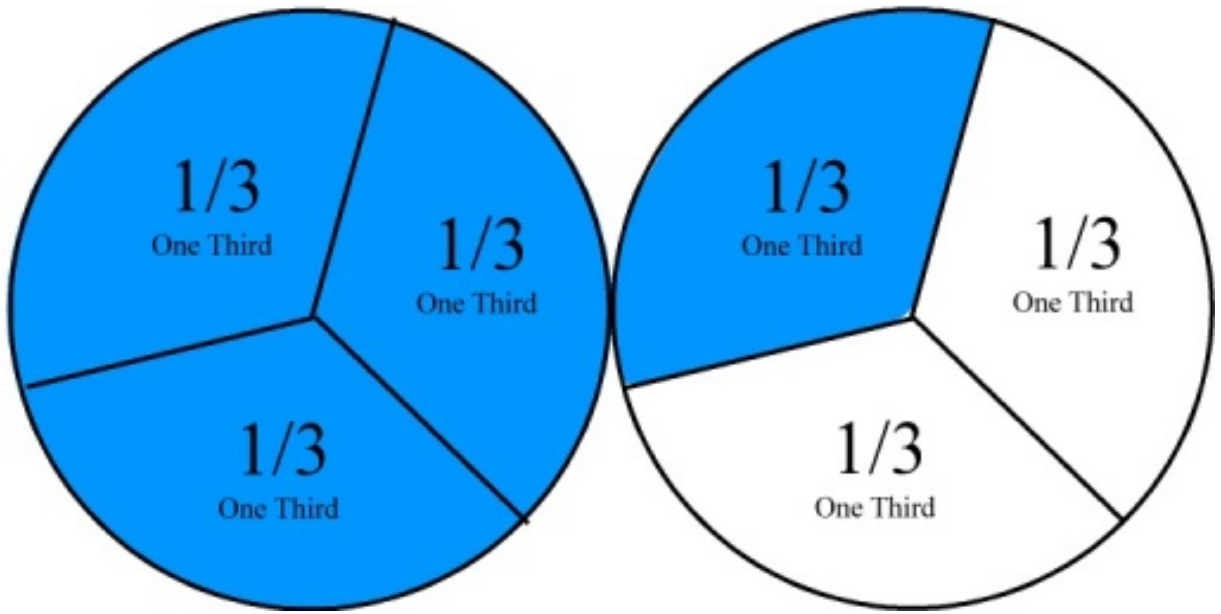
5. Ashley's mother will make 4 pineapple fruitcakes for a bake sale to raise money for the school band. If 25 ounces of crushed pineapple are divided equally into 4 parts, how much pineapple will there be for each fruitcake?



$$\frac{7}{4}$$

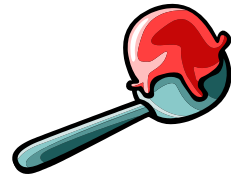






Name: _____

Ice Cream



How much ice cream was served? Choose the closest estimate.

We served 4 boxes that had 12 ice cream cones each.

4 6 40 400

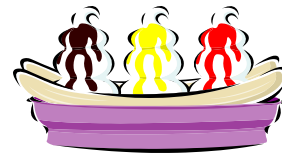
We served $\frac{1}{2}$ a box that had 12 ice cream cones.

2 6 12 24

We had $\frac{1}{2}$ a container of ice cream and $\frac{1}{2}$ of what was in the container was scooped out. How much was scooped out?

1 container $\frac{1}{2}$ of the container $\frac{1}{4}$ of the container

Name _____ Date _____



The Fifth Grade Ice Cream Party

Use fraction number lines to find out how much ice cream was served at the fifth grade party.

1. One of the tables at the party has mint chocolate chip ice cream. The servings are $\frac{1}{5}$ of cup. After five minutes, Ms. Cruz had scooped out 4 servings. How much ice cream has she served?

2. Hot fudge was a popular topping! At the end of the party, there were 3 containers left with $\frac{1}{2}$ cup each of hot fudge. How much hot fudge was left?

3. At the sundae table, Lauren was serving mini marshmallows. She used $\frac{1}{3}$ cup for each sundae. How much of the marshmallows has she used after making 2 sundaes?

Name _____ Date _____



Tiling the Multipurpose Room

Use an array model to show how the fifth grade students completed the tile murals for their new multipurpose room. As you work, use what you know about arrays with whole numbers.

1. One of the murals in the multipurpose room will fit over the sink. This mural will have a pattern of light blue and black tiles. The black tiles will cover $\frac{2}{3}$ of the design. The students will paint yellow suns on $\frac{1}{4}$ of those black tiles. What part of the whole mural will be black with yellow suns?

2. The students decided to create a tile arrangement with geometric shapes. $\frac{1}{5}$ of the tiles will be triangles. $\frac{1}{2}$ of the triangle tiles will be painted blue. What part of this mural will be blue triangles?

3. The art teacher asked the students to design a mural with their handprints. The students will cover $\frac{2}{5}$ of the mural with handprints. $\frac{1}{2}$ of those handprint tiles will be painted red. What part of this mural will be red handprints?

Name _____ Date _____



More Tiling of the Multipurpose Room

1. A large mural made up of handprint tiles will go on the left wall. This mural will measure $2\frac{1}{2}$ feet by 4 feet. How large will the mural be?

2. The door of the multipurpose room measures 6 feet by $4\frac{1}{2}$ feet. The art teacher is considering asking a group of fifth graders to paint the door with designs. How large an area will they be painting?

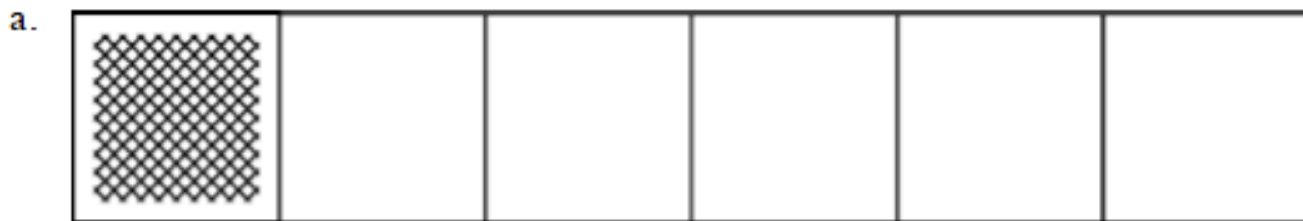
3. A small area above a window is available for a tiling design. The space measures 5 inches by $\frac{1}{2}$ inch. How large is the area above the window?

Name: _____

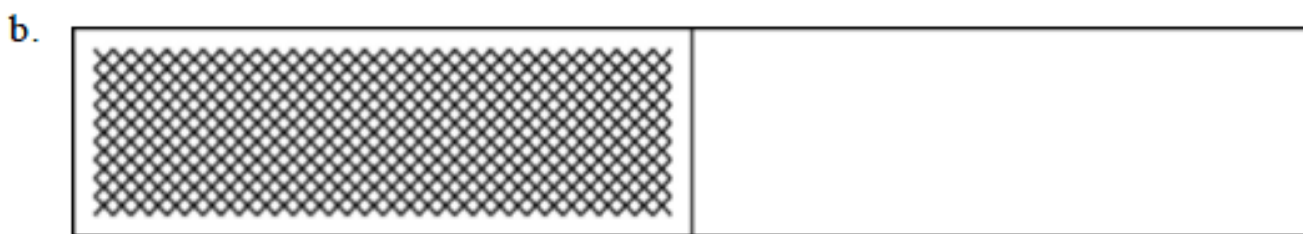
Date: _ _ _ _

Activity Sheet "Multiplying Fractions from Fraction Bars"

Draw lines on the shaded part of the bar to determine the fraction of the shaded amount. Then complete the equation.



$$\frac{1}{2} \text{ of } \frac{1}{6} = \frac{1}{2} \times \frac{1}{6} =$$



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



$$\frac{2}{3} \text{ of } \frac{1}{4} = \frac{2}{3} \times \frac{1}{4} =$$



$$\frac{3}{4} \text{ of } \frac{1}{3} = \frac{3}{4} \times \frac{1}{3} =$$

Lesson 1-5 Review

Name: _____

1. Complete each product. You may find it helpful to use the given figures.



$$\frac{1}{2} \times 3 = \underline{\hspace{2cm}}$$



$$\frac{1}{3} \times \frac{1}{2} = \underline{\hspace{2cm}}$$



$$\frac{3}{4} \times 2 = \underline{\hspace{2cm}}$$



$$\frac{1}{2} \times \frac{3}{5} = \underline{\hspace{2cm}}$$



$$\frac{1}{2} \times 8 = \underline{\hspace{2cm}}$$



$$\frac{1}{5} \times \frac{1}{3} = \underline{\hspace{2cm}}$$

2. Compute each product.

a. $\frac{1}{3} \times 25 =$

b. $\frac{1}{2} \times \frac{3}{4} =$

c. $\frac{1}{4} \times 9 =$

d. $\frac{3}{4} \times \frac{2}{3} =$

e. $\frac{2}{3} \times 17 =$

f. $\frac{1}{3} \times \frac{1}{5} =$

3. Taylor used $\frac{2}{3}$ of 12 stamps to send cards to family members. How many stamps were left?

4. One-half of a fence was damaged by a storm on Tuesday, and $\frac{1}{3}$ of the damaged part was repaired on Wednesday. What fraction of the whole fence was repaired on Wednesday?

5. The Highway Department decided that $\frac{2}{3}$ of a 16-mile stretch of road needed a new surface. What length of the road needed a new surface?

Name: _____

Date: _____

Activity Sheet "Comparing the Sizes of Products"

Ricardo, Jasmin, and Jordan each have 12 stamps. They each use the following amounts of their stamps:

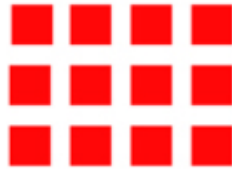
1. Circle the number of stamps for each fraction and complete the equation.

a. Ricardo's stamps



$$\frac{1}{2} \times 12 =$$

b. Jasmin's stamps



$$\frac{1}{3} \times 12 =$$

c. Jordan's stamps



$$\frac{1}{4} \times 12 =$$

2. Draw lines on the bars to show $\frac{1}{3}$ of $\frac{1}{2}$ and $\frac{1}{4}$ of $\frac{1}{2}$ and complete the equations.

On Day 1, David had $\frac{1}{2}$ pound of butter and used $\frac{1}{3}$ of it in a batch of cookies. On Day 2, he had another $\frac{1}{2}$ pound of butter and used $\frac{1}{4}$ of it in making a batch of waffles. On which day did he use the most butter?

a. Day 1



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

b. Day 2



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

3. Beatriz has 12 stamps. Sketch the stamps in the boxes for Pepe, Kennedy, and Nelli and complete the equations.

a. Beatriz's stamps



$$1 \frac{1}{2} \times 12 =$$

Pepe's stamps ($1 \frac{1}{2}$ times the number of Beatriz's stamps)

b. Beatriz's stamps



$$1 \frac{1}{3} \times 12 =$$

Kennedy's stamps ($1 \frac{1}{3}$ times the number of Beatriz's stamps)

c. Beatriz's stamps



$$1 \frac{1}{4} \times 12 =$$

Nelli's stamps ($1 \frac{1}{4}$ times the number of Beatriz's stamps)

A cook used $\frac{2}{3}$ of 2 squares of chocolate to make chocolate cheesecake. How much of these squares was used for the cheesecake?

Now the cook wanted to use $\frac{2}{3}$ of 19 chocolate squares. How much chocolate would be needed? Since it is not practical to take $\frac{2}{3}$ of each the 19 squares, what is $\frac{2}{3}$ of 18?

In science class two-fifths of an ounce of calcium sulfate is available in the lab, and $\frac{2}{3}$ of this amount is needed for an experiment. How much of the calcium sulfate is needed for the experiment?

If a table cloth has dimensions of 2 yards by $3\frac{1}{2}$ yards, what is its area in square yards?

A $1\frac{3}{4}$ foot by $1\frac{1}{2}$ foot rectangular sheet of metal is cut from a 2 foot by 2 foot sheet. What is the area of the sheet metal?

David the baker had $\frac{1}{2}$ pound of butter and used $\frac{1}{3}$ of it in a batch of cookies. How much of the butter did he use?

Multiplication of Fractions and Mixed Numbers

Name: _____

Set 1: Whole numbers times fractions and mixed numbers

- A. Marie poured 12 pitchers of water into her fish tank, and each pitcher held $2\frac{1}{3}$ quarts of water. How much water did she put into her fish tank?
- B. Proficient: One lap around the track at the King Elementary School is $\frac{1}{12}$ of a mile. If Kristen runs 18 laps, how far has she run?
- C. How many miles of tunnel can engineers drill in 6 months, if they can drill $\frac{3}{4}$ of a mile each month?

Set 2 Fractions times whole numbers

- A. On an 18 day vacation, Ruby practiced her guitar and on some days and her harmonica on all of the other days. If she practiced her guitar on $\frac{2}{3}$ of the days, on how many days did she spend practicing her harmonica?
- B. It is 40 miles from Los Angeles to Irvine. If the Garcia family drove $\frac{3}{5}$ of the distance to Irvine before getting a flat tire, how far were they from Irvine?
- C. It costs \$150 to stay at the scout camp for one week. If Elena earned $\frac{2}{3}$ of this amount, how much money did she earn for the cost of the camp?

Set 3 Mixed numbers times mixed numbers

- A. If a farmer can plow $5\frac{1}{4}$ acres of land in one day, how many acres of land can she plow in $2\frac{2}{3}$ days?
- B. What is the area of a rectangular greeting card, if its dimensions are $7\frac{1}{2}$ inches by $4\frac{2}{5}$ inches?
- C. If a spaceship orbits a planet in $1\frac{2}{5}$ days, how many days will it take to orbit the planet 5 times?

Set 4 Approximating products of mixed numbers

Create a multiplication problem involving this information.

A person weighs 240 pounds and must lose either $\frac{1}{3}$ or $\frac{1}{4}$ or $\frac{1}{5}$ of their weight.

Each large cake requires $1\frac{1}{8}$ cups of sugar and several cakes will be needed.

Approximate the products by first rounding the mixed numbers to whole numbers.

On January 15, it snowed $2\frac{7}{8}$ inches every hour for $5\frac{1}{5}$ hours. The record for that date was 19 inches. Was this a new record for that date?

An experiment calls for $8\frac{1}{8}$ ounces of sulfate. If 45 ounces of sulfate are available, is that enough for 5 experiments?

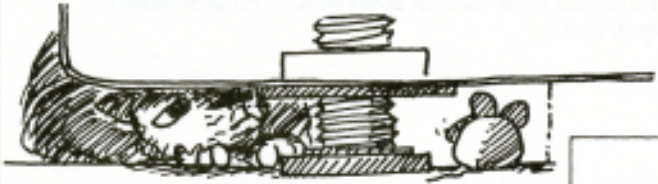
Name: _____

Date: _____

1. Shoes are made in 5 different widths. Each width differs by $\frac{1}{12}$ of an inch from the next width. Mark's shoe is 4 widths greater than his sister's. What fraction of an inch greater is the width of Mark's shoe?



2. A leveling screw on a washing machine has 12 threads to the inch. Therefore, each full turn of the screw extends the leg $\frac{1}{12}$ of an inch. How much will the leg be extended for 3 complete turns of the leveling screw?



3. The earth travels around the sun every $365\frac{1}{4}$ days. There are 24 hours in one day. How many hours is $\frac{1}{4}$ of a day?



4. The moon travels around the earth every $27\frac{1}{3}$ days. How many hours is $\frac{1}{3}$ of a day?



5. On Wednesday it rained $\frac{6}{10}$ of an inch. On Thursday it rained only $\frac{1}{3}$ as much as it rained on Wednesday. What fraction of an inch did it rain on Thursday?



6. For each turn of a steel stock in a lathe, $\frac{1}{32}$ of an inch is cut off. What thickness of steel is cut off in 8 turns?



7. The glacier on Mount Blanc in Switzerland moves $\frac{1}{25}$ of a mile each year. How far does it move in $3\frac{3}{4}$ years?



8. In 1897 48 million pounds of blue shad were caught in the ocean between Maine and Florida. The yearly catch is now $\frac{1}{6}$ of the 1897 catch. How many pounds of blue shad are now caught yearly?



Fifth Grade Performance Tasks
Multiplication of Fractions

Name: _____

1. In the statement below the word _____ means multiply.
What is $\frac{1}{5}$ of $\frac{5}{6}$?

- Multiplication allows you to find a fraction of a fraction.

2. Solve the following problem. Show your solution two ways (numerically and with a model).

James has $\frac{3}{4}$ of a pizza. He eats $\frac{1}{3}$ of what is left. What fraction of the whole pizza did James just eat?

Visual Model:

Algorithm or equation:

Reasoning in writing:

3. $\frac{7}{9} \div \frac{9}{8}$

4. $\frac{1}{6} \times 4$

5. $13 \times \frac{2}{13}$

6. $\frac{5}{12} \times 2$

7. What is $\frac{5}{7}$ of $\frac{11}{12}$?

Solve the following problem. Show your solution two ways (numerically and with a model)

8. Mr. Martinez is driving from San Diego to Santa Ana. When he leaves he has $\frac{7}{8}$ of a tank of gas. During the drive he uses $\frac{3}{5}$ of this gas. What fraction of the whole tank does Mr. Martinez use on his drive?

Visual Model:


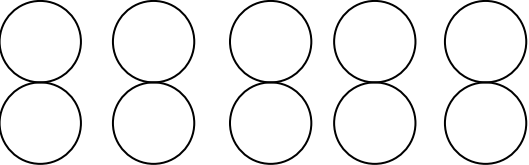

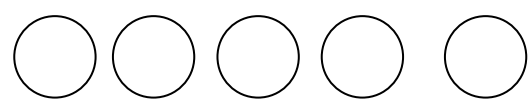
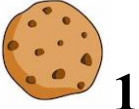
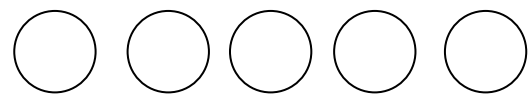

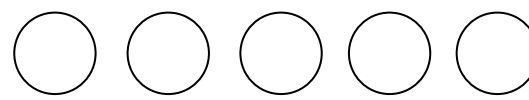
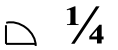
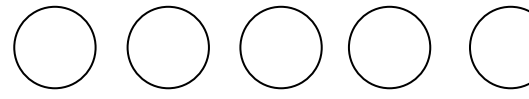

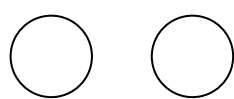


Algorithm or equation:








Reasoning in writing:








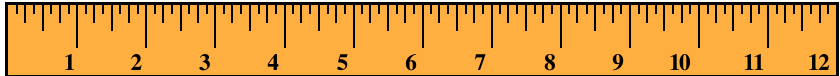






Fifth Grade Performance Task
Multiplication of Fractions

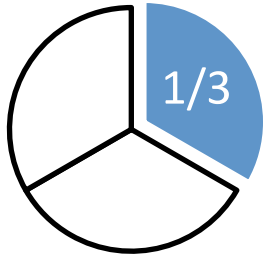
Student Name: _____

	Exceeds (6 points)	Proficient (4 pts)	Below Expectations (3 pts)
Manipulatives or Visual Model / Concepts	Understands visual concept of the fraction and applies it to the problem.	Sees the fraction in the visual, but cannot apply it to the problem.	Cannot see the visual of the fraction.
Arithmetic / Procedures	Follows mathematical procedure to solve the problem without help.	Follows mathematical procedure with some assistance.	Requires assistance on every step when working the problem.
Mathematical Reasoning/	Student explanation is coherent and logical. Shows understanding of mathematical concept and process. Uses mathematical language correctly. Student expresses insight.	Student explanation is coherent and logical. Shows understanding of mathematical concept and process. Uses some mathematical language correctly.	Requires assistance in performing the task. Cannot explain why procedures are used.

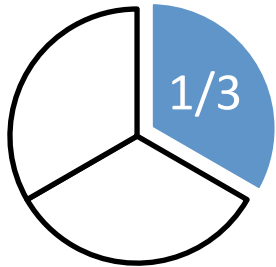
	<p>A serving is 5 cookies. How many servings can I make from 10 cookies?</p>	
	<p>A serving is 3 cookies. How many servings can I make from 5 cookies?</p>	
	<p>A serving is 1 cookie. How many servings can I make from 5 cookies?</p>	
	<p>A serving is $\frac{1}{2}$ cookie. How many servings can I make from 5 cookies?</p>	
	<p>A serving is $\frac{1}{4}$ cookie. How many servings can I make from 5 cookies?</p>	
	<p>A serving is $\frac{1}{2}$ cookie. How many servings can I make from 2 cookies?</p>	
	<p>A serving is $\frac{1}{2}$ cookie. How many servings can I make from 1 cookies?</p>	

 5	A serving is 5 brownies. How many servings can I make from 10 brownies?	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												
 3	A serving is 3 brownies. How many servings can I make from 5 brownies?	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> </tr> </table>												
 1	A serving is 1 brownie. How many servings can I make from 5 brownies?	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> </tr> </table>												
 $\frac{1}{2}$	A serving is $\frac{1}{2}$ brownie. How many servings can I make from 5 brownies?	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> </tr> </table>												
 $\frac{1}{4}$	A serving is $\frac{1}{4}$ brownie. How many servings can I make from 5 brownies?	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> </tr> </table>												
 $\frac{1}{2}$	A serving is $\frac{1}{2}$ brownie. How many servings can I make from 2 brownies?	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>												
 $\frac{1}{2}$	A serving is $\frac{1}{2}$ brownie. How many servings can I make from 1 brownies?	<table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 100%;"></td> </tr> </table>												

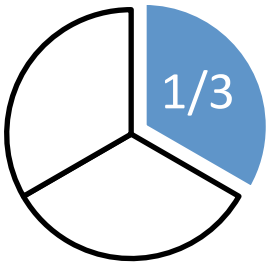
	<p>A ribbon tie is 5 inches long. How many ribbon ties can I make from 10 inches of ribbon?</p>	
	<p>A ribbon tie is 3 inches long. How many ribbon ties can I make from 5 inches of ribbon?</p>	
	<p>A ribbon tie is 1 inch long. How many ribbon ties can I make from 5 inches of ribbon?</p>	
	<p>A ribbon tie is $\frac{1}{2}$ inch long. How many ribbon ties can I make from 5 inches of ribbon?</p>	
	<p>A ribbon tie is $\frac{1}{4}$ inch long. How many ribbon ties can I make from 5 inches of ribbon?</p>	
	<p>A ribbon tie is $\frac{1}{2}$ inch long. How many ribbon ties can I make from 2 inches of ribbon?</p>	
	<p>A ribbon tie is $\frac{1}{2}$ inch long. How many ribbon ties can I make from 5 inches of ribbon?</p>	



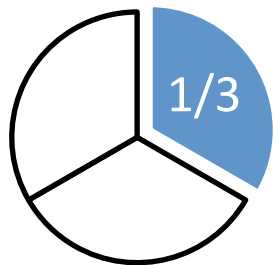
You have $\frac{1}{3}$ of a whole cake. You want to divide it equally into 3 containers.
How much cake will be in each container?





You have $\frac{1}{3}$ of a whole cake. You want to divide it equally into 4 containers.
How much cake will be in each container?

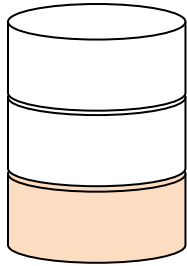
 

You have $\frac{1}{3}$ of a whole cake. You want to divide it equally into 8 containers.
How much cake will be in each container?

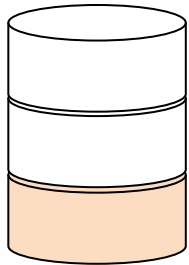
 

You have $\frac{1}{3}$ of a whole cake. You want to divide it equally into 2 containers.
How much cake will be in each container?

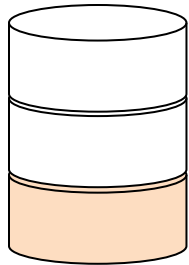
	<p>You have $\frac{1}{3}$ of a whole brownie pan. You want to divide it equally into 3 containers. How much brownie will be in each container?</p>
	<p>You have $\frac{1}{3}$ of a whole brownie pan. You want to divide it equally into 4 containers. How much brownie will be in each container?</p>
	<p>You have $\frac{1}{3}$ of a whole brownie pan. You want to divide it equally into 8 containers. How much brownie will be in each container?</p>
	<p>You have $\frac{1}{3}$ of a whole brownie pan. You want to divide it equally into 2 containers. How much brownie will be in each container?</p>



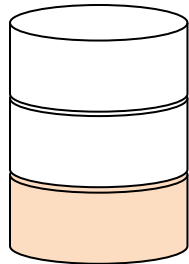
You have $\frac{1}{3}$ of a whole iced tea server. You want to divide it equally into 3 servings. How much tea will be poured into each container?



You have $\frac{1}{3}$ of a whole iced tea server. You want to divide it equally into 4 servings. How much tea will be poured into each container?



You have $\frac{1}{3}$ of a whole iced tea server. You want to divide it equally into 8 servings. How much tea will be poured into each container?



You have $\frac{1}{3}$ of a whole iced tea server. You want to divide it equally into 2 servings. How much tea will be poured into each container?

DIVIDING FRACTIONS

Name: _____

Solve the problem using a visual model and numerically. Then explain your reasoning.

Problem 1: A relay race that is $\frac{1}{3}$ mile will be run by 4 fifth graders. How far will each person run if their distances are equal?

Visual Model:

Problem 2: Ten bananas were used for making pies for a bake sale. If $2\frac{1}{2}$ bananas were used for each pie, how many pies were made?

Visual Model:

Name: _____

Problem 3: Josie is making tomato sauce for pizza. Her recipe calls for $\frac{2}{4}$ cup of tomato paste. The recipe makes enough for 6 pizzas. How much tomato paste is on each pizza?

Visual Model:

Problem 4: You need \$25 to buy a new scooter and you receive $\frac{1}{4}$ dollar each week for washing the floor. How many weeks will it take to earn enough money to buy the scooter?

Visual Model:

Math Task Rubric

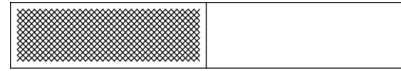
Name: _____

Problem 1: _____ Problem 2: _____ Problem 3: _____ Problem 4: _____

	Needs Improvement	Approaches Proficiency	Demonstrates Proficiency	Exemplary Distinction
Mathematics Skills	Little or no success with the mathematics skill. No workable solution is provided.	Part of the task is correct however gaps in skill and/or understanding are apparent.	Demonstrates solid execution of mathematical skill presenting a solution, which is correct and complete.	Work demonstrates rigorous mathematical skills and mastery that exceeds expectations.
Conceptual Understanding	Very little understanding of the mathematical concepts involved and/or misunderstood the task.	Some understanding of the relevant concepts is demonstrated.	Demonstrates knowledge of the mathematical concepts involved.	Work shows precise and thorough use of the mathematical concepts critical to successful completion of the task. Special insights or other exceptional qualities are included.
Mathematical Practice	Shows little or no progress toward demonstrating the mathematical practice.	Includes incomplete responses that demonstrate mathematics progress toward the mathematical practice.	Work demonstrates solid mathematical thinking and the ability to successfully use the mathematical practice.	Shows in-depth understanding of essential mathematical practice and eloquence or insight in the explanations of the practice.
Communication	Writing is confusing or absent.	There is some confusion in the writing and/or charts, diagrams. Mathematics is not clearly explained.	Addresses all processes and components of the task. Explanations are reasonable and clear to the audience.	Writes a comprehensive, compelling, and thoughtful solution. Diagrams are illuminating. Every component of the product is obvious to the audience.

SET 1

1. If $\frac{1}{2}$ of a storage locker is available and will be shared equally by 3 students, then each student will have what fractional part of the storage locker?



available amount of storage

2. Courtney has 2 cups of orange juice and a batch of orange muffins takes $\frac{1}{4}$ cup. How many batches of orange muffins can be made?

3. If $\frac{1}{3}$ gallon of paint is available to paint 2 chairs, and each chair takes the same amount of paint, what fraction of a gallon of paint will be used for each chair?



available amount of paint

4. If 4 ounces of potassium are ordered for a crystal growing experiment, and each experiment requires $\frac{1}{2}$ ounce, how many experiments can be carried out?

SET 2

1. Sounds travels $\frac{1}{5}$ of a mile in 1 second. How many seconds will it take to travel 2 miles?

2. Each batch of popcorn takes $\frac{1}{4}$ of a pound of butter. How many batches can be made from 3 pounds of butter?

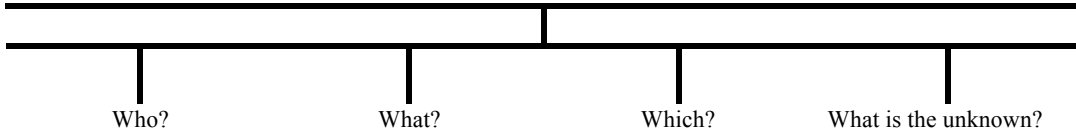
3. If a glacier moves $\frac{1}{8}$ of a mile in one year, how far will it move in 20 years?

4. Kelsey has 4 pounds of cheese and wants slices that weigh $\frac{1}{10}$ of a pound. How many slices can be obtained?

DIVIDING FRACTIONS

Name: _____

Write a story for the expression and solve your problem using a visual model and numerically. Then explain your reasoning.



Problem 1: $1/6 \div 4$

Visual Model:

Problem 2: $6 \div 1/7$

Visual Model:

DIVIDING FRACTIONS

Name: _____

Write a story for the expression and solve your problem using a visual model and numerically. Then explain your reasoning.

Problem 3: $\frac{1}{2} \div 7$

Visual Model:

Problem 4: $8 \div \frac{1}{4}$

Visual Model:

Name: _____

Writing Math Word Problems				
	Advanced 3 pts	Proficient 2 pts	Basic 1 pts	Strategic 0 pts
Content	Advanced Appropriate content is used for each word problem. Student clearly understands the mathematical concepts.	Proficient Appropriate content is used for each word problem. Student shows some understanding of the mathematical concepts.	Basic Appropriate content may be used. Student shows little understanding of the mathematical concepts.	Strategic Appropriate content is not observed. Student does not demonstrate an understanding of the mathematical concepts.
Organization	Advanced The word problem is written in clear and coherent language. The word problem includes a correct answer key that is neat and legible.	Proficient The word problem is written in clear and coherent language. The word problem includes an answer key.	Basic The word problem is not written in clear and coherent language. The word problem may or may not include an answer key.	Strategic The word problem is not written in clear and coherent language, or may not be observed. The word problem does not include an answer key.
Mechanics	Advanced Mathematical language, capitalization and punctuation are present with no mistakes.	Proficient Mathematical language, capitalization and punctuation are present with no more than two mistakes.	Basic Mathematical language, capitalization and punctuation may be used, but more than two mistakes.	Strategic Mathematical language, capitalization and punctuation are not observed.
Visual Model	Advanced Visual model clearly represents the topic of the problem.	Proficient Visual model somewhat represents the topic of the problem.	Basic Visual model attempts to represent the problem.	Strategic Visual model is not observed.

MATH MENU ACTIVITIES

Name: _____

Menu Activities after Lesson 4

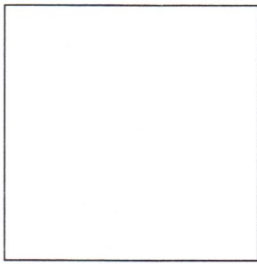
- Choice 1: Working in Circles**
- Choice 2: Measurement Matters**
- Choice 3: Mixed Matters**
- Choice 4: Multiplying with Rectangles**

Menu Activities after Lesson 8

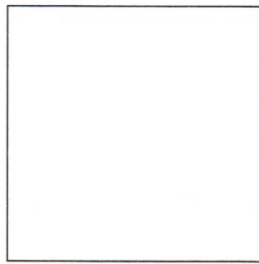
- Choice 5: The Multiplying Game**
- Choice 6: Fraction Fix Up**
- Choice 7: Fruitful Fractions**
- Choice 8: Mixed Fractions**
- _____
- _____

Multiplying with Rectangles

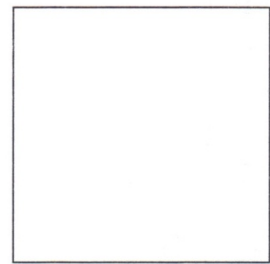
① $\frac{1}{2} \times \frac{1}{3} =$



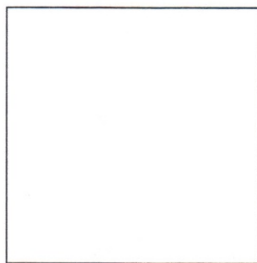
② $\frac{1}{2} \times \frac{2}{3} =$



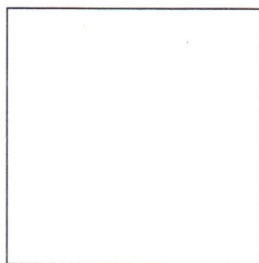
③ $\frac{1}{2} \times \frac{5}{8} =$



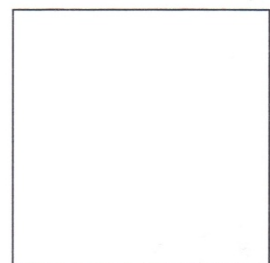
④ $\frac{1}{3} \times \frac{1}{3} =$



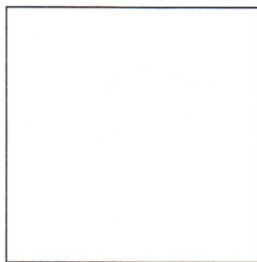
⑤ $\frac{1}{3} \times \frac{2}{3} =$



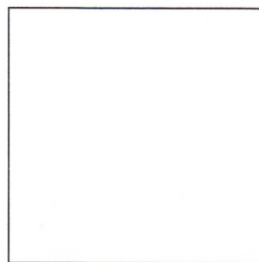
⑥ $\frac{1}{3} \times \frac{5}{8} =$



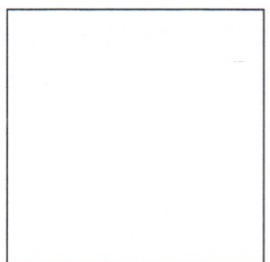
⑦ $\frac{3}{4} \times \frac{1}{3} =$



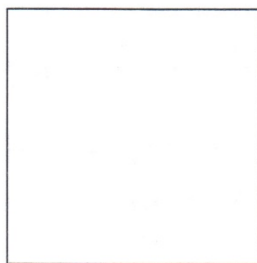
⑧ $\frac{3}{4} \times \frac{2}{3} =$



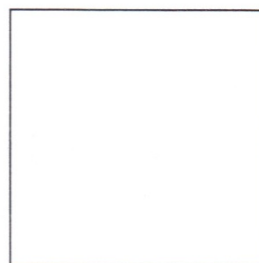
⑨ $\frac{3}{4} \times \frac{5}{8} =$



⑩ $\frac{2}{3} \times \frac{1}{3} =$



⑪ $\frac{2}{3} \times \frac{2}{3} =$



⑫ $\frac{2}{3} \times \frac{5}{8} =$

