

CONNECTION® to the TEKS Developmental Series™

Math
5

Reporting Categories 1 and 2
teacher
v2



KAMICO®
Instructional Media, Inc.

CONNECTION[®] to the TEKS

Math **5**

Reporting Categories 1 and 2
teacher

Developmental Series[™]

XXVI/i/MMXXVI

Version 2



KAMICO[®]

Instructional Media, Inc.

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KAMICO[®] Instructional Media, Inc.

P.O. Box 1143

Salado, Texas 76571

Telephone: 254.947.7283 Fax: 254.947.7284

E-mail: kmichael@kamico.com Website: <https://www.kamico.com>

KAMICO® Instructional Media, Inc.
CONNECTION® to the TEKS
Introduction

KAMICO® Instructional Media's program is validated by scientifically based research. **STAAR CONNECTION™ Diagnostic Series™** and **CONNECTION® to the TEKS Developmental Series™** can be used in tandem to ensure mastery of Texas reporting categories and TEKS. The *Diagnostic Series™* consists of a bank of assessments. Each assessment covers a mixture of reporting categories and TEKS. This research-based format provides continual reinforcement for and ensures retention of mastered concepts. To take full advantage of this series, administer an assessment to students. After they have completed the assessment, use it as an instructional tool. Go over each item with the class, discussing all correct and incorrect answers. Then, use the assessment as a diagnostic tool to determine a standard for which students need remediation. Find that standard in the *Developmental Series™*.

Each book in the **CONNECTION® to the TEKS Developmental Series™** consists of instructional activities and assessments over isolated TEKS to allow for the remediation and development of specific TEKS. For every TEKS, there is at least one individual or group activity. The activities provide a fun, challenging, yet nonthreatening, way to develop mastery of the TEKS. In addition to these activities, each *Developmental Series™* book contains assessments on isolated TEKS to be used to identify mastery or the need for further skill development or reinforcement. Continue to alternate between the **STAAR CONNECTION™ Diagnostic Series™** and the **CONNECTION® to the TEKS Developmental Series™**.

KAMICO's **Game Gallery®** consists of over 300 board games in English and in Spanish. These games create a game-based learning environment to facilitate additional reinforcement of TEKS.

KAMICO® Instructional Media, Inc., supports efforts to ensure adequate yearly progress and eliminate surprises in high-stakes test results.

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P.O. Box 1143
Salado, Texas 76571
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E-mail: kmichael@kamico.com Website: <https://www.kamico.com>

Texas Essential Knowledge and Skills Grade 5 Math

Mathematical Process Standards

These student expectations will not be listed under a separate reporting category. Instead, they will be incorporated into test questions across reporting categories since the application of mathematical process standards is part of each knowledge statement.

- (5.1) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to
- (A) apply mathematics to problems arising in everyday life, society, and the workplace;
 - (B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;
 - (C) select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
 - (D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;
 - (E) create and use representations to organize, record, and communicate mathematical ideas;
 - (F) analyze mathematical relationships to connect and communicate mathematical ideas; and
 - (G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Reporting Category 1:

Numerical Representations and Relationships

The student will demonstrate an understanding of how to represent and manipulate numbers and expressions.

		TE	SE
(5.2)	Number and operations. The student applies mathematical process standards to represent, compare, and order positive rational numbers and understand relationships as related to place value. The student is expected to		
(A)	represent the value of the digit in decimals through the thousandths using expanded notation and numerals;		
	Supporting Standard Place Value Playoff	11	
	Assessment	16	5
(B)	compare and order two decimals to thousandths and represent comparisons using the symbols $>$, $<$, or $=$; and		
	Readiness Standard Comparison War	19	
	Assessment	27	8
(C)	round decimals to tenths or hundredths.		
	Supporting Standard Round and Round	33	
	Assessment	43	14
(5.4)	Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to		
(A)	identify prime and composite numbers;		
	Supporting Standard Prime Pathway	47	
	Assessment	59	18
(E)	describe the meaning of parentheses and brackets in a numeric expression; and		
	Supporting Standard Ascending Bracket Mountain . . .	64	
	Assessment	67	23
(F)	simplify numerical expressions that do not involve exponents, including up to two levels of grouping.		
	Readiness Standard Simplification Is in the Cards . . .	70	
	Assessment	75	26

Reporting Category 2:

Computations and Algebraic Relationships

The student will demonstrate an understanding of how to perform operations and represent algebraic relationships.

		TE	SE
(5.3)	Number and operations. The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. The student is expected to		
	(A) estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division; Supporting Standard		
	Estimation Stations	80	
	Assessment	97	31
	(B) multiply with fluency a three-digit number by a two-digit number using the standard algorithm;		
	Supporting Standard Above and Below, Drop Down .	102	
	Assessment	117	36
	(C) solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm; Supporting Standard		
	Division of Labor	119	
	Assessment	134	38
	(D) represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models; Supporting Standard		
	Multiplication Match	137	
	Assessment	151	41
	(E) solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers;		
	Readiness Standard Decimal Reversi	157	
	Assessment	173	47

(F)	represent quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using objects and pictorial models, including area models; Supporting Standard	Decimal Division Solitaire	176		
		Assessment	201	50	
(G)	solve for quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using strategies and algorithms, including the standard algorithm; Readiness Standard	Divide and Conquer Denali! . . .	207		
		Assessment	221	56	
(H)	represent and solve addition and subtraction of fractions with unequal denominators referring to the same whole using objects and pictorial models and properties of operations; Supporting Standard	Fraction Relay	224		
		Assessment	241	59	
(I)	represent and solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models; Supporting Standard	Fraction Joust	245		
		Assessment	277	64	
(J)	represent division of a unit fraction by a whole number and the division of a whole number by a unit fraction such as $1/3 \div 7$ and $7 \div 1/3$ using objects and pictorial models, including area models; Supporting Standard	Fraction Posters	283		
		Assessment	293	70	
(K)	add and subtract positive rational numbers fluently; and Readiness Standard	The Great Add-Venture 2: Subtraction Siege	299		
		Assessment	312	76	
(L)	divide whole numbers by unit fractions and unit fractions by whole numbers. Readiness Standard	Recipe Sack Race	315		
		Assessment	334	79	

(5.4)	Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to	TE	SE
(B)	represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity; Readiness Standard To the Letter 337 Assessment 348		82
(C)	generate a numerical pattern when given a rule in the form $y = ax$ or $y = x + a$ and graph; and Readiness Standard Pattern Pyramid 351 Assessment 359		85
(D)	recognize the difference between additive and multiplicative numerical patterns given in a table or graph. Supporting Standard Thinking Inside the Box 364 Assessment 379		90
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Reporting Category 2: Computations and Algebraic Relationships
TEKS 5.3L

Divide whole numbers by unit fractions and unit fractions by whole numbers.

ACTIVITY
Recipe Sack Race



Materials

For each pair of students:

Recipe Sack Race game board

tokens

Recipe Sack Race recipe problem cards (cut and folded)

Procedure

Students sit beside each other and place the *Recipe Sack Race* game board between them. Each player places his or her token on the space marked *Start* on the track nearest him or her. Players also choose which of them will be the dealer (the person who picks up and turns over the *Recipe Sack Race* recipe problem card). The cards are shuffled and left face up in a stack on the start side of the game board. The cover card is placed on top of the stack and only removed to pull the top card for every turn.

Each card has a real recipe on it, as well as a question about one of the ingredients. When the teacher says *Go*, the dealer picks up the cover card, remove the top recipe problem card from the stack, and puts the cover card back where it was. Each player works the problem on the card. When both players have arrived at an answer, the dealer turns over the card to verify the answer. A player may move his or her token one space forward if (s)he has answered the question correctly. A player must leave his or her token where it is if (s)he answers the problem incorrectly.

The first player to land on the space marked *Finish Line* is the winner. If all the cards have been used, the player closest to the finish line is the winner. A tie is possible whether all cards are used or not.

Students may keep recipes to take home if they wish, and extra copies of the recipes can be made if necessary.

Enrichment

Most measuring utensils, for both dry ingredients and liquids, only measure in unit fractions such as $\frac{1}{5}$, $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{1}{2}$. Liquid measuring cups may have lines for greater fractions such as $\frac{2}{3}$ and $\frac{3}{4}$. Ask students to explain how they can find fractions of various measures used in common recipes, such as $\frac{1}{6}$ of a liquid cup or $\frac{3}{8}$ of a teaspoon. Students should explain that they would fill a liquid measuring cup halfway between the bottom and the $\frac{1}{3}$ -line to find $\frac{1}{6}$ of a liquid cup. Students should explain that they would use their knowledge of fraction addition to find $\frac{1}{4}$ of a teaspoon and then half of that to add up to $\frac{3}{8}$ of a teaspoon.

Recipe Sack Race Cover Card

Recipe Sack Race



Cover Card

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Recipe Sack Race



Recipe Sack Race
Recipe Problem Cards

Pizza Quesadilla

1 tablespoon extra-virgin olive oil

2 medium flour tortillas

$\frac{1}{3}$ cup pizza sauce

$\frac{1}{3}$ cup pepperoni

1 cup shredded mozzarella

$\frac{1}{2}$ cup finely grated Parmesan



Heat olive oil in a medium ovenproof skillet over medium heat. Add one flour tortilla to the skillet and spread about half of the pizza sauce over the tortilla. Sprinkle with mozzarella and Parmesan. Add pepperoni, and top with the second tortilla. Cook until the cheese is melted and the tortilla is golden. Meanwhile, preheat broiler. Carefully turn the quesadilla over and top with remaining pizza sauce, mozzarella, Parmesan, and pepperoni. Place the skillet under the broiler and cook until the cheese is melted. Serve warm.

If the quesadilla is divided evenly among 4 people, about how much sauce, in cups, will each person get?

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

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

$$\frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$$

$$\frac{1}{3} \div 4 = \frac{1}{12}$$

Each person will get about $\frac{1}{12}$ cup of sauce.

Sausage Balls

3 cups biscuit mix

1 pound mild sausage

10 ounces cheddar cheese, grated

$\frac{1}{8}$ cup water



Preheat oven to 400°F. Mix all ingredients in a large bowl. Shape mixture into balls about the size of a walnut (these can also be frozen and cooked later). Bake on greased cookie sheet for 15 – 20 minutes.

How much water, in cups, is called for per cup of biscuit mix?

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$$\frac{1}{8} \div 3 =$$

$$\frac{1}{8} \div \frac{3}{1} =$$

$$\frac{1}{8} \times \frac{1}{3} = \frac{1}{24}$$

$$\frac{1}{8} \div 3 = \frac{1}{24}$$

$\frac{1}{24}$ cup of water is called for each cup of biscuit mix.

Dill Potato Salad

4 pounds red potatoes

5 hard-boiled eggs

2 teaspoons dill

$1\frac{1}{2}$ cups mayonnaise

1 teaspoon celery seed

$\frac{1}{2}$ teaspoon salt

$\frac{1}{4}$ teaspoon pepper

paprika



Place potatoes in a large pot. Cover with water and bring to a boil. Reduce heat. Cover and cook for 20 – 25 minutes or until tender. Drain and cool. Cut potatoes into $\frac{3}{4}$ -inch cubes. Chop eggs. Combine potatoes, eggs, and dill. In a small bowl, combine mayonnaise, celery seed, salt, and pepper. Pour over potato mixture and stir gently to coat. Sprinkle with paprika and refrigerate at least 2 hours.

How many teaspoons of dill are there for every teaspoon of pepper?

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

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

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

$$\frac{8}{1} = 8$$

There are 8 teaspoons of dill for every teaspoon of pepper.

Pumpkin Spice Butter

1 cup (2 sticks) unsalted butter

$\frac{2}{3}$ cup powdered sugar

1 teaspoon ground cinnamon

$\frac{1}{4}$ teaspoon ground nutmeg

$\frac{1}{4}$ teaspoon ground ginger

$\frac{1}{4}$ teaspoon ground allspice

$\frac{1}{2}$ teaspoon salt (omit the salt if using salted butter)



Mix all ingredients until smooth. Refrigerate.

How many sticks of butter are there for every teaspoon of salt?

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

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

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

There are 4 sticks of butter for every teaspoon of salt.

Lemon Blueberry Cobbler

2 cups blueberries	$\frac{2}{3}$ cup all-purpose flour
1 teaspoon freshly grated lemon zest	1 teaspoon baking powder
$\frac{1}{3}$ cup sugar	$\frac{1}{8}$ teaspoon ground cinnamon
1 tablespoon fresh lemon juice	pinch of salt
1 teaspoon cornstarch	$\frac{1}{2}$ cup heavy cream



Preheat oven to 400°F. In a bowl, combine the blueberries, lemon zest, sugar, lemon juice, and cornstarch. Mix well. Pour into pie plate. In a separate bowl, sift together the flour, baking powder, cinnamon, and salt. Add cream and stir just until mixture forms a dough. Divide dough into fifths and place the lumps of dough in a circle on top of the blueberry mixture. Bake until biscuits are golden and cooked through, about 25 minutes.

There are 11 cups of sugar in a canister. How many of these cobblers can be made with this amount of sugar?

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$$11 \div \frac{1}{3} =$$

$$\frac{11}{1} \div \frac{1}{3} =$$

$$\frac{11}{1} \times \frac{3}{1} = \frac{33}{1}$$

$$\frac{33}{1} = 33$$

33 cobblers can be made with 11 cups of sugar.

Lavender Lemonade

$\frac{1}{8}$ cup dried food-grade lavender

5 – 7 cups water, divided

1 cup sugar (or sugar substitute equivalent to 1 cup sugar)

12 – 14 large ice cubes

1 cup lemon juice



Boil 2 cups of water. Put the lavender into a large heat-proof bowl. Pour the boiling water onto it, and let the lavender brew for 10 minutes. Strain out and discard the lavender. Stir the sugar into the lavender/water mixture until dissolved. Add ice cubes and stir until mostly melted, and then transfer to a 2-quart pitcher. Add the lemon juice and enough cold water to fill the pitcher. Stir until combined.

A caterer ordered a package containing 2 cups of lavender. How many pitchers of this lemonade can (s)he make?

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$$2 \div \frac{1}{8} =$$

$$\frac{2}{1} \div \frac{1}{8} =$$

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

$$\frac{16}{1} = 16$$

The caterer can make 16 pitchers of lemonade.

Mini Apple Pies

1 package (14.1 ounces) refrigerated pie crust (2 crusts)

$\frac{1}{2}$ cup applesauce

3 teaspoons cinnamon sugar, divided

2 tablespoons butter (no substitutes)

1 tablespoon milk, divided



Preheat oven to 350°F. Cut the butter into 12 pieces. On a lightly floured surface, unroll the pie crusts. Use a $3\frac{1}{2}$ -inch round cookie cutter to cut six circles from each crust. In a separate bowl, mix the applesauce with $1\frac{1}{2}$ teaspoons of the cinnamon sugar. Put 2 teaspoons of the applesauce onto one half of each circle of crust, and put one piece of the butter on each. Moisten the edges of each circle with some milk. Fold each crust over the applesauce and press the edges with a fork to seal. Transfer to an ungreased baking sheet. Brush the tops with the rest of the milk. Sprinkle with the rest of the cinnamon sugar. Bake for 12 – 15 minutes or until crusts are golden brown. Let cool on wire racks for 5 – 10 minutes.

If this recipe makes 12 pies, about how many cups of applesauce will be in each pie?

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

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

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

$$\frac{1}{24}$$

There will be about $\frac{1}{24}$ cup of applesauce in each pie.

Seven-Week Bran Muffins

3 cups 100% bran cereal

1 cup water

$\frac{1}{2}$ cup vegetable oil

$2\frac{1}{2}$ cups all-purpose flour

1 teaspoon salt

$2\frac{1}{2}$ teaspoons baking soda

2 eggs, beaten

$1\frac{1}{2}$ cups sugar

2 cups buttermilk



Preheat oven to 400°F. Bring water to a boil. Combine 1 cup of cereal with boiling water. Set aside to cool. Mix in vegetable oil and set aside. Sift the flour, salt, and baking soda together. In a large bowl, beat the eggs and sugar. Stir in the sifted flour mixture, buttermilk, and 2 cups of the cereal. Add the oil/cereal mixture, and mix well. Bake in greased muffin cups or liners for 15 – 20 minutes.

How many cups of vegetable oil are in this recipe for every cup of cereal?

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

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

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

$$\frac{1}{6}$$

There is $\frac{1}{6}$ cup of vegetable oil to each cup of cereal.

Penne Al Telefono

1 pound penne pasta	$\frac{1}{4}$ teaspoon pepper
$\frac{1}{4}$ cup extra-virgin olive oil	$\frac{1}{4}$ teaspoon basil
2 cups tomato sauce	$\frac{1}{2}$ teaspoon oregano
$\frac{3}{8}$ teaspoon garlic powder	$\frac{1}{4}$ pound mozzarella cheese
Pinch of salt	



Cook penne in a large pot of boiling water for 8 – 10 minutes or until *al dente*. Drain pasta, but do not rinse.

While the pasta is cooking, heat the olive oil over medium heat in a large skillet. Add tomato sauce, garlic powder, salt, pepper, basil, and oregano, and simmer for about 5 minutes. While the sauce is cooking, cut the mozzarella into small cubes. Add the pasta and cheese to the sauce and mix well.

If this recipe is divided among 5 people, and the ingredients are evenly mixed, about how much mozzarella cheese will each person get, in pounds?

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$$\frac{1}{4} \div 5 =$$

$$\frac{1}{4} \div \frac{5}{1} =$$

$$\frac{1}{4} \times \frac{1}{5} =$$

$$\frac{1}{20}$$

If the ingredients are evenly mixed, each person will get $\frac{1}{20}$ of a pound of mozzarella cheese.

Chili Macaroni Burgers

1 7.25-ounce box macaroni and cheese

$\frac{1}{2}$ teaspoon chili powder

6 hamburger patties

6 hamburger buns

1 cup cheddar cheese, grated



Preheat oven to 350°F. Prepare the macaroni and cheese according to the directions on the box. Stir in the chili powder. Let the macaroni cool to room temperature. Cook the hamburger patties until they are well done. Place the bottom half of the hamburger buns on a baking sheet, and top each one with a cooked patty, $\frac{1}{6}$ of the macaroni and cheese, and $\frac{1}{6}$ of the cheddar cheese. Bake for 5 minutes. Add the top half of the buns and serve right away.

In this recipe, if the chili powder is distributed evenly, how many teaspoons of chili powder are there in each hamburger?

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$$\frac{1}{2} \div 6 =$$

$$\frac{1}{2} \div \frac{6}{1} =$$

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

$$\frac{1}{12}$$

If the chili powder is distributed evenly, there is $\frac{1}{12}$ teaspoon of chili powder in each hamburger.

Chili Dog Nachos

- | | |
|--|---------------------------------|
| 1 tablespoon vegetable oil | 2 tablespoons chili powder |
| 1 pound ground beef | 2 teaspoons ground cumin |
| salt and pepper to taste | 1 8-ounce can tomato sauce |
| 2 hot dogs, sliced into $\frac{1}{2}$ -inch pieces | 1 bag tortilla chips |
| 1 small onion, chopped | 8 ounces cheddar cheese, grated |
| 2 teaspoons Worcestershire sauce | |



Heat a saute pan over medium heat. Add vegetable oil. Add beef. Crumble and cook beef for 2 minutes. Season with salt and pepper. Add chopped hot dogs. Continue cooking for 3 minutes. Add onion, Worcestershire sauce, chili powder, and cumin. Cook for 3 – 5 minutes. Add tomato sauce. Simmer for 5 minutes. Arrange chips on a plate. Top chips with chili-dog mixture. Top with cheese and serve.

Allergy warning: In case of fish allergy, the Worcestershire sauce may be left out.

If one hot dog is 6 inches long, how many $\frac{1}{2}$ -inch-long pieces can be cut from the hot dog?

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$$\frac{6}{1} \div \frac{1}{2} =$$

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

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

12 $\frac{1}{2}$ -inch-long pieces can be cut from the hot dog.

Mint Chocolate Chip Ice Cream

1 can (14 ounces) sweetened condensed milk

2 tablespoons water

$\frac{1}{4}$ teaspoon peppermint extract

3 drops green food coloring, if desired

2 cups whipping cream, whipped

6 ounces miniature chocolate chips

In a large bowl, mix the condensed milk, water, peppermint extract, and food coloring. Fold in the whipped cream and chocolate chips. Pour into a freezer-safe container and freeze for 6 hours.

William has a bottle that holds 6 teaspoons of peppermint extract. The peppermint extract in the bottle is enough to make how many batches of ice cream?



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$$6 \div 4 =$$

$$\frac{6}{1} \div \frac{1}{4} =$$

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

$$\frac{24}{1} = 24$$

There is enough peppermint extract for 24 batches of ice cream.

Melt-Aways

$\frac{1}{2}$ pound butter (no substitutes)
 $\frac{3}{4}$ cup cornstarch
 $\frac{1}{3}$ cup powdered sugar
1 cup flour

Frosting

4 ounces cream cheese, softened
 $1\frac{1}{2}$ cups powdered sugar
1 teaspoon vanilla



Allow butter to soften. Preheat oven to 350°F. Blend together butter, cornstarch, powdered sugar, and flour until creamy. Refrigerate for 2 hours. Take teaspoonfuls of dough and roll into balls. Place on a cookie sheet and flatten slightly. Bake for 10 – 12 minutes. Cookies will not rise or spread out. Cool on wire racks to room temperature. For the frosting, beat together until smooth cream cheese, powdered sugar, and vanilla. Pour frosting into pastry bag. Tip and frost the cookies. Or, pour the frosting into a plastic zipper bag. Seal the zipper, snip off a tiny piece of one bottom corner, and squeeze the frosting onto the cookies.

Ignoring the frosting, how many batches of these cookies can be made with 4 cups of powdered sugar?

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

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

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

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

12 batches of cookies without frosting can be made with
4 cups powdered sugar.

Kiwi Ice

2 cups apple juice

1 tablespoon lemon juice

4 kiwi fruits, peeled and sliced

$\frac{1}{2}$ teaspoon orange zest



In a blender or food processor, combine apple juice, lemon juice, and kiwi fruit. Mix well. Add orange zest. Pulse 2 or 3 times. Pour into an 8-inch square pan, cover, and freeze for about 2 hours, or until partially frozen. Pour into a mixing bowl and beat on medium speed for $1\frac{1}{2}$ minutes. Pour back into the 8-inch square pan and freeze for 2 – 3 hours. Allow the ice to stand at room temperature for 10 minutes before serving.

One orange typically yields 6 teaspoons of zest. How many batches of this recipe could be made with 2 oranges?

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2 oranges = 12 tsp of zest

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

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

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

$$\frac{24}{1} = 24$$

24 batches of Kiwi Ice can be made with 2 oranges.

Green Apple Salsa

$1\frac{1}{2}$ teaspoons olive oil

2 teaspoons lime juice

$\frac{1}{3}$ cup sliced green onions

$\frac{1}{8}$ teaspoon salt

$\frac{1}{2}$ teaspoon lime zest

1 Granny Smith apple, cored and thinly sliced

1 jalapeño pepper, seeds removed and minced



Blend all ingredients in a food processor until mixed to desired consistency.
Serve with tortilla chips.

If 12 people have an equal portion of the entire batch of salsa, and the ingredients are evenly distributed throughout the batch, how many teaspoons of salt will be in each person's portion?

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$$\frac{1}{8} \div 12 =$$

$$\frac{1}{8} \div \frac{12}{1} =$$

$$\frac{1}{8} \times \frac{1}{12} = \frac{1}{96}$$

There will be $\frac{1}{96}$ teaspoon of salt in each person's portion.

Multi-Grain Pancakes

$\frac{1}{4}$ cup all-purpose flour

$\frac{1}{4}$ cup whole-wheat flour

$\frac{1}{4}$ cup quick-cooking oats

1 tablespoon brown sugar

1 teaspoon baking powder

$\frac{1}{4}$ teaspoon salt

1 egg white

$\frac{1}{2}$ cup plus 1 tablespoon milk

2 teaspoons vegetable oil



In a medium-sized bowl, combine the dry ingredients. In another bowl, combine the egg white, milk, and oil. Stir the mixture into the dry ingredients until moistened. Pour batter by $\frac{1}{4}$ -cupful onto a greased hot griddle. Turn pancake when bubbles start forming on top. Cook until both sides are golden brown.

This recipe makes 4 pancakes. If the ingredients are evenly mixed, how many cups of oats are in each pancake?

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$$\frac{1}{4} \div 4 =$$

$$\frac{1}{4} \div \frac{4}{1} =$$

$$\frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$$

There is $\frac{1}{16}$ cup of oats in each pancake.

Divide whole numbers by unit fractions and unit fractions by whole numbers.

- 1 A small elementary school is holding a field day. The students will rotate in groups from activity to activity. 10 students, which represent $\frac{1}{20}$ of the entire school, will be participating in each activity. Based on this information, how many students are in the elementary school?

Record your answer in the space below.

- 2 Kaylee made 2 dozen oatmeal cookies and 1 chocolate cake. Kaylee's family ate $\frac{2}{3}$ of the cake. Kaylee took the remaining $\frac{1}{3}$ of the cake to her office. The first 3 people at the office who saw the cake split it evenly among themselves and quickly ate their portions. Create an equation that can be used to determine how much of the original whole cake each of the 3 people at the office ate. Write the correct answer in each box. Not all answers will be used.

2	$\frac{3}{3}$	3	$\frac{1}{9}$	$\frac{1}{3}$	$\frac{3}{6}$	$\frac{2}{3}$
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Each of the 3 people at the office ate of the original whole cake.

- 3 Mrs. Hawkins purchases one large sheet of cardboard for a science activity. She cuts the cardboard into $\frac{1}{3}$ sections. Then she cuts each section into 12 equal-sized pieces. How many pieces of cardboard does Mrs. Hawkins have now?
- Ⓐ 36 pieces
- Ⓑ 4 pieces
- Ⓒ $\frac{1}{36}$ piece
- Ⓓ $\frac{1}{4}$ piece
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- 4 Misty buys a $\frac{1}{2}$ gallon jug of lemonade and a 2-liter bottle of ginger ale. Misty pours $\frac{1}{4}$ of the jug of lemonade into three glasses, one for herself and one for each of her 2 sisters. How much of the jug of lemonade does Misty pour into each of the glasses?
- Ⓐ $\frac{1}{4} \div 3 = \frac{1}{12}$ of the jug of lemonade
- Ⓑ $\frac{1}{3} \div 3 = \frac{1}{6}$ of the jug of lemonade
- Ⓒ $64 \div \frac{1}{3} = \frac{64}{3}$ of the jug of lemonade
- Ⓓ $\frac{1}{4} \div \frac{1}{3} = \frac{3}{4}$ of the jug of lemonade

- 5 Mrs. Martinez adds $\frac{1}{2}$ pound of flour to a batch of homemade modeling dough. She mixes the dough and then puts an equal amount into each of 16 zipper bags. What fraction of a pound of flour will be in each bag?

Record your answer in the space below. Be sure to show how you find your answer.

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- 6 Before there was indoor plumbing, many children took baths in small tubs that were filled with water from an outdoor water pump. A small tub could hold 12 gallons of water. If a young boy made several trips to a water pump with a bucket and carried $\frac{1}{3}$ of a gallon of water each time, how many trips did it take for him to fill the tub?

- (A) $\frac{1}{36}$ trip
- (B) 36 trips
- (C) $\frac{1}{4}$ trip
- (D) 4 trips