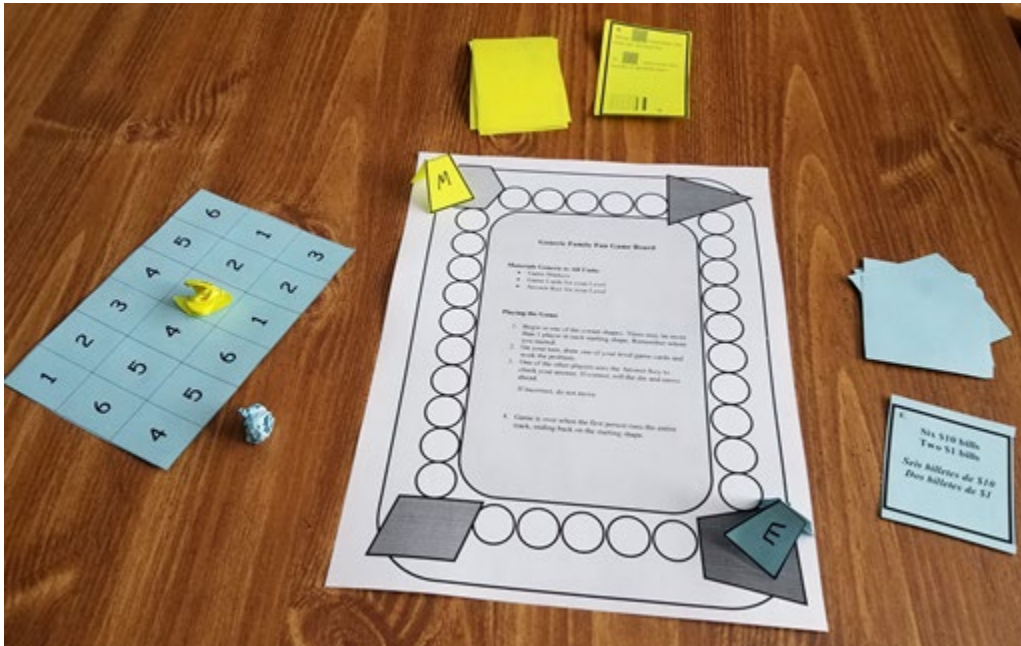


## Family Fun Tips for Printing, Preparing Materials and How to Play



### PRINT AND PREP MATERIALS

#### PRINTING

**Color-coding the Grade Bands.** It is suggested to use a distinct color to print the packets for each grade level. This makes it easier for students in different Grade Bands to work together.

**Use the colors available. The traditional colors suggested are**

- PINK for Kindergarten (Dog PACK)
- BLUE for Grade Band 1-2 (Crayon PACK)
- GREEN for Grade Band 3-4 (Whale PACK)
- YELLOW for Grade Band 5-6 (Owl PACK)

#### STUDENT SUPPLIES

**FYI: Each Grade Band "PACK" includes the Student's supplies for all 5 Units.**

- Each Unit starts with a paper DIY page to make their own game player and alternative to dice
- Gameboards (in Units 1, 3, and 5)
- Game Cards for Units 1-5
- Graphic organizers
- Paper manipulatives

**Additional Student Supplies:**

- Grade Bands K-4 – Envelope to keep and reuse paper manipulatives
- Grade Band 5-6 – Calculator

**Print per Student:**

Print (1) Grade Band Pack per student for the whole summer.

- **Dog Pack** for students who completed Kindergarten
- **Crayon Pack** for students who completed Grades 1-2

- **Whale Pack** for students who completed Grades 3-4
- **Owl Pack** for students who completed Grades 5-6

## EDUCATOR SUPPLIES

### Print per Educator:

1. This document: Print, Prep & Family Fun Overview
2. Answer Keys: Units 1 – 5 for all Grade Bands (White paper)
3. Sample Solutions (**New 2022**)
  - For Gr 1-2 (Blue Paper)
  - For 3-4 (Green Paper)
  - For 5-6 (Yellow Paper)
4. Spare set of Game Boards & DIY part
5. 1 set of each Student PACK

### Other Helpful Supplies:

- Calculator (Grade Band 5-6)
- Dice!

Envelopes for Educators to store a set of the paper manipulatives for their Grade Band

- DOG PACK (Grade Band K)
  - Real Counters
  - Play money: dimes, pennies
- CRAYON PACK (Grade Band 1-2)
  - Base 10 blocks
  - Play money: \$1 bills and \$10 dollar bills
- WHALE PACK (Grade Band 3-4)
  - Graph paper
  - Base 10 Blocks (Hundreds Flat, Tens rods, Ones units)
- OWL PACK (Grade Band 5-6)

## SUMMER MATH DESIGN: Who Should Use Which Grade Band?

The Summer Math Grade Bands are **designed for the students who just completed the grade**, in order to practice and maintain their skills through the summer.

**The “Dog Pack”** is for students **who just completed Kindergarten** in May or June, to review and maintain those skills over the summer.

- Rising “Kinders,” who will enter Kindergarten in the fall, can participate in the activities with extra support.

- If using the assessments, the **“Rising Kinders” should not be assessed.**

**The “Crayon Pack”** is for students who **just completed 1<sup>st</sup> or 2<sup>nd</sup> Grade** in May or June.

- Rising 1<sup>st</sup> Graders just completed Kindergarten, so should be using the “Dog Pack” to make sure they are solid in those skills. They may struggle with the end-of-2<sup>nd</sup> Grade skill practice in the “Crayon Pack” Family Fun Games.

- **The “Whale Pack”** is for students who **just completed 3<sup>rd</sup> or 4<sup>th</sup> Grade.**
    - Rising 3<sup>rd</sup> Graders, who just completed 2<sup>nd</sup> Grade, would not be prepared for the multiplication and division practice in the “Whale Pack” Family Fun Games.
  - **The “Owl Pack”** is for students **who just completed 5<sup>th</sup> or 6<sup>th</sup> Grade.**
    - Rising 5<sup>th</sup> Graders, who just completed 4<sup>th</sup> Grade, would not be prepared for the decimals and percent practice in the “Owl Pack” Family Fun Games.
- NOTE:** Make individual decisions for students with IEPs, based on the level of work used during the school year just completed.

Each student game pack has 5 sets of game cards that can be used throughout the summer. Unit 1 is an introduction, with a few skills, so students can learn how the game works. More skills are added through Units 2 to 5.

## Playing the Game

- Playing directions are written on the gameboards.
- The odd part of the gameboard is the directions tell players pick a different shape/corner to start on. Then need to remember to stop on the right one! (It can get crowded if players start from the same corner.)
- All ages of students play the game together.
  - On their turn, students use the game cards from their own packet to solve math problems at their own level. Once the student solves for the correct answer, they can roll the dice or toss the ball of paper on the number chart and move.
  - **Note:** Preschoolers play without a set of cards. They can practice counting and taking turns to move around the gameboard.
- **If the student is struggling or gives a wrong answer,** ask the student questions about how they started, what they did next, and guide them to the correct answer. **The new graphic organizers, paper manipulatives, and Sample Solutions are there to support these students!**
  - *Once students solve their problem, they still get to move.*
- Educators can have students cut the cards apart or leave them uncut. When the cards are **not** cut apart,
  - Students can use the margins to solve problems, and
  - Students tend to read ahead, working through multiple problems instead of just the cards they select.

## FYI: The Math Skills Targeted in the Summer Math Curriculum

To review and reinforce the following math skills:

### Grade Completed: Kindergarten

**Major Works for Kindergarten:** Addition and Subtraction concepts including **NY-K.OA.1:** Represent addition and subtraction using objects, fingers, pennies, drawings, sounds, acting out situations, verbal explanations, expressions, equations, or other strategies. **Note:** Drawings need not show details but should show the mathematics in the problem.

**Math Fluency for Kindergarten: NY-K.OA.5:** Add and Subtract within 5

**NY-K.CC.5a and 5b:** Count to answer “how many” questions. As many as 20 things arranged in a line, circle or array. Up to 10 objects when scattered.

**NY-K.CC.6:** Compare two objects to see which one has “more of”/“less of” the measurable attribute. For example, longer/shorter; taller/shorter

**NY-K.MD.4:** Explore coins (pennies, nickels, dimes, and quarters) and begin identifying pennies and dimes.

**NYS Note:** Beginning to identify coins is new for Kindergarten under the NYS Next Generation Mathematics Learning Standards.

Finding “fair shares” and “half” continues to be a Grade 1 skill in NY. Many end-of-year Kindergarten students are ready to **explore** these concepts with food.

### Grade Completed: 1<sup>st</sup> Grade

**Major Work for First Grade: NY-1.OA.1 –** Use addition and subtraction within 20 to solve one-step word problems involving situations of adding to, taking from, putting together, taking apart, and/or comparing, with unknowns in all positions. **Note:** Problems should be *represented* using objects, drawings, *and* equations with a symbol for the unknown number. Problems should be *solved* using objects *or* drawings, and equations.

**NY Common Addition and Subtraction Situations (slightly modified CGI CHART) Expectations for Grade 1:** To use the whole chart, but not expect mastery of the most difficult until Grade 2.

**Math Fluency for First Grade: NY-1.OA.6b-** Fluently add and subtract within 10. (mixture of just knowing some answers and use of strategies, such as patterns.)

**NY-1.OA.8 –** Determine the unknown whole number in an addition or subtraction equation with the unknown in all positions. e.g., Determine the unknown number that makes the equation true in each of the equations:  $8 + ? = 11$   $\_\_ - 3 = 5$   $6 + 6 = \square$

**NY-1.OA.2-** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20.

**NY-1.OA.3 –** Apply properties of operations as strategies to add and subtract. **Note:**

Students need not use formal terms for these properties. e.g., To add  $2 + 6 + 4$ , the second two numbers can be added to make a ten, so  $2 + 6 + 4 = 2 + 10 = 12$ .

**NY-1.G.3** – Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths, and quarters*, and use the phrases *half of, fourth of, and quarter of*. Describe the whole as *two of, or four of* the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

**NYS Note:** The First Grade materials were modified, replacing “compatible numbers” with “making 10.”

**NYS Note:** The First Grade materials were modified, replacing the term, “compatible numbers,” from Math Matters with “making 10” from NYS Next Generation Learning Standards.

**Grade Completed: 2<sup>nd</sup> Grade**

**Major Work for Second Grade: NY-2.OA.1** – Use addition and subtraction within 100 to solve one-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. Mastery of all word problem types on the “Common Addition and Subtraction Situations” Chart by end of Grade 2.

**Math Fluency for Second Grade: NY-2.OA.2a**- Fluently add and subtract within 20 using mental strategies. Strategies could include... using the relationship between

addition and subtraction e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$

**Math Fluency for Second Grade: NY-2.OA.2b** - Know from memory all sums within 20 of two one-digit numbers. (*By the end of Grade 2*)

**Math Fluency for Second Grade: NY-2.NBT–** Fluently add and subtract within 100 **using strategies** based on place value, properties of operations, and or the relationship between addition and subtraction.

**NY-2.G.3** – Partition circles and rectangles into two, three, or four equal shares. Describe the shares using the words *halves, thirds, half of, a third of*, etc. Describe the whole as *two halves, three thirds, four fourths*. Recognize that equal shares of identical wholes need not have the same shape.

**NYS Note:** The fractions from the Math Matters materials were modified to use circles and rectangles in two, three and four equal shares.

**Grade Completed: 3rd Grade**

**Math Fluency for Third Grade:**

- **NY-3.OA.7a** - Fluently solve single-digit multiplication and related divisions, using strategies such as the relationship between multiplication and division or properties of operations. e.g., Knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ .

- **NY-3.OA.7b** - Know from memory all products of two one-digit number.

**Major Work for Third Grade:** Multiplication and division of whole numbers and fractions – concepts, skills and problem solving.

**NY-3.OA.4** – Determine the unknown whole number in a multiplication or division equation relating three whole numbers. e.g., determine the unknown number that makes the equation true in each of the equations  $8 \times ? = 48$ ,  $5 = \_ \div 3$ ,  $6 \times 6 = ?$

**NY-3.OA.1** – Interpret products of whole numbers. e.g., Interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each. Describe a context in which a total number of objects can be expressed as  $5 \times 7$ .

**NY-3.OA.3** – Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities. E.g., using drawings and equations with a symbol for the unknown number to represent the problem.

**NYS Note:** This Next Generation standard uses a multiplication word problem chart in the CGI format, for “Equal Groups” and for “Arrays & Area.”

**NY-3.NF.3** - Explain equivalence of fractions and compare fractions by reasoning about their size.

**NY-3.NF.3b** – Recognize and generate equivalent fractions. e.g.,  $1/2 = 2/4$ ;  $4/6 = 2/3$

Explain why the fractions are equivalent.

**NY-3.NF.3d** – Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons rely on the two fractions referring to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ ,  $<$ , and justify the conclusions, e.g., by using a visual fraction model.

#### **Grade Completed: 4th Grade**

**NY-4.NF.6-** Use decimal notation for fractions with denominators 10 or 100.

e.g.,

- Rewrite 0.62 as  $62/100$  or  $62/100$  as 0.62.
- Describe a length as 0.62 meters.
- Locate 0.62 on a number line.

**NYS Note:** This is a Power Standard for Grade 4, but scheduled to be taught after the NYS Math Assessment, so is relatively new to students.

**Major Work for Grade 4:** Multiplication and division of whole numbers and fractions – concepts, skills and problem solving.

**NY-4.NBT.5** – Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

**NY-4. NF.7** – Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ ,  $<$ , and justify the conclusions, e.g., by using a visual model.

**NYS Note:** This is a Power Standard for Grade 4, but scheduled after the NYS Math Assessment, so is relatively new to students in the summer.

**NY-4. NF.2** – Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as  $\frac{1}{2}$ . Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual fraction model.

**NY-4.MD.4** – Make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ). Solve problems involving addition and subtraction of fractions by using information present in line plots.

**Grade Completed: 5th Grade**

Major Fluency for Fifth Grade: 5.NBT.5- Fluently multiply multi-digit whole numbers using the standard algorithm.

Major Work for Fifth Grade: Multiplication and division of whole numbers and fractions – concepts, skills, and problem solving.

**NY-5.NF.1** – Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. e.g.,

- $\frac{1}{3} + \frac{2}{9} = \frac{3}{9} + \frac{2}{9} = \frac{5}{9}$
- $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$

**NYS Power Standard: NY-5.NBT.7** – Using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between operations:

- add and subtract decimals to hundredths; and
- multiply and divide decimals to hundredths.

Relate the strategy to a written method and explain the reasoning used.

Note: Students should be taught to use concrete models and drawings; as well as strategies based on place value, properties of operations, *and* the relationship between operations. When solving any problem, students can choose to use a concrete model *or* a drawing. Their strategy must be based on place value, properties of operations, or the relationship between operations.

Note: Division problems are limited to those that allow for the use of concrete models or drawings, strategies based on properties of operations, and/or the relationship between operations (e.g.,  $0.25 \div 0.05$ ). Problems should not be so complex as to require the use of an algorithm (e.g.,  $0.37 \div 0.05$ ).

**Grade Completed: 6<sup>th</sup> Grade**

**Major Fluency for Sixth Grade: NY-6.NS.3** – Fluently add, subtract, multiply, and divide

multi-digit decimals using the standard algorithm for each operation.

**Major Work for Sixth Grade:** Ratios and proportional relationships, early work with expressions and equations.

**NYS Power Standard: NY-6.RP.3d** – Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

Note: Conversion of units occur within a given measurement system, not across different measurement systems.

**NYS Power Standard: NY-6.RP.3c** – Find a percent of a quantity as a rate per 100. Solve problems that involve finding the whole given a part and the percent and finding a part of a whole given the percent. e.g., 30% of a quantity means 30/100 times the quantity.

**Procedural Fluency: NY-6.NS.3** – Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

**NY-6.RP.1** – Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. e.g., “The ratio of wings to beaks in the birdhouse at the zoo was 2:1 because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”

**NYS Power Standard: NY-6.RP.3b** – Solve unit rate problems. e.g., If it took 7 hours to

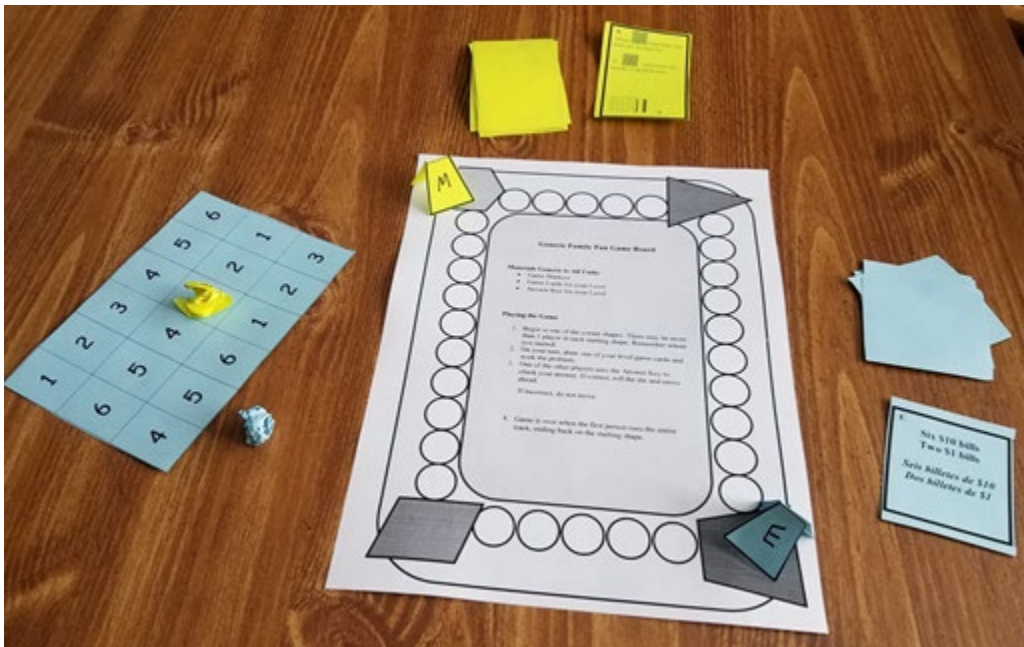
mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed? What is the unit rate?

Note: Problems may include unit pricing and constant speed.



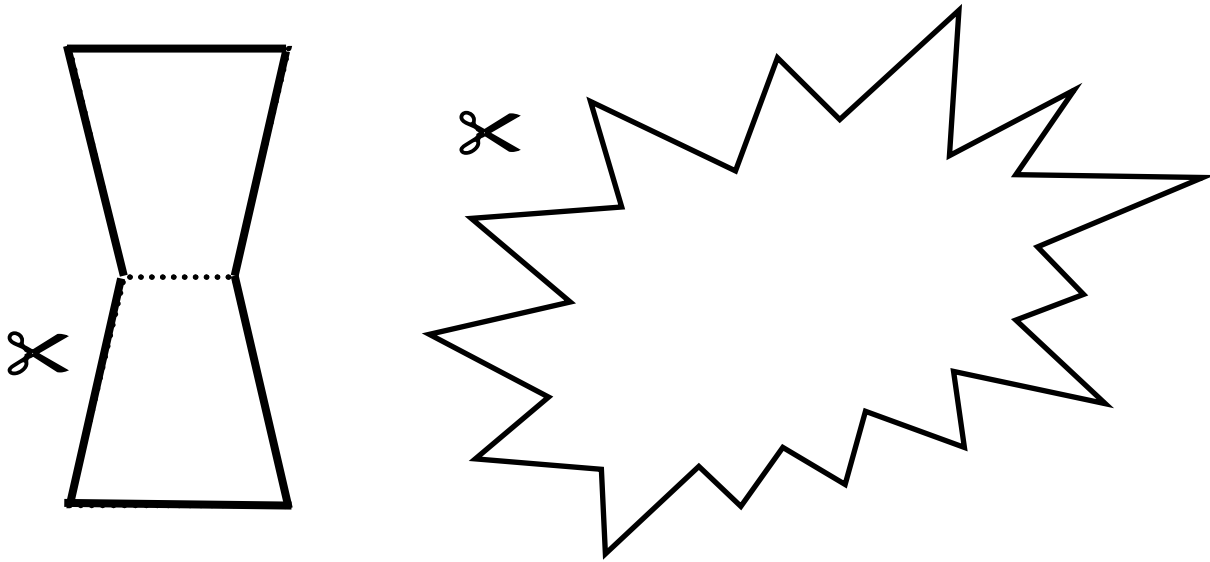
# Family Fun Game

## *Juego de diversión familiar*



*Dog Pack*

# Family Fun Game - Unit 1/ Unidad 1



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



## Generic Family Fun Game Board

### Materials Generic to All Units:

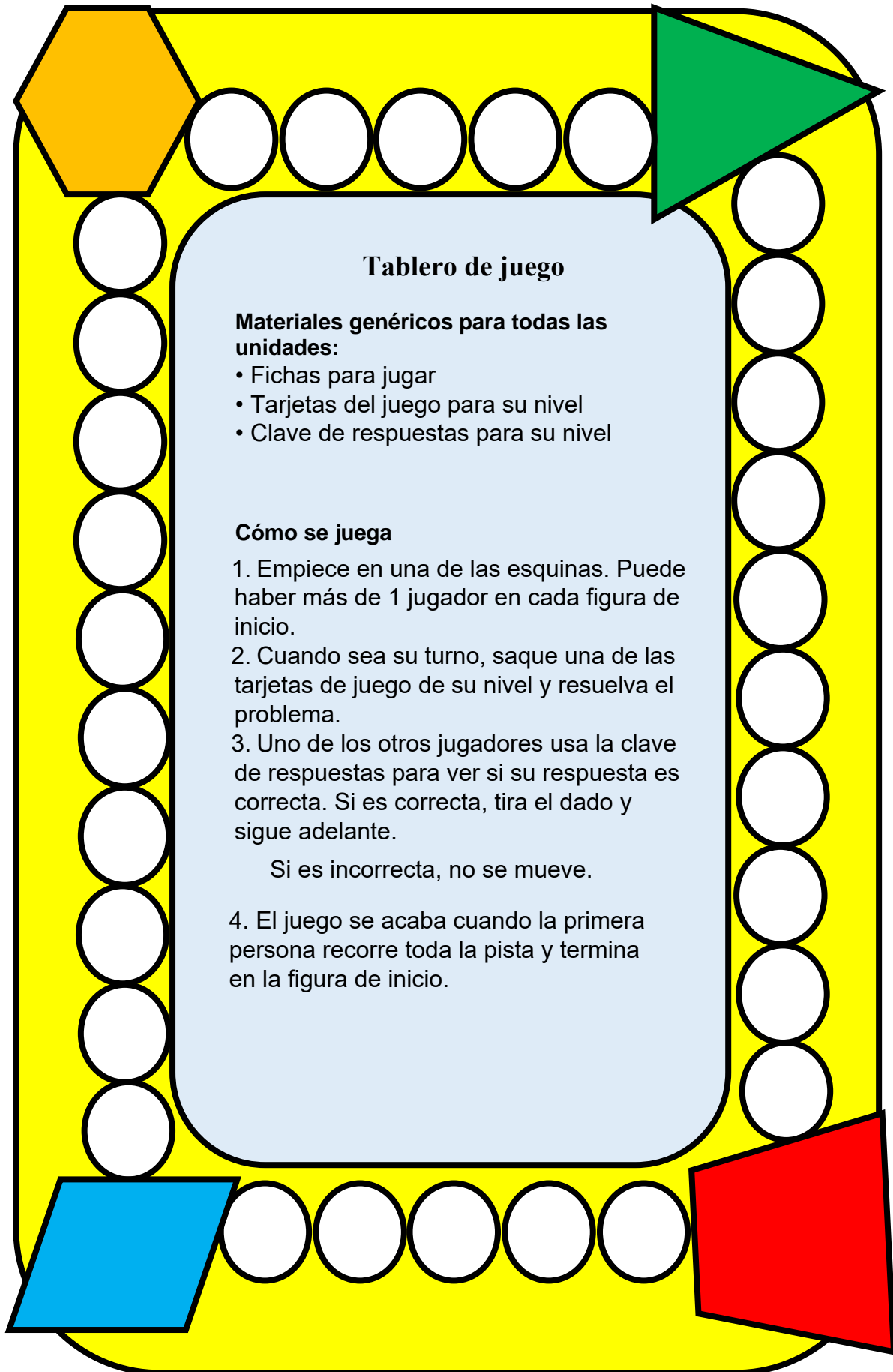
- Game Markers
- Game Cards for your Level
- Answer Key for your Level

### Playing the Game

1. Begin in one of the corner shapes. There may be more than 1 player in each starting shape. Remember where you started.
2. On your turn, draw one of your level game cards and work the problem.
3. One of the other players uses the Answer Key to check your answer. If correct, roll the die and move ahead.

If incorrect, do not move.

4. Game is over when the first person runs the entire track, ending back on the starting shape.



## Tablero de juego

### Materiales genéricos para todas las unidades:

- Fichas para jugar
- Tarjetas del juego para su nivel
- Clave de respuestas para su nivel

### Cómo se juega

1. Empiece en una de las esquinas. Puede haber más de 1 jugador en cada figura de inicio.
2. Cuando sea su turno, saque una de las tarjetas de juego de su nivel y resuelva el problema.
3. Uno de los otros jugadores usa la clave de respuestas para ver si su respuesta es correcta. Si es correcta, tira el dado y sigue adelante.  
Si es incorrecta, no se mueve.
4. El juego se acaba cuando la primera persona recorre toda la pista y termina en la figura de inicio.



A.

$$2\text{¢} + 3\text{¢} =$$

B.

$$2\text{¢} + 4\text{¢} =$$

C.

$$2\text{¢} + 5\text{¢} =$$

D.

$$2\text{¢} + 6\text{¢} =$$

E.

$$2\text{¢} + 7\text{¢} =$$

F.

$$2\text{¢} + 8\text{¢} =$$

G.

$$3\text{¢} + 3\text{¢} =$$

H.

$$3\text{¢} + 4\text{¢} =$$

I.

$$3\text{¢} + 5\text{¢} =$$



**J.**  
 Jose had 5 cents.  
 He found 5 more cents.  
 How much money did he  
 have then?

*José tenía 5 centavos.  
 Encontró 5 centavos más.  
 ¿Cuánto dinero tiene  
 ahora?*

**K.**  
 Maria had 8 cents.  
 She found 5 more cents.  
 How much money did she  
 have then?

*María tenía 8 centavos.  
 Encontró 5 centavos más.  
 ¿Cuánto dinero tiene  
 ahora?*

**L.**  
 Martin had 10 cents.  
 He found 5 more cents.  
 How much money did he  
 have then?

*Martin tenía 10 centavos.  
 Encontró 5 centavos más.  
 ¿Cuánto dinero tiene  
 ahora?*

**M.**  
 Maria had 3 cents.  
 She found 8 more cents.  
 How much money did she  
 have then?

*María tenía 3 centavos.  
 Encontró 8 centavos más.  
 ¿Cuánto dinero tiene  
 ahora?*

**N.**  
 Jose had 7 cents.  
 He found 5 cents more.  
 How much money did he  
 have then?

*José tenía 7 centavos.  
 Encontró 5 centavos más.  
 ¿Cuánto dinero tiene  
 ahora?*

**O.**  
 Maria had 4 cents.  
 She found 5 more cents.  
 How much money did she  
 have then?

*María tenía 4 centavos.  
 Encontró 5 centavos más.  
 ¿Cuánto dinero tiene  
 ahora?*

**P.**  
 1 dime  
 add  
 4 pennies

*1 moneda de diez  
 centavos  
 suma  
 4 centavos*

**Q.**  
 1 dime  
 add  
 3 pennies

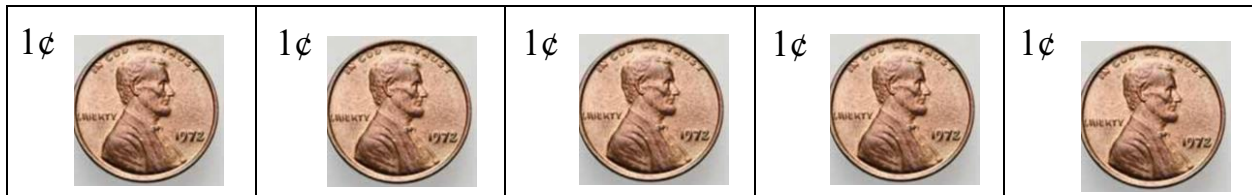
*1 moneda de diez  
 centavos  
 suma  
 3 centavos*

**R.**  
 1 dime  
 add  
 6 pennies

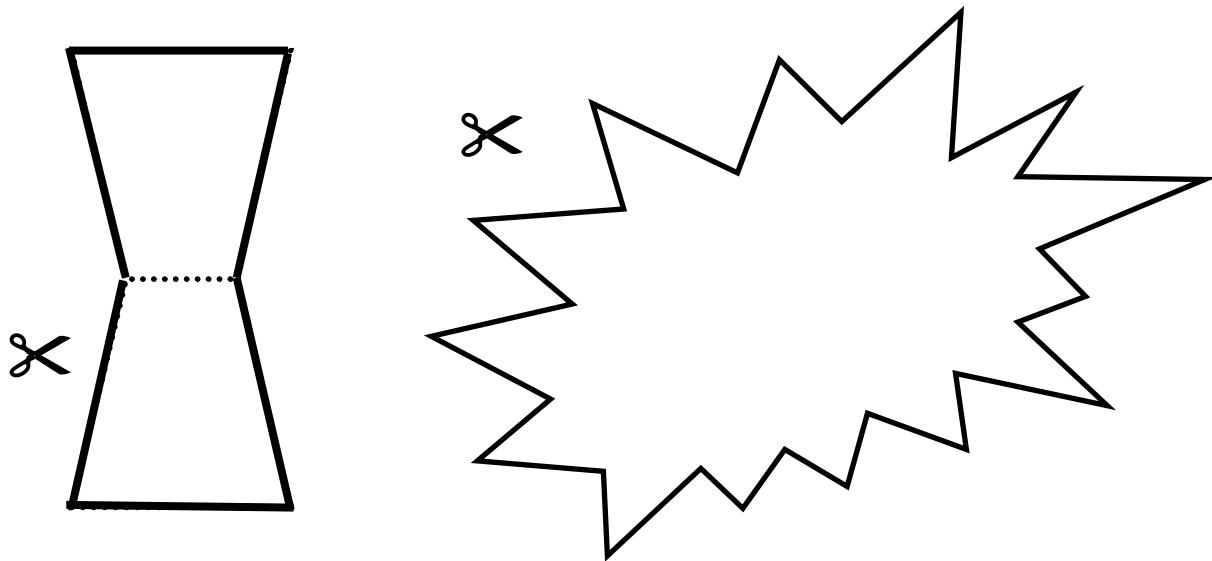
*1 moneda de diez  
 centavos  
 suma  
 6 centavos*



Summer Math: Paper Coins



# Family Fun Game - Unit 2/ Unidad 2



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3





A.

$$5\text{¢} + 5\text{¢} =$$

B.

$$7\text{¢} + 3\text{¢} =$$

C.

$$3\text{¢} + 9\text{¢} =$$

D.

Jose has 6 cents.  
He found 5 more cents.  
How much money did he  
have then?

*José tiene 6 centavos.  
Encontró 5 centavos más.  
¿Cuánto dinero tenía  
entonces?*

E.

Maria had 8 cents.  
She found 2 more cents.  
How much money did she  
have then?

*María tiene 8 centavos.  
Encontró 2 centavos más.  
¿Cuánto dinero tenía  
entonces?*

F.

Martin had 7 cents.  
He found 5 more cents.  
How much money did he  
have then?

*Martín tiene 7 centavos.  
Encontró 5 centavos más.  
¿Cuánto dinero tenía  
entonces?*

G.

1 dime  
add  
5 pennies

1 “dime”  
suma  
5 centavos

H.

1 dime  
add  
4 pennies

1 “dime”  
suma  
4 centavos

I.

1 dime  
add  
8 pennies

1 “dime”  
suma  
8 centavos



J.

Which combination  
makes 10?

$6 + 4$  or  $5 + 4$

*¿Qué combinación hace  
10?*

K.

Which combination  
makes 10?

$5 + 6$  or  $5 + 5$

*¿Qué combinación hace  
10?*

L.

Which combination  
makes 10?

$1 + 9$  or  $2 + 9$

*¿Qué combinación hace  
10?*

M.

Count by tens  
from 10 to 100.

*Cuenta por diez  
de 10 a 100.*

N.

The gila monster ate 5 ants.  
Then he ate 4 more ants.  
How many ants did the gila  
monster eat?

*El monstruo de gila comió 5  
hormigas. Entonces comió 4  
hormigas más. ¿Cuántas  
hormigas comió?*

O.

Roadrunner had 10 bugs he  
had caught. 5 flew away  
before he could eat them.  
How many did he have left?

*Chaparral tenía 10 bichos  
que había atrapado. 5 se  
volaron antes de comerlos.  
¿Cuántos le quedaron?*

P.

There were 10 coyotes  
howling at the moon. 6 ran  
away. How many were left  
to howl at the moon?

*Había 10 coyotes aullando a  
la luna. 6 se fueron.  
¿Cuántos quedaron  
aullando a la luna?*

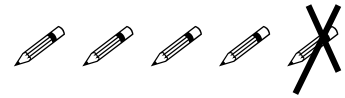
Q.

Jack Rabbit nibbled on 3  
sage leaves. Then he  
nibbled on 4 more. How  
many sage leaves did he  
nibble on?

*Liebre mordisqueó 3 hojas  
de salvia. Entonces  
mordisqueó 4 más.  
¿Cuántas hojas de salvia  
mordisqueó?*

R.

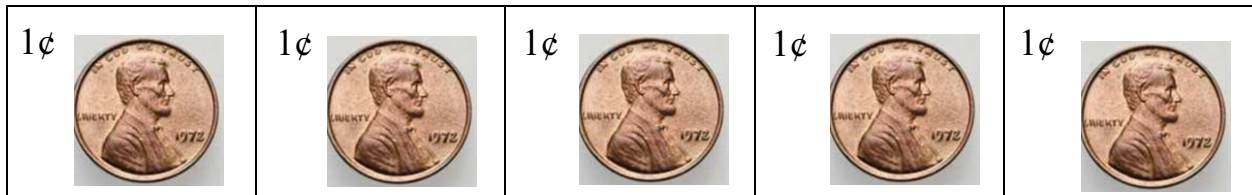
Write the  
number sentence for



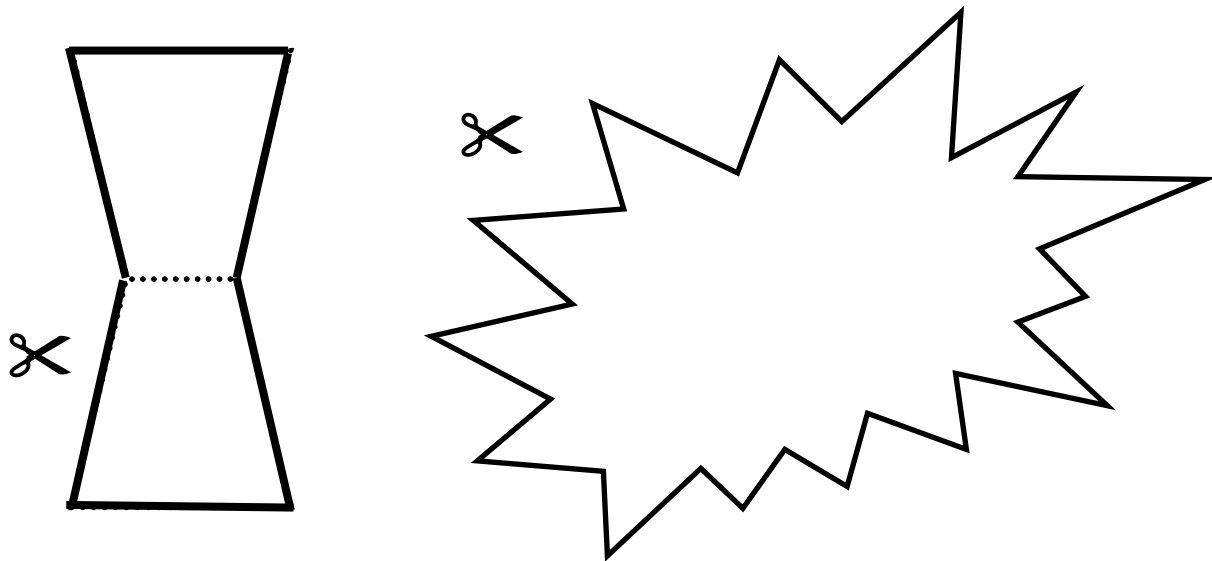
*Escribe la oración  
numérica por*



Summer Math: Paper Coins



# Family Fun Game - Unit 3/ Unidad 3



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



## Generic Family Fun Game Board

### Materials Generic to All Units:

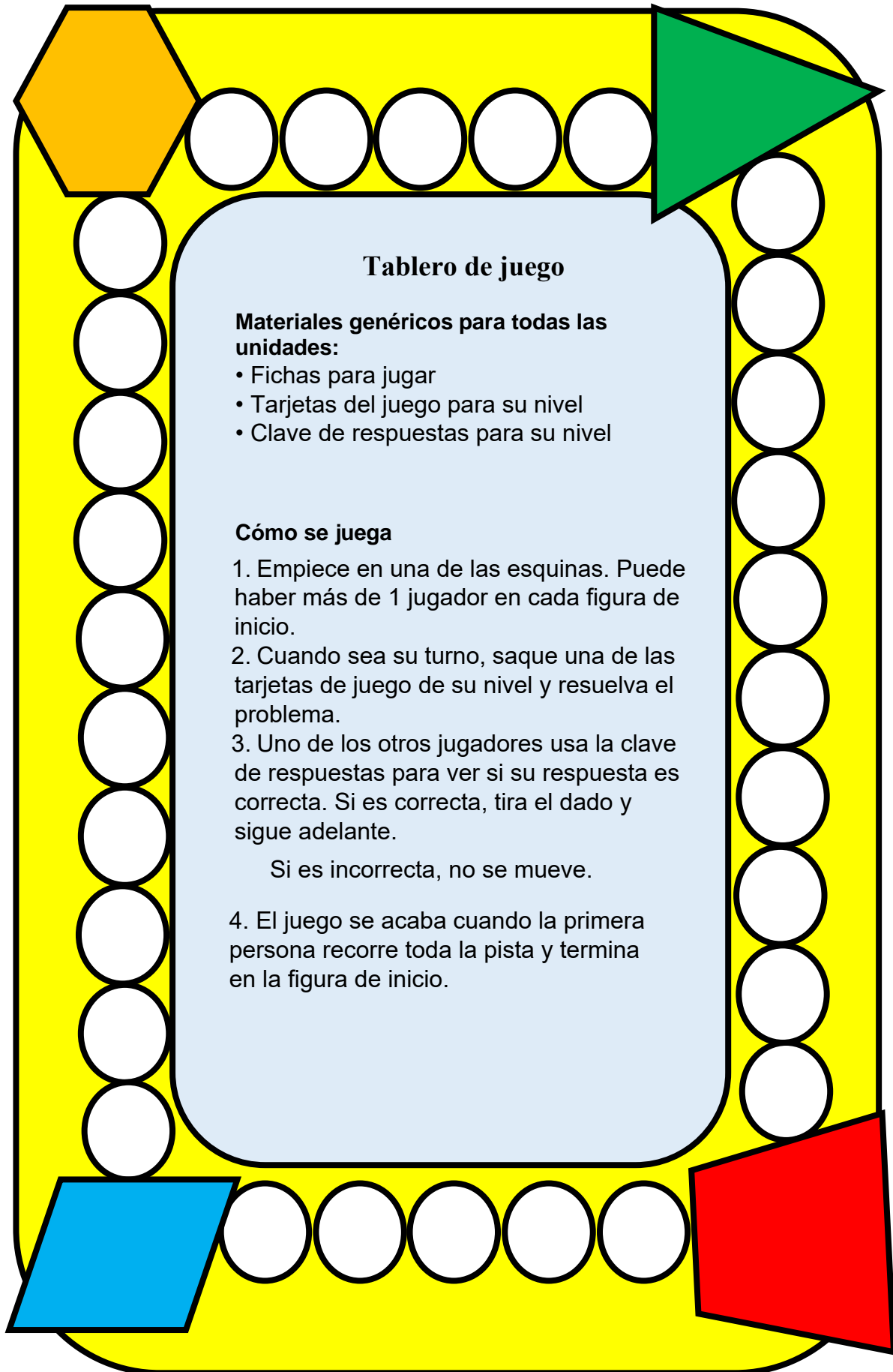
- Game Markers
- Game Cards for your Level
- Answer Key for your Level

### Playing the Game

1. Begin in one of the corner shapes. There may be more than 1 player in each starting shape. Remember where you started.
2. On your turn, draw one of your level game cards and work the problem.
3. One of the other players uses the Answer Key to check your answer. If correct, roll the die and move ahead.

If incorrect, do not move.

4. Game is over when the first person runs the entire track, ending back on the starting shape.



## Tablero de juego

### Materiales genéricos para todas las unidades:

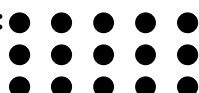
- Fichas para jugar
- Tarjetas del juego para su nivel
- Clave de respuestas para su nivel

### Cómo se juega

1. Empiece en una de las esquinas. Puede haber más de 1 jugador en cada figura de inicio.
2. Cuando sea su turno, saque una de las tarjetas de juego de su nivel y resuelva el problema.
3. Uno de los otros jugadores usa la clave de respuestas para ver si su respuesta es correcta. Si es correcta, tira el dado y sigue adelante.  
Si es incorrecta, no se mueve.
4. El juego se acaba cuando la primera persona recorre toda la pista y termina en la figura de inicio.



A.  
Show the number card that tells you how many black dots there are:



*Muestra la tarjeta con el número que representa cuántos puntos negros hay.*

B.  
Show the number card that tells you how many butterflies there are:



*Muestra la tarjeta con el número que representa cuántas mariposas hay.*

C.  
Show the number card that tells you how many stars there are:



*Muestra la tarjeta con el número que representa cuántas estrellas hay.*

D.  
Show me a set of  
**8**  
counters.

*Muéstrame un grupo de 8 contadores.*

E.  
Show me a set of  
**15**  
counters.

*Muéstrame un grupo de 8 contadores.*

F.  
Show me a set of  
**10**  
counters.

*Muéstrame un grupo de 8 contadores.*

G.  
The gila monster ate 5 ants. Then he ate 7 more ants. How many ants did the gila monster eat?

*El monstruo de gila comió 5 hormigas. Entonces comió 7 hormigas más. ¿Cuántas hormigas comió?*

H.  
Jack Rabbit nibbled on 6 sage leaves. Then he nibbled on 4 more. How many sage leaves did he nibble on?

*Liebre mordisqueó 6 hojas de salvia. Entonces mordisqueó 4 más. ¿Cuántas hojas de salvia mordisqueó?*

I.  
Roadrunner had 10 bugs he had caught. 7 flew away before he could eat them. How many bugs did he have left?

*Chaparral tenía 10 bichos que había atrapado. 7 se volaron antes de comerlos. ¿Cuántos le quedaron?*

**J.**  
 Lizard laid 5 eggs.  
 3 eggs broke.  
 How many eggs were not broken?  
*Lagartija puso 5 huevos. 3 huevo se quebraron. ¿Cuántos huevos están enteros?*

**K.**  
 Lizard laid 6 eggs in one hole and 4 eggs in another hole. How many eggs did she lay?  
*Lagartija puso 6 huevos en un hueco y 4 huevos en otro. ¿Cuántos huevos puso?*

**L.**  
 Lizard laid 12 eggs. 4 were white. The rest were brown. How many were brown?  
*Lagartija puso 12 huevos. 4 fueron blancos. Los otros marrones. ¿Cuántos huevos marrones había?*

**M.** (Show the real coin.)  
 Tell me the name of this coin.



*Dime cómo se llama esta moneda.*

**N.** (Show the real coin.)  
 Tell me the name of this coin.



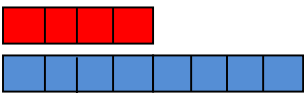
*Dime cómo se llama esta moneda.*

**O.** (Show the real coin.)  
 Tell me the name of this coin.



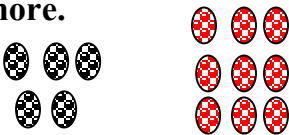
*Dime cómo se llama esta moneda.*

**P.** Which set has more?  
 Point to the set that has more.




*¿Qué grupo tiene más. Señala con el dedo el juego que tiene más?*

**Q.** Which set has more?  
 Point to the set that has more.



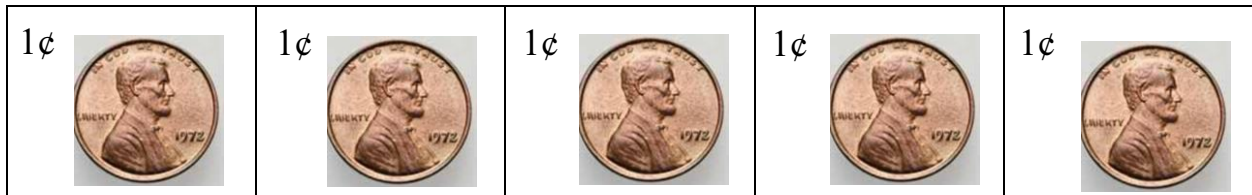
*¿Qué grupo tiene más. Señala con el dedo el juego que tiene más?*

**R.** Which set has more?  
 Point to the set that has more.



*¿Qué grupo tiene más. Señala con el dedo el juego que tiene más?*

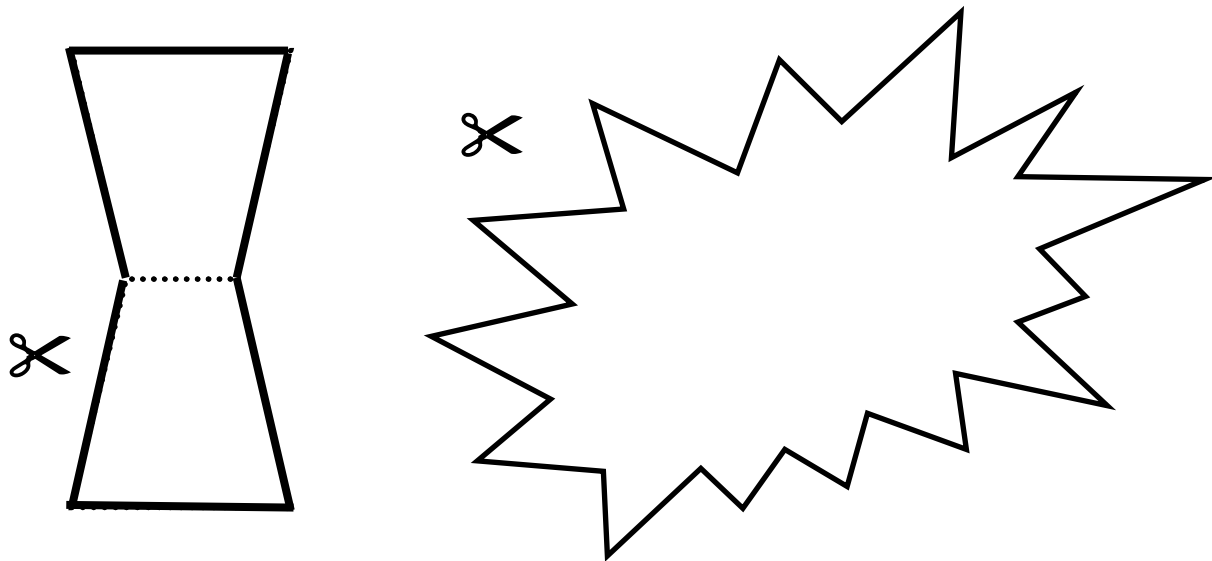






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<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>

# Family Fun Game - Unit 4/ Unidad 4



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



**A.**  
The Gila monster ate 9 ants. Then he ate 5 more ants. How many ants did the Gila monster eat?  
*El monstruo de Gila se comió 9 hormigas. Después se comió 5 más. ¿Cuántas hormigas se comió el monstruo de Gila?*

**B.**  
Lizard laid 7 eggs. 3 eggs broke. How many eggs were not broken?  
*La lagartija puso 7 huevos. 3 huevos se rompieron. ¿Cuántos huevos no se rompieron?*

**C.**  
Lizard laid 11 eggs. 4 were white. The rest were brown. How many were brown?  
*La lagartija puso 11 huevos. 4 eran blancos. El resto, color café. ¿Cuántos huevos eran color café?*

**D.**  
Show me a set of 10 counters.  
  
Now show me the number card for 10 counters.  
*Muéstrame un grupo de 10 contadores.*  
*Ahora, muéstrame la tarjeta con el número para los 10 contadores*

**E.**  
Show me a set of 15 counters.  
  
Now show me the number card for 15 counters.  
*Muéstrame un grupo de 15 contadores.*  
*Ahora, muéstrame la tarjeta con el número para los 15 contadores*

**F.**  
Show me a set of 12 counters  
  
Now show me the number card for 12 counters.  
*Muéstrame un grupo de 12 contadores.*  
*Ahora, muéstrame la tarjeta con el número para los 12 contadores*

**G.**  
Tell me the name of this coin.  
(Show a real dime)  
  
*Dime el nombre de esta moneda.*

**H.**  
Tell me the name of this coin.  
(Show a real penny)  
  
*Dime el nombre de esta moneda.*

**I.**  
Tell me the name of this coin.  
(Show a real dime)  
  
*Dime el nombre de esta moneda.*



**J.**  
**Tell me how you know  
 you have a half of a  
 snack.**

*Explica cómo sabes que  
 tiene la mitad de un  
 bocadillo.*

**K.**  
 (Give student a 3 x 5 card  
 or piece of paper)

**Share this card in fair  
 shares for 2 people.**

*Comparte esta tarjeta  
 en partes iguales para 2  
 personas.*

**L.**  
**What do you call fair  
 shares when you share  
 between 2 people?**

*¿Cómo llamas a las  
 partes iguales cuando  
 compartes entre 2  
 personas?*

**M.**  
**Crow drank 7 drops of  
 water, then he drank 6  
 drops of water. How  
 many drops of water did  
 crow drink?**

**Cuervo bebio 7 gotas de  
 agua y luego comio 6  
 gotas de agua. Cuantas  
 gotas de agua bebio  
 cuevo?**

**N.**  
**Lion had 10 thorns in his  
 paw. 7 of them fell out.  
 How many thorns were  
 left in his paw?**

**Leon tenia una espina en  
 su pata. 7 de ellas se  
 quitaron. Cuantas  
 espinas se quedaron en su  
 pata?**

**O.**  
**Rabbit ran 5 miles. He  
 rested, then he ran  
 another 5 miles. How  
 many miles did rabbit  
 run?**

**Liebre corrio 5 millas.  
 Descanso y luego corrio  
 otras 5 millas. Cuantas  
 millas corrio Liebre?**

**P.**  
**Lion had 5 brothers.  
 Mouse had 8 brothers.  
 Show me the 2 sets.  
 Who had more?**

**León tenía 5 hermanos.  
 Raton tenía 8 hermanos.  
 Muéstrame los 2 grupos.  
 ¿Quién tenía más?**

**Q.**  
**Lion saw 12 butterflies.  
 Mouse saw 11 butterflies.  
 Show me the 2 sets.  
 Who saw more?**

**León vio 12 mariposas.  
 Ratón vio 11 mariposas.  
 Muéstrame los 2 grupos.  
 ¿Quién vio más?**

**R.**  
**Lion saw 12 pebbles.  
 Mouse saw 13 pebbles.  
 Show me the 2 sets.  
 Who saw more?**

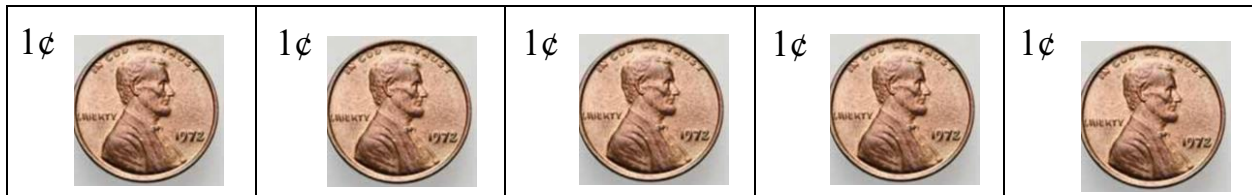
**León vio 12 piedras.  
 Ratón vio 13 piedras.  
 Muéstrame los 2 grupos.  
 ¿Quién vio más?**

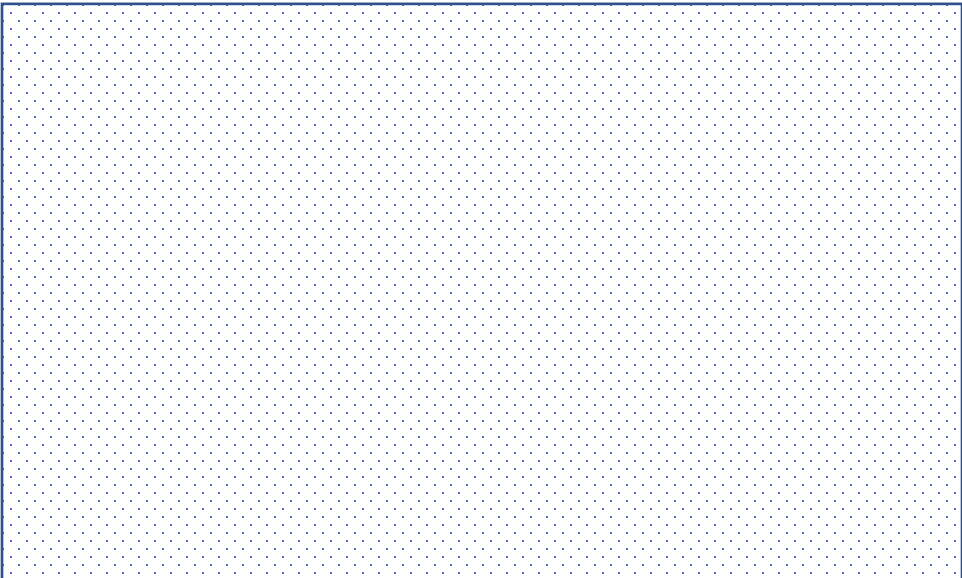


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<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
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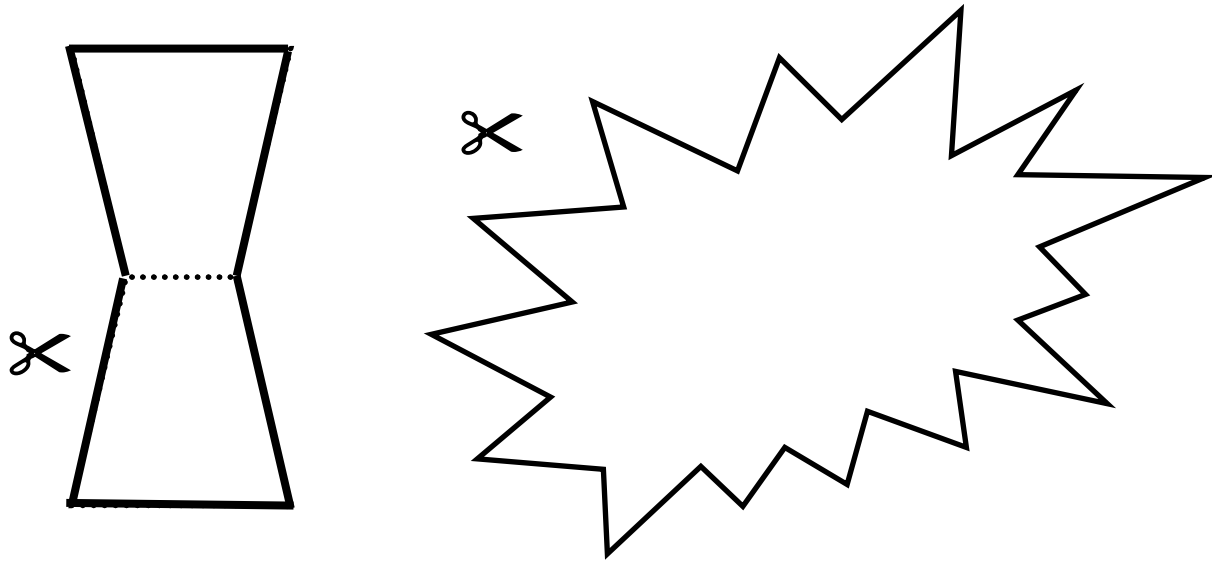
Summer Math: Paper Coins







# Family Fun Game - Unit 5/ Unidad 5



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



## Generic Family Fun Game Board

### Materials Generic to All Units:

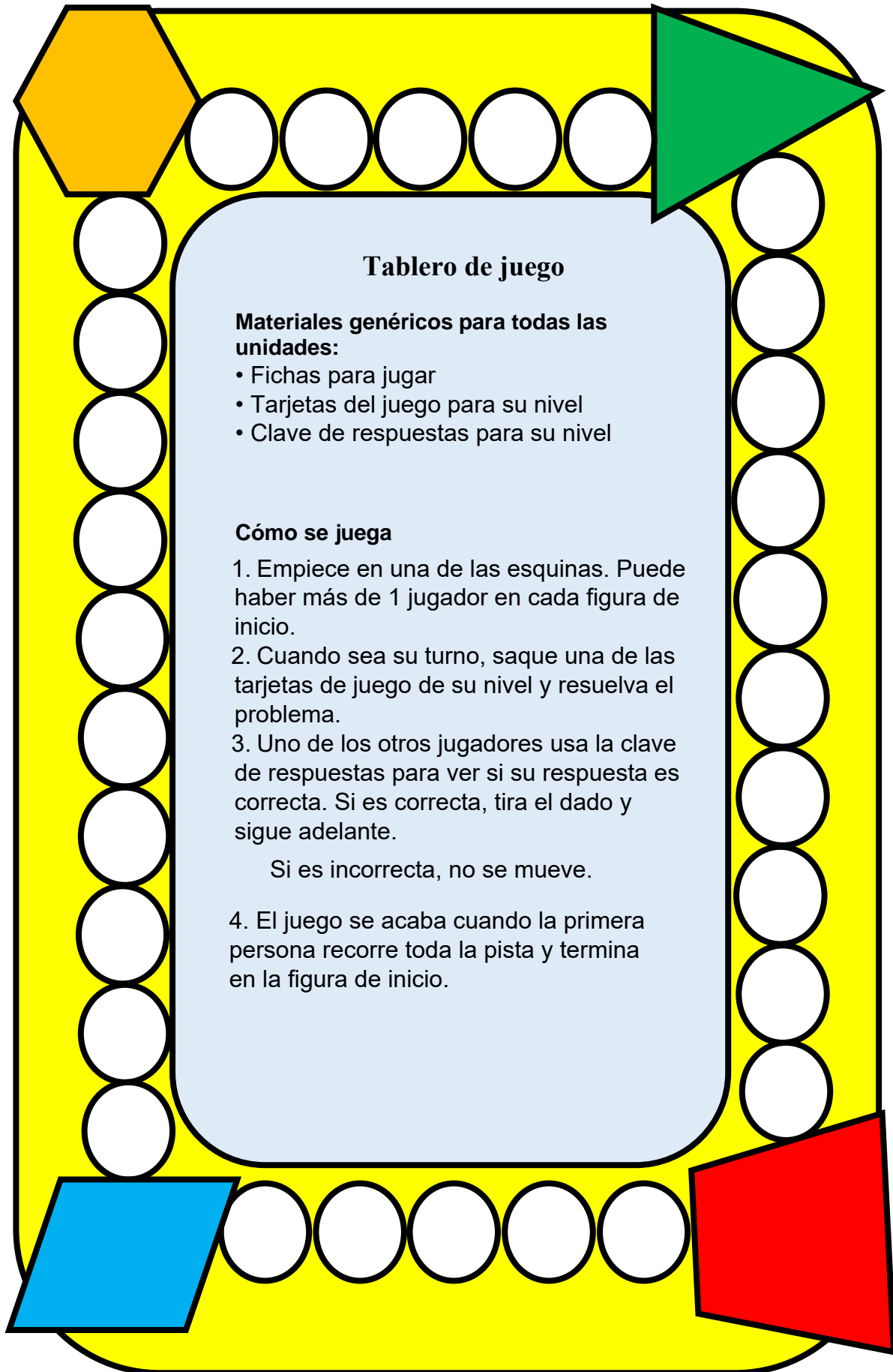
- Game Markers
- Game Cards for your Level
- Answer Key for your Level

### Playing the Game

1. Begin in one of the corner shapes. There may be more than 1 player in each starting shape. Remember where you started.
2. On your turn, draw one of your level game cards and work the problem.
3. One of the other players uses the Answer Key to check your answer. If correct, roll the die and move ahead.

If incorrect, do not move.

4. Game is over when the first person runs the entire track, ending back on the starting shape.



## Tablero de juego

### Materiales genéricos para todas las unidades:

- Fichas para jugar
- Tarjetas del juego para su nivel
- Clave de respuestas para su nivel

### Cómo se juega

1. Empiece en una de las esquinas. Puede haber más de 1 jugador en cada figura de inicio.
2. Cuando sea su turno, saque una de las tarjetas de juego de su nivel y resuelva el problema.
3. Uno de los otros jugadores usa la clave de respuestas para ver si su respuesta es correcta. Si es correcta, tira el dado y sigue adelante.  
Si es incorrecta, no se mueve.
4. El juego se acaba cuando la primera persona recorre toda la pista y termina en la figura de inicio.



A. *(Show player 15 beans, then say:)*

**Count the beans.**

**Show me the number card that tells how many there are.**

*Cuenta los frijoles.*

*Muéstrame la tarjeta de número que muestra cuántos hay.*

B. *(Put 15 counters on the table, then say:)*

**Show me a set of 9 counters.**

**Now show me the number card that tells how many there are.**

*Muéstrame un grupo de 9 fichas.*

*Ahora, muéstrame la tarjeta de número que muestra cuántos hay.*

C. *(Put 20 counters on the table, then say:)*

**Show me a set of 10 counters.**

**Now show me the number card that tells how many there are.**

*Muéstrame un grupo de 10 fichas.*

*Ahora, muéstrame la tarjeta de número que muestra cuántos hay.*

D.

**There were 10 cicadas in a tree. 8 of them were singing. How many cicadas were not singing?**

*Había 10 cicadas en un árbol. 8 de ellas cantaban. ¿Cuántas cicadas no cantaban?*



**E.**

**5 mice were playing in the kitchen. 3 mice were playing in the den. How many mice were playing?**

*5 ratones jugaban en la cocina. 3 ratones jugaban en la sala.  
¿Cuántos ratones jugaban?*

**F.**

**An ant carried 6 leaves to the ant hill. Then he carried 3 leaves to the ant hill. How many leaves did the ant carry to the ant hill?**

*Una hormiga llevó 6 hojas al hormiguero. Después llevó 3 hojas al hormiguero. ¿Cuántas hojas llevó la hormiga al hormiguero?*

**G**

*Show player a penny, then say:*

**Tell me the name of this coin.**

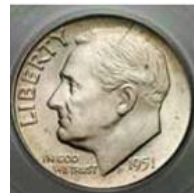


*Dime el nombre de esta moneda.*

**H.**

*Show player a dime, then say:*

**Tell me the name of this coin.**

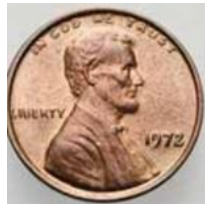


*Dime el nombre de esta moneda.*

**I.**

*Show player a penny, then say:*

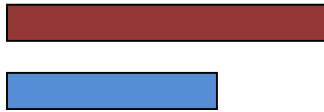
**Tell me the name of this coin.**



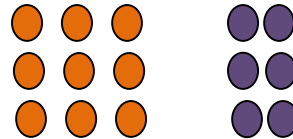
*Dime el nombre de esta moneda.*



**J.**  
Which set has more?  
*¿Qué grupo tiene más?*



**K.**  
Which set has more?  
*¿Qué grupo tiene más?*



**L.**  
Which set has more?  
*¿Qué grupo tiene más?*



**M.**  
(Give the player a 3 x 5 card, then say:)  
**Share this card with me in fair shares.**

*Comparte esta tarjeta conmigo en partes iguales.*

**N.**

*Show the player a 3 x 5 card, divided into halves, then say:*

**What do we call these fair shares?**

*¿Cómo llamamos a estas partes iguales?*

**O.**

*Show the player a 3 x 5 card, divided into halves, then say:*

**How do you know this card has been divided into halves?**

*¿Cómo sabes que esta tarjeta está dividida en mitades?*

**P.**

**Mary had 5 flowers.**

**Carla had 2 flowers.**

**How many flowers did they have together?**

*María tenía 5 flores.*

*Carla tenía 2 flores.*

*¿Cuántas flores tenían juntas?*

**Q.**

**There were 10 flowers on a bush.**

**Cathy picked 6 of them. How many flowers were still on the bush?**

*Había 10 flores en un arbusto. Cathy recogió 6 de ellas. ¿Cuántas flores quedaban en el arbusto?*

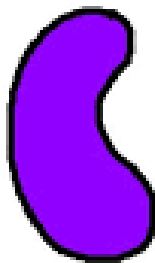
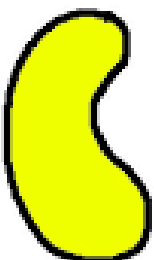
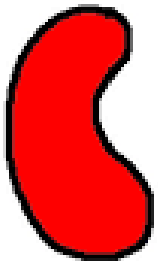
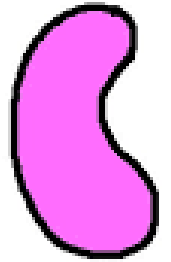
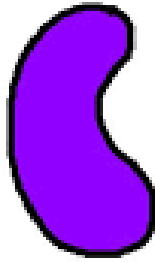
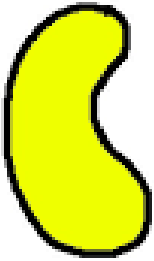
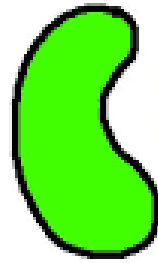
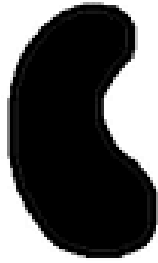
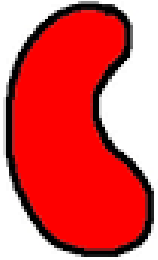
**R**

**David counted 9 frogs on a log. 9 of them jumped off the log into the water. How many frogs were still on the log?**

*David contó 9 ranas en un tronco. 9 de ellas saltaron al agua. ¿Cuántas ranas quedaban en el tronco?*

Unit 5

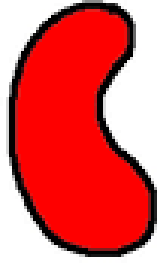
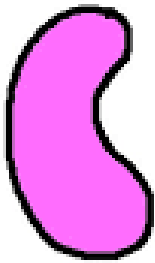
BEAN COUNTERS (15)





Unit 5

BEAN COUNTERS (+5 = 20)



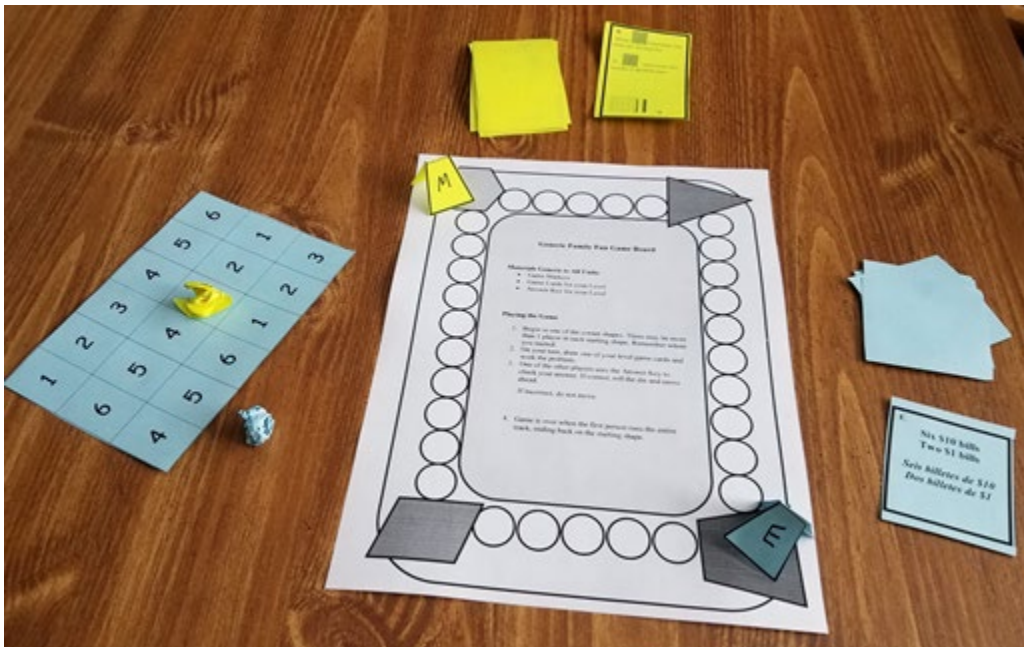


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<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
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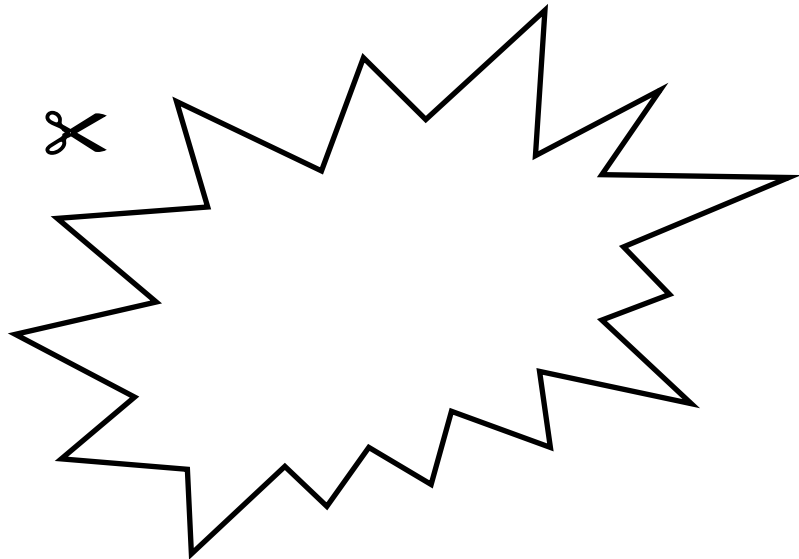
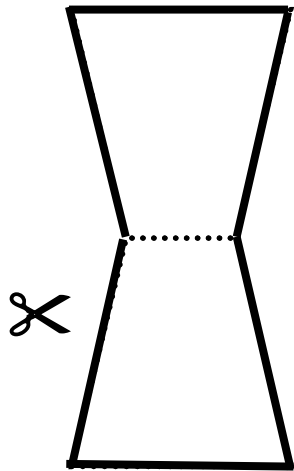
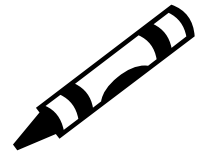
# Family Fun Game

## *Juego de diversión familiar*



*Crayon Pack*

# Family Fun Game - Unit 1/ Unidad 1



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



## Generic Family Fun Game Board

### Materials Generic to All Units:

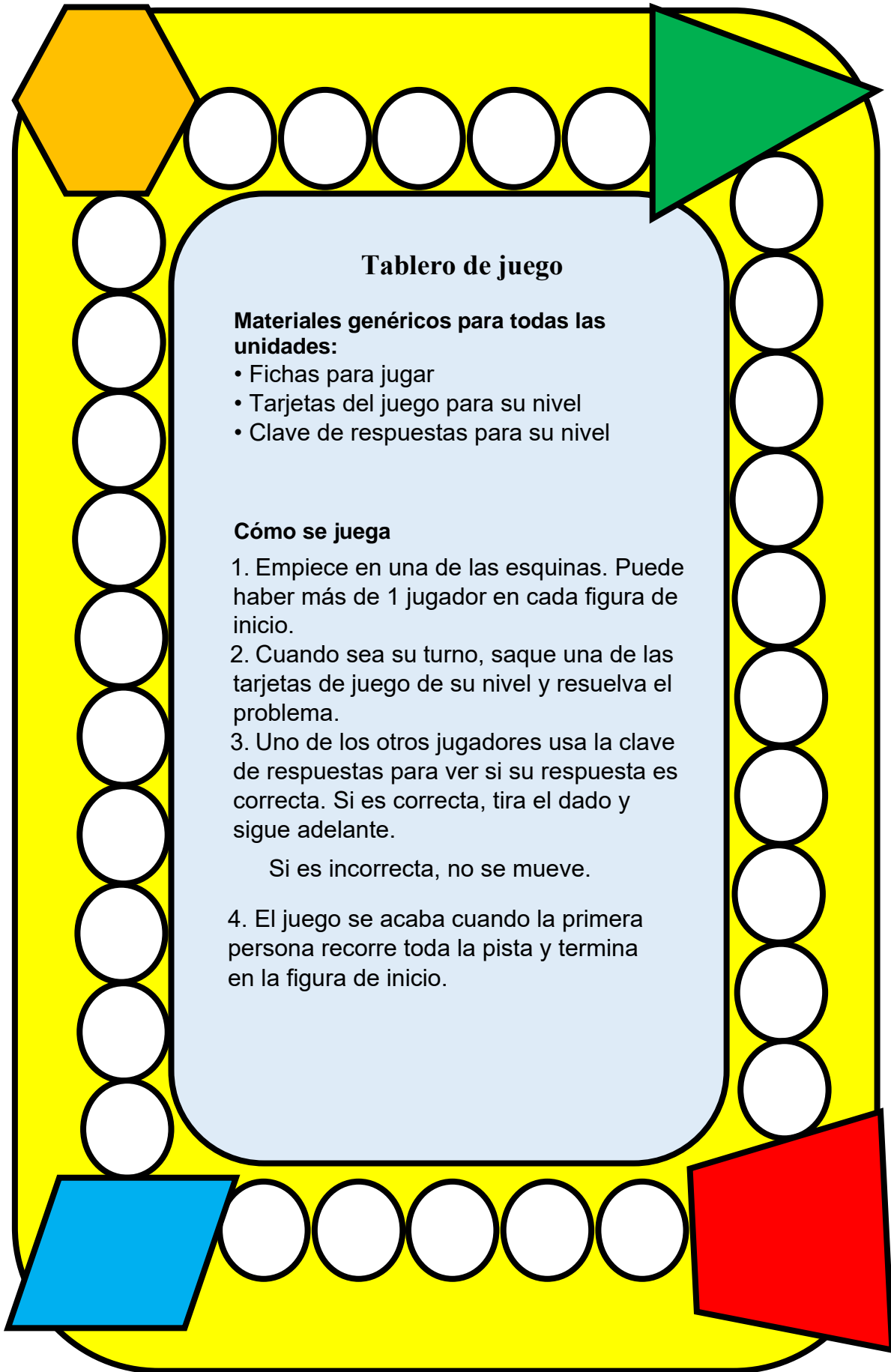
- Game Markers
- Game Cards for your Level
- Answer Key for your Level

### Playing the Game

1. Begin in one of the corner shapes. There may be more than 1 player in each starting shape. Remember where you started.
2. On your turn, draw one of your level game cards and work the problem.
3. One of the other players uses the Answer Key to check your answer. If correct, roll the die and move ahead.

If incorrect, do not move.

4. Game is over when the first person runs the entire track, ending back on the starting shape.



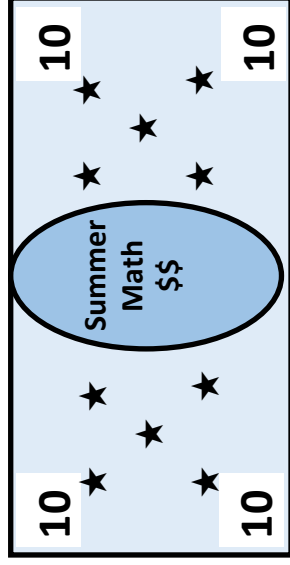
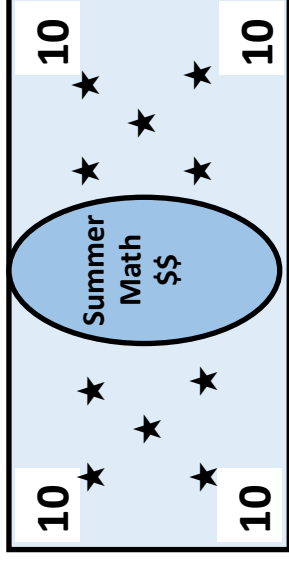
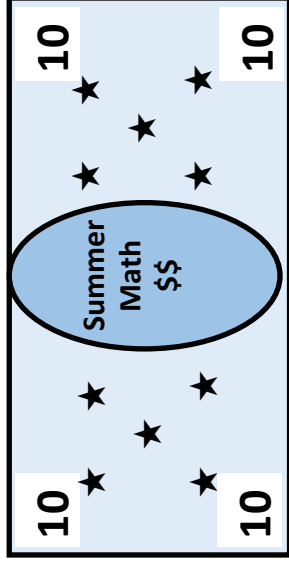
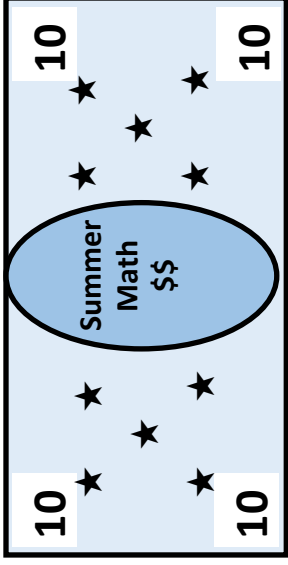
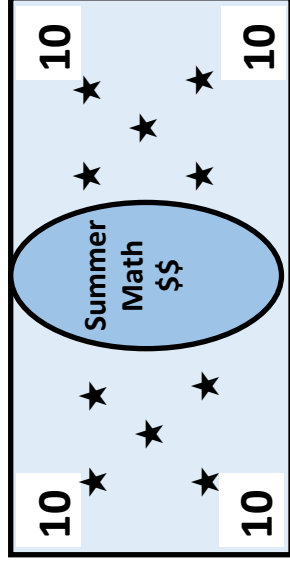
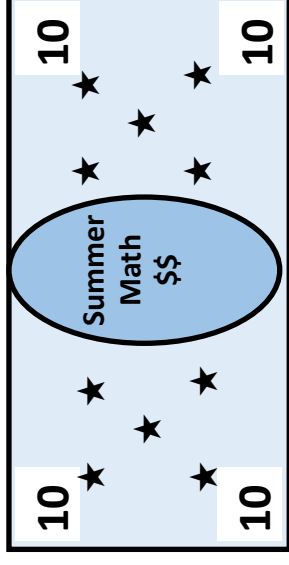
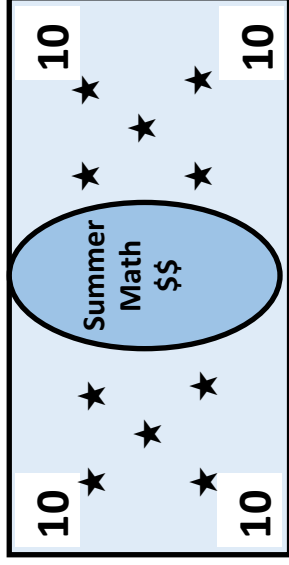
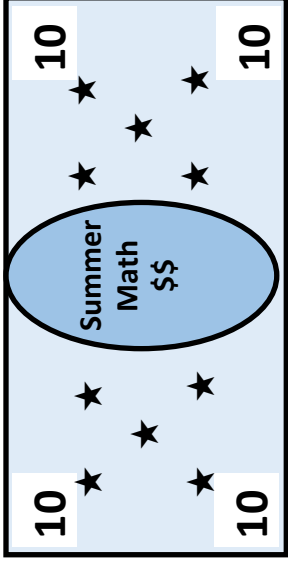
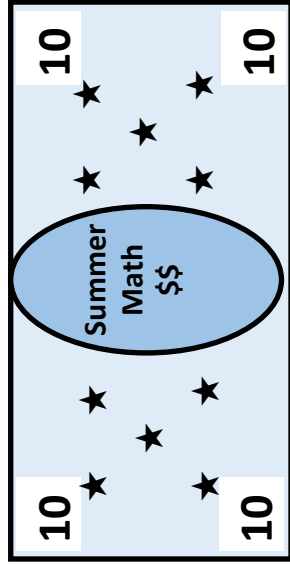
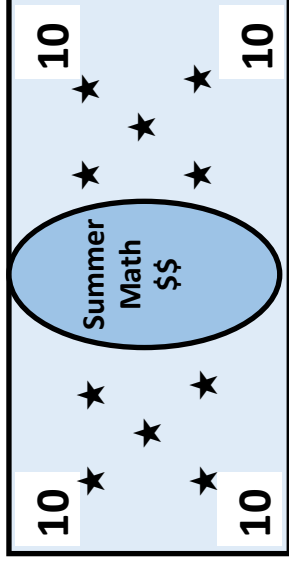
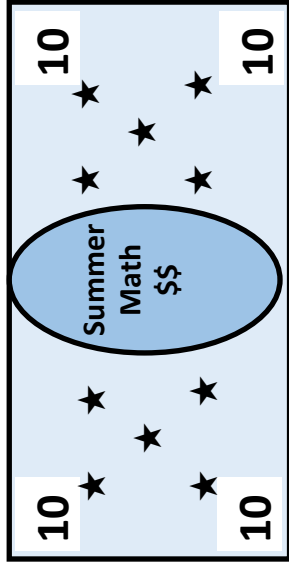
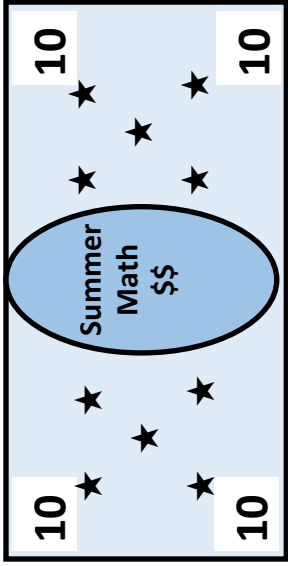
## Tablero de juego

### Materiales genéricos para todas las unidades:

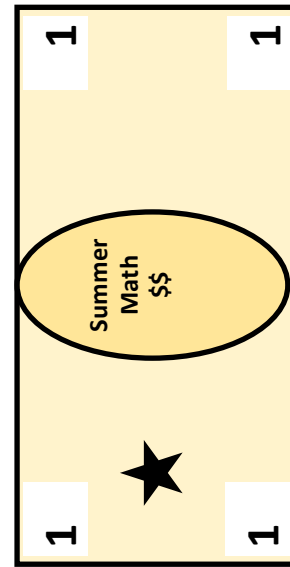
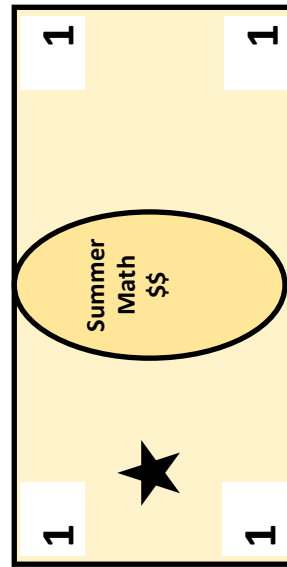
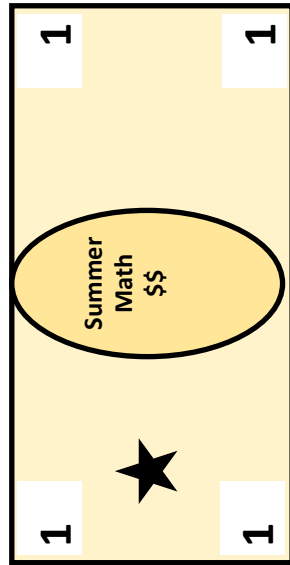
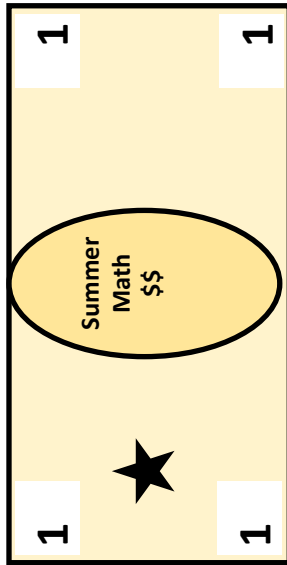
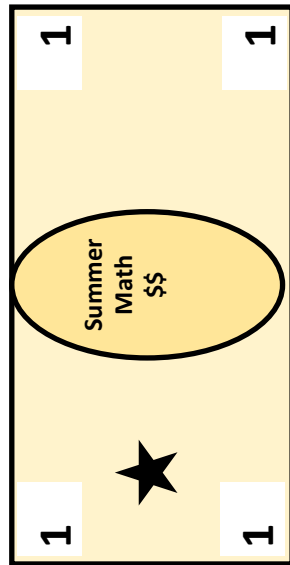
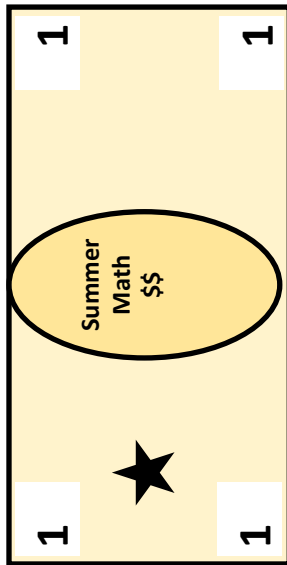
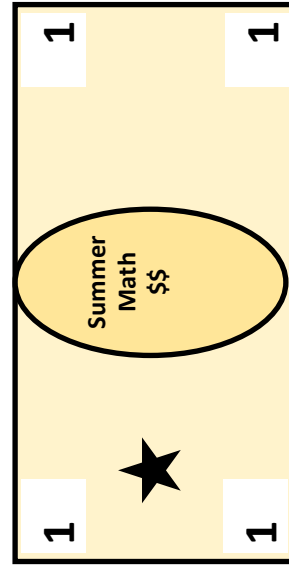
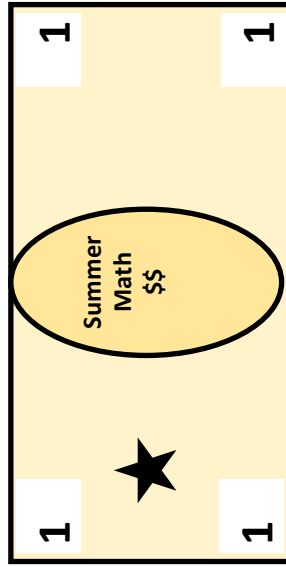
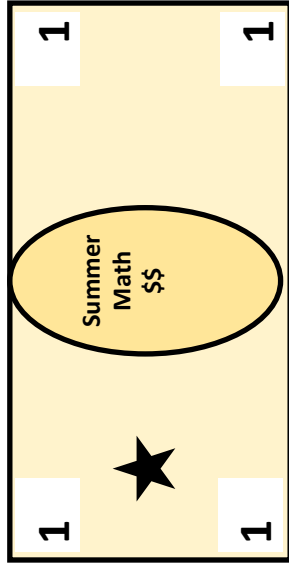
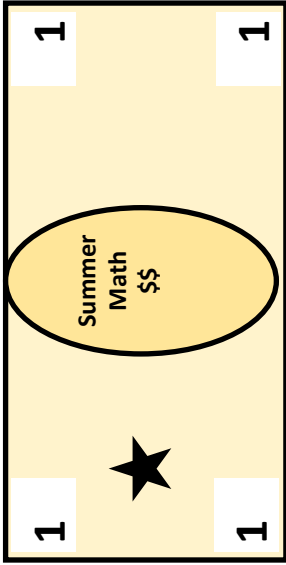
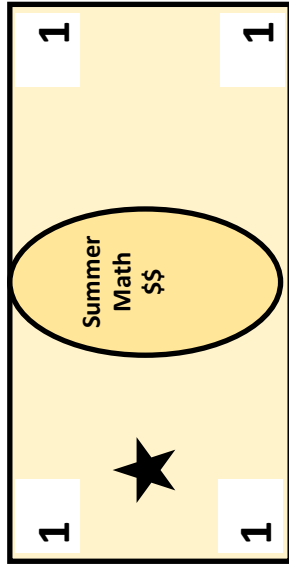
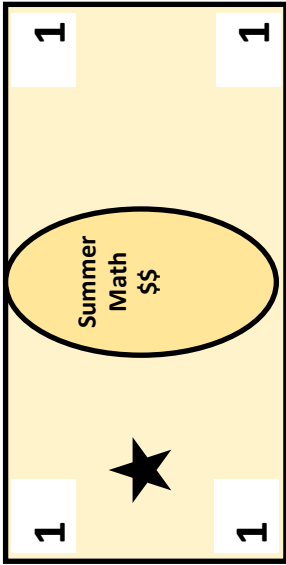
- Fichas para jugar
- Tarjetas del juego para su nivel
- Clave de respuestas para su nivel

### Cómo se juega

1. Empiece en una de las esquinas. Puede haber más de 1 jugador en cada figura de inicio.
2. Cuando sea su turno, saque una de las tarjetas de juego de su nivel y resuelva el problema.
3. Uno de los otros jugadores usa la clave de respuestas para ver si su respuesta es correcta. Si es correcta, tira el dado y sigue adelante.  
Si es incorrecta, no se mueve.
4. El juego se acaba cuando la primera persona recorre toda la pista y termina en la figura de inicio.









A.  
**Three \$10 bills**  
**Two \$1 bills**  
  
*Tres billetes de \$10*  
*Dos billetes de \$1*

B.  
**Four \$10 bills**  
**Two \$1 bills**  
  
*Cuatro billetes de \$10*  
*Dos billetes de \$1*

C.  
**Five \$10 bills**  
**Five \$1 bills**  
  
*Cinco billetes de \$10*  
*Cinco billetes de \$1*

D.  
**Seven \$10 bills**  
**Eight \$1 bills**  
  
*Siete billetes de \$10*  
*Ocho billetes de \$1*

E.  
**Six \$10 bills**  
**Two \$1 bills**  
  
*Seis billetes de \$10*  
*Dos billetes de \$1*

F.  
**Eight \$10 bills**  
**Two \$1 bills**  
  
*Ocho billetes de \$10*  
*Dos billetes de \$1*

G.  
**Two \$10 bills**  
**Eight \$1 bills**  
  
*Dos billetes de \$10*  
*Ocho billetes de \$1*

H.  
**One \$10 bills**  
**Two \$1 bills**  
  
*Un billete de \$10*  
*Dos billetes de \$1*

I.  
**Zero \$10 bills**  
**Eight \$1 bills**  
  
*Cero billetes de \$10*  
*Ocho billetes de \$1*



J.

Tod had \$20.  
He spent \$10.  
What did he have  
left?

*Tod tenía \$20.  
Gastó \$10.  
¿Cuánto le sobró?*

K.

Tod had \$42.  
He spent \$10.  
What did he have  
left?

*Tod tenía \$42.  
Gastó \$10.  
¿Cuánto le sobró?*

L.

Tod had \$35.  
He spent \$10.  
What did he have  
left?

*Tod tenía \$35.  
Gastó \$10.  
¿Cuánto le sobró?*

M.

Tod had \$25.  
He spent \$10.  
What did he have  
left?

*Tod tenía \$25.  
Gastó \$10.  
¿Cuánto le sobró?*

N.

Tod had \$31.  
He spent \$10.  
What did he have  
left?

*Tod tenía \$31.  
Gastó \$10.  
¿Cuánto le sobró?*

O.

Tod had \$55.  
He spent \$10.  
What did he have  
left?

*Tod tenía \$55.  
Gastó \$10.  
¿Cuánto le sobró?*

P.

Tod had \$47.  
He spent \$10.  
What did he have  
left?

*Tod tenía \$47.  
Gastó \$10.  
¿Cuánto le sobró?*

Q.

Tod had \$13.  
He spent \$10.  
What did he have  
left?

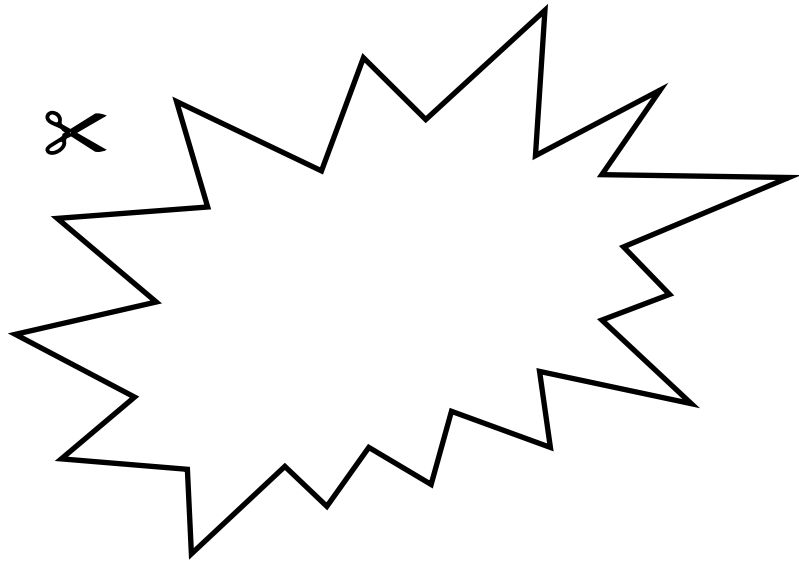
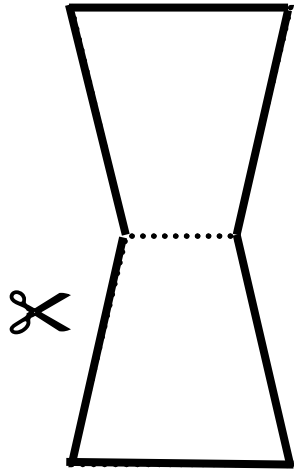
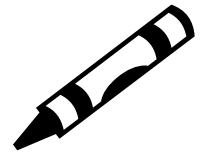
*Tod tenía \$13.  
Gastó \$10.  
¿Cuánto le sobró?*

R.

Tod had \$29.  
He spent \$10.  
What did he have  
left?

*Tod tenía \$29.  
Gastó \$10.  
¿Cuánto le sobró?*

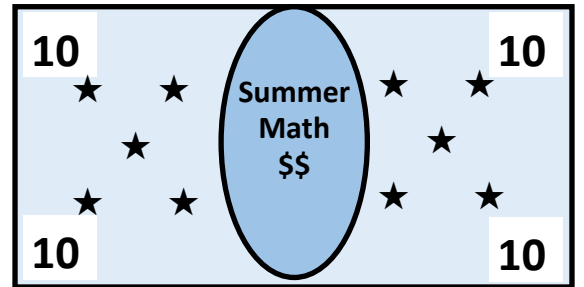
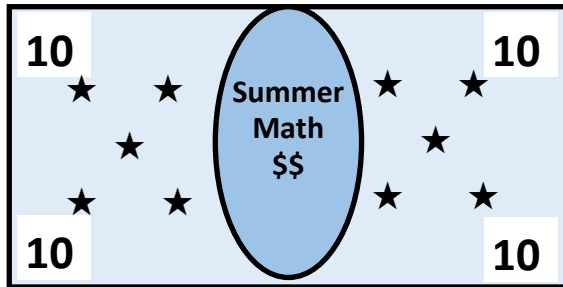
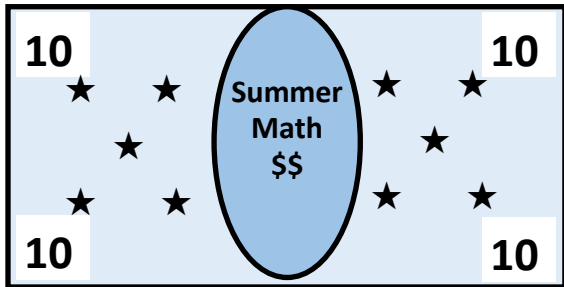
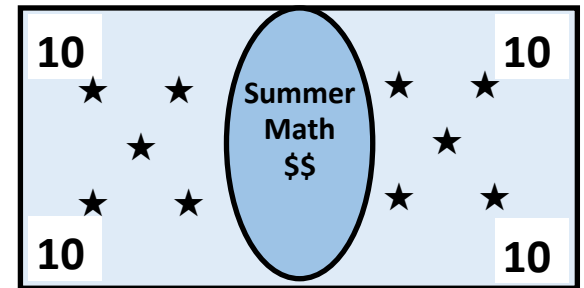
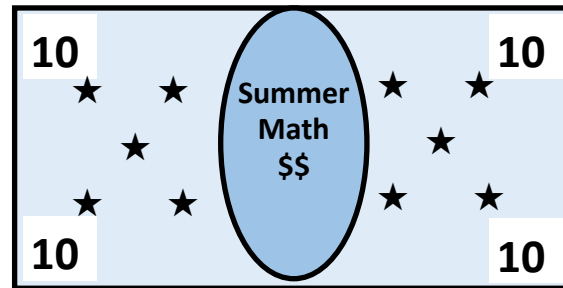
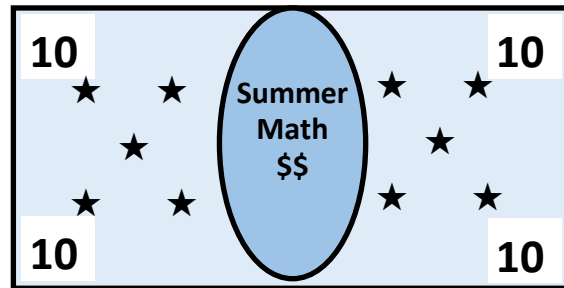
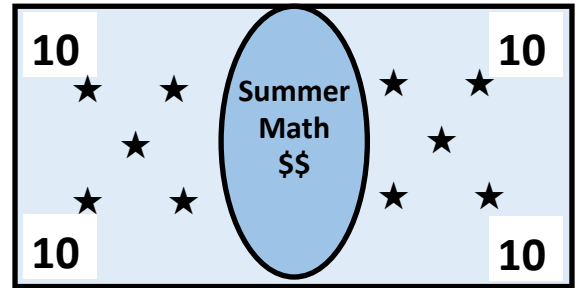
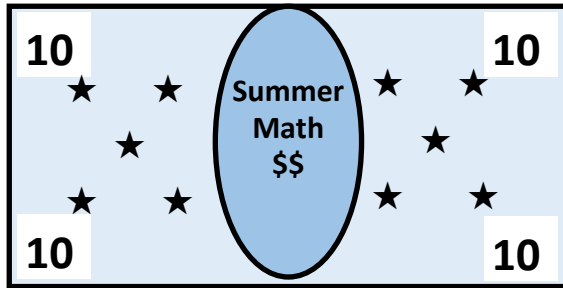
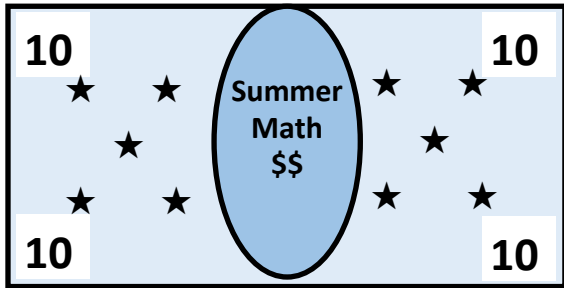
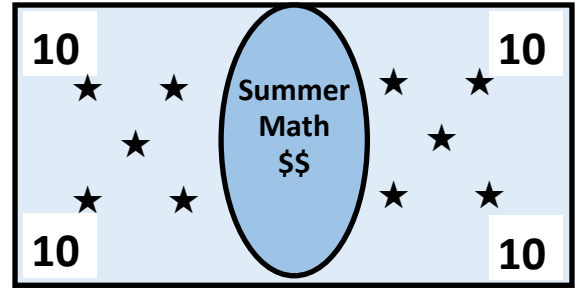
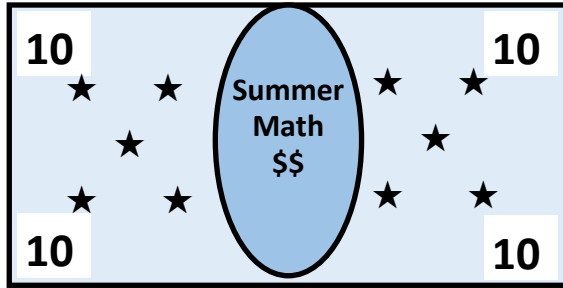
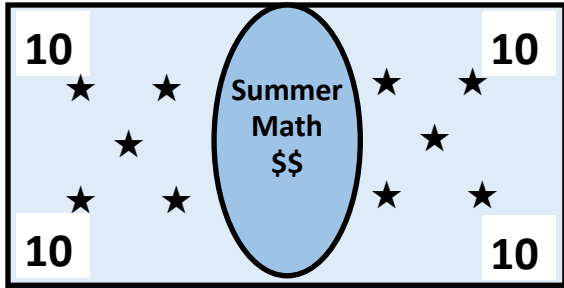
# Family Fun Game - Unit 2/ Unidad 2

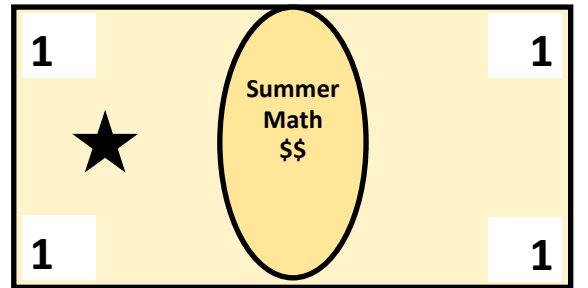
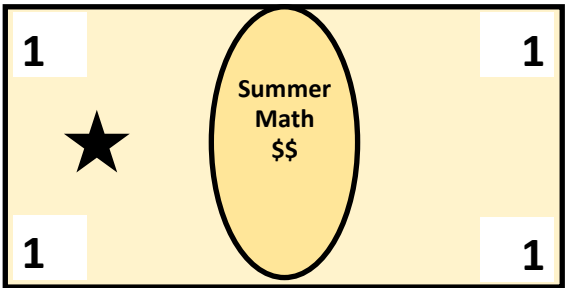
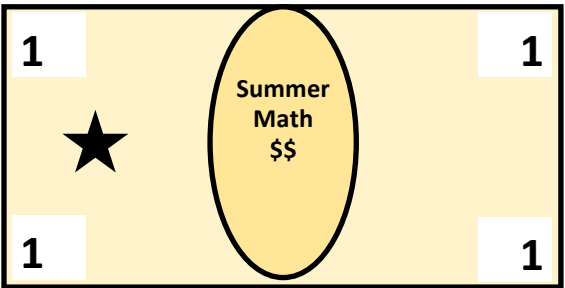
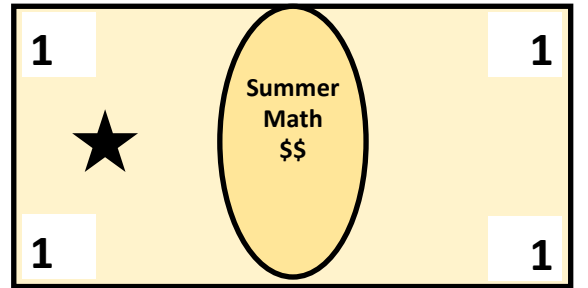
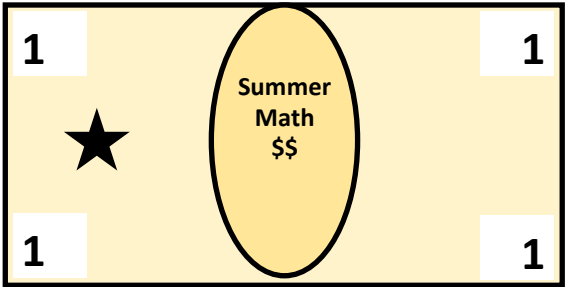
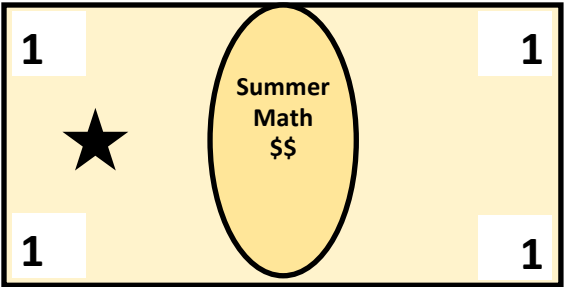
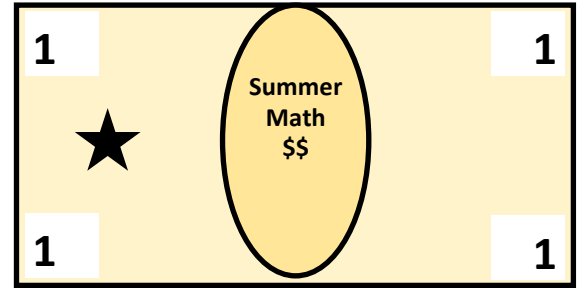
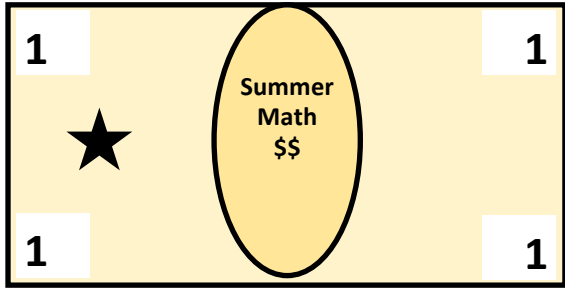
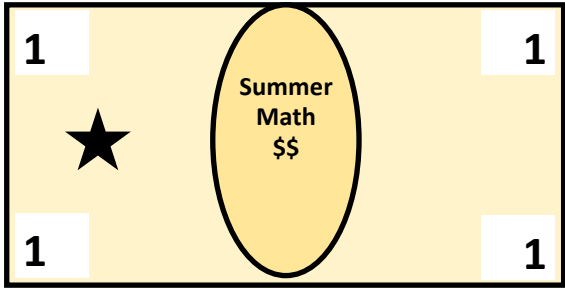
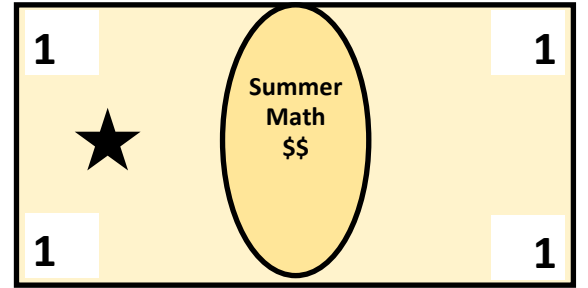
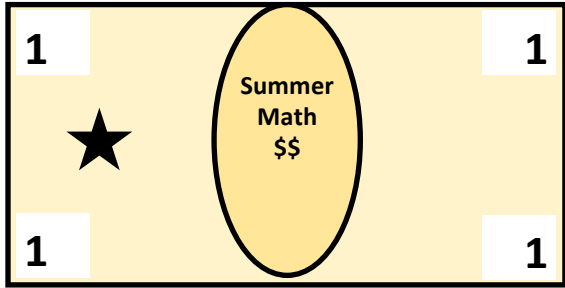
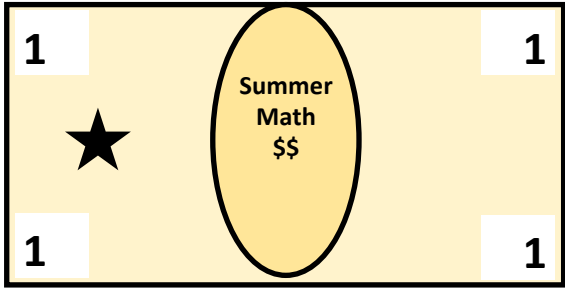


1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>
<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>48</b>	<b>49</b>	<b>50</b>
<b>51</b>	<b>52</b>	<b>53</b>	<b>54</b>	<b>55</b>	<b>56</b>	<b>57</b>	<b>58</b>	<b>59</b>	<b>60</b>
<b>61</b>	<b>62</b>	<b>63</b>	<b>64</b>	<b>65</b>	<b>66</b>	<b>67</b>	<b>68</b>	<b>69</b>	<b>70</b>
<b>71</b>	<b>72</b>	<b>73</b>	<b>74</b>	<b>75</b>	<b>76</b>	<b>77</b>	<b>78</b>	<b>79</b>	<b>80</b>
<b>81</b>	<b>82</b>	<b>83</b>	<b>84</b>	<b>85</b>	<b>86</b>	<b>87</b>	<b>88</b>	<b>89</b>	<b>90</b>
<b>91</b>	<b>92</b>	<b>93</b>	<b>94</b>	<b>95</b>	<b>96</b>	<b>97</b>	<b>98</b>	<b>99</b>	<b>100</b>
<b>101</b>	<b>102</b>	<b>103</b>	<b>104</b>	<b>105</b>	<b>106</b>	<b>107</b>	<b>108</b>	<b>109</b>	<b>110</b>
<b>111</b>	<b>112</b>	<b>113</b>	<b>114</b>	<b>115</b>	<b>116</b>	<b>117</b>	<b>118</b>	<b>119</b>	<b>120</b>







A.  
**Four \$10 bills**  
**Six \$1 bills**  
  
*Cuatro billetes de \$10*  
*Seis billetes de \$1*

B.  
**Five \$10 bills**  
**Nine \$1 bills**  
  
*Cinco billetes de \$10*  
*Nueve billetes de \$1*

C.  
**Four \$10 bills**  
**Five \$1 bills**  
  
*Cuatro billetes de \$10*  
*Cinco billetes de \$1*

D.  
Tod had \$50.  
He spent \$10.  
What did he have left?  
*Tod tenía \$50.*  
*Gastó \$10.*  
*¿Cuánto le sobró?*

E.  
Tod had \$100.  
He spent \$10.  
What did he have left?  
*Tod tenía \$100.*  
*Gastó \$10.*  
*¿Cuánto le sobró?*

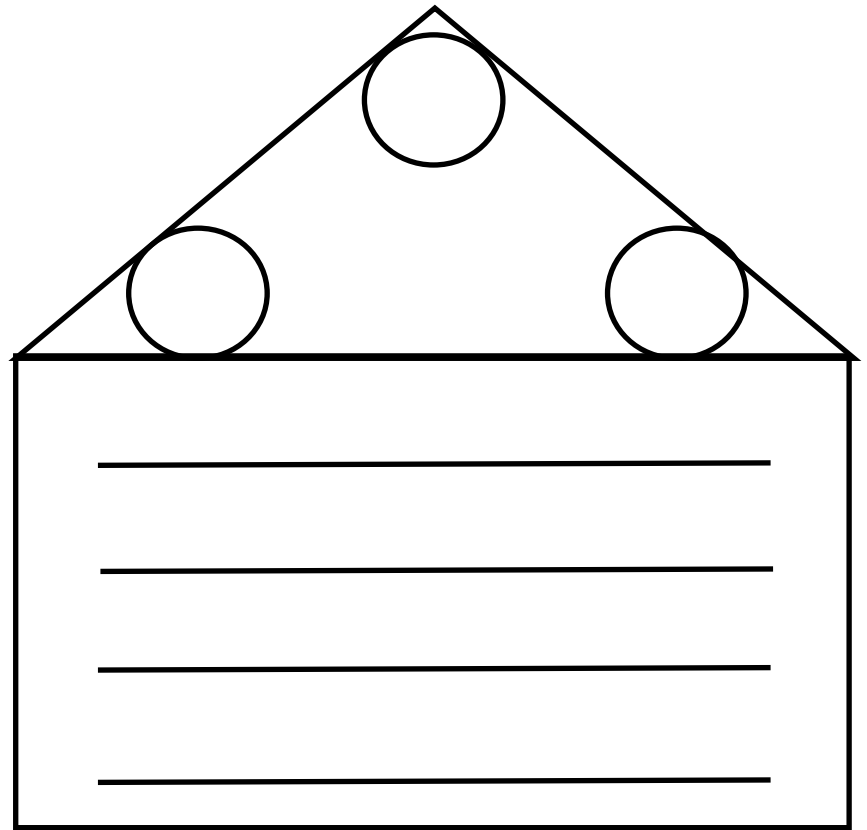
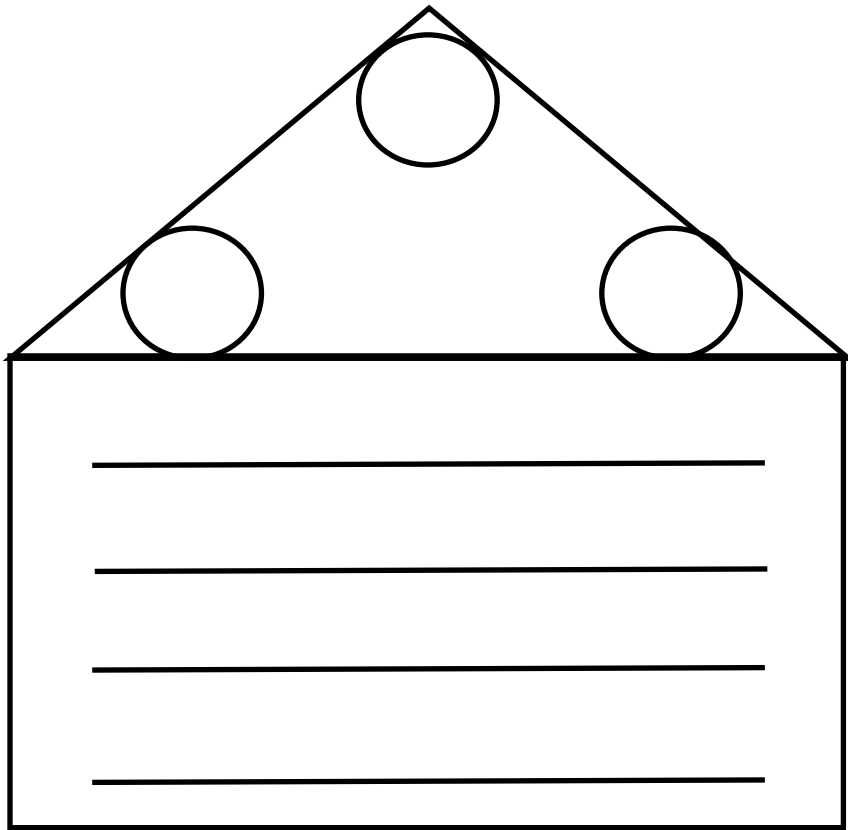
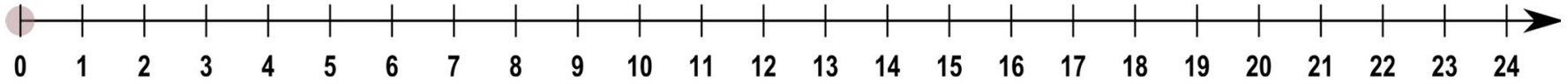
F.  
Tod had \$95.  
He spent \$10.  
What did he have left?  
*Tod tenía \$95.*  
*Gastó \$10.*  
*¿Cuánto le sobró?*

G.  
Tod had \$47.  
He spent \$10.  
What did he have left?  
*Tod tenía \$47.*  
*Gastó \$10.*  
*¿Cuánto le sobró?*

H.  
Tod had \$62.  
He spent \$10.  
What did he have left?  
*Tod tenía \$62.*  
*Gastó \$10.*  
*¿Cuánto le sobró?*

I.  
Tod had \$36.  
He spent \$10.  
What did he have left?  
*Tod tenía \$36.*  
*Gastó \$10.*  
*¿Cuánto le sobró?*





Tens	Ones



Tens	Ones

**J.**

Use the following numbers to make a fact family.

2, 7, 9

*Usa los números siguientes para hacer una familia de hechos.*

2, 7, 9

**K.**

Use the following numbers to make a fact family.

7, 3, 10

*Usa los números siguientes para hacer una familia de hechos.*

7, 3, 10

**L.**

Use the following number to make a fact family.

6, 9, 15

*Usa los números siguientes para hacer una familia de hechos.*

6, 9, 15

**M.**

The eagle caught 12 trout and 10 perch before he flew away. How many fish did he catch?

*El águila atrapó 12 truchas y 10 salmones antes de irse volando. ¿Cuántos peces atrapó?*

**N.**

15 colorful fish swam in the coral reef. 9 darted away. How many fish were left?

*15 peces de colores nadan en el coral del arrecife. 9 se van huyendo. ¿Cuántos peces se quedaron?*

**O.**

19 tadpoles swam near the shore. An egret ate 9 of them. How many tadpoles were left?

*19 renacuajos nadan cerca de la orilla. Una garza se come 9 de ellos. ¿Cuántos renacuajos quedan?*

**P.** Look at this number sentence.

$$8 + 7 + 2 = 17$$

Which numbers make 10?

*Mira esta oración numérica.*

$$8 + 7 + 2 = 17$$

*¿Qué números hacen 10?*

**Q.** Look at this number sentence.

$$1 + 9 + 3 = 13$$

Which numbers make 10?

*Mira esta oración numérica.*

$$1 + 9 + 3 = 13$$

*¿Qué números hacen 10?*

**R** Look at this number sentence.

$$1 + 7 + 3 = 11$$

Which numbers make 10?

*Mira esta oración numérica.*

$$1 + 7 + 3 = 11$$

*¿Qué números hacen 10?*

Tens	Ones

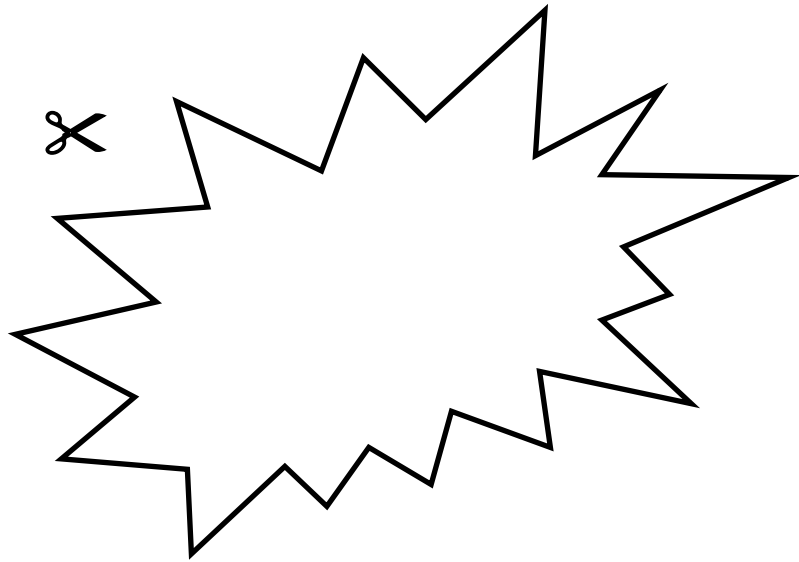
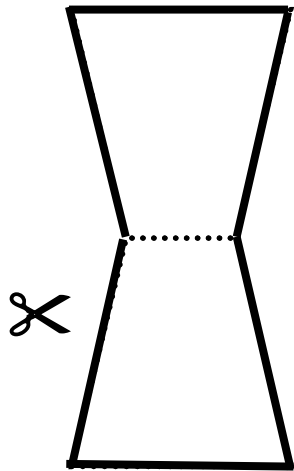
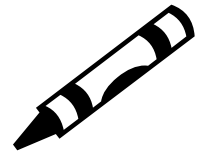
Tens	Ones



Tens	Ones

Tens	Ones

# Family Fun Game - Unit 3/ Unidad 3



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



## Generic Family Fun Game Board

### Materials Generic to All Units:

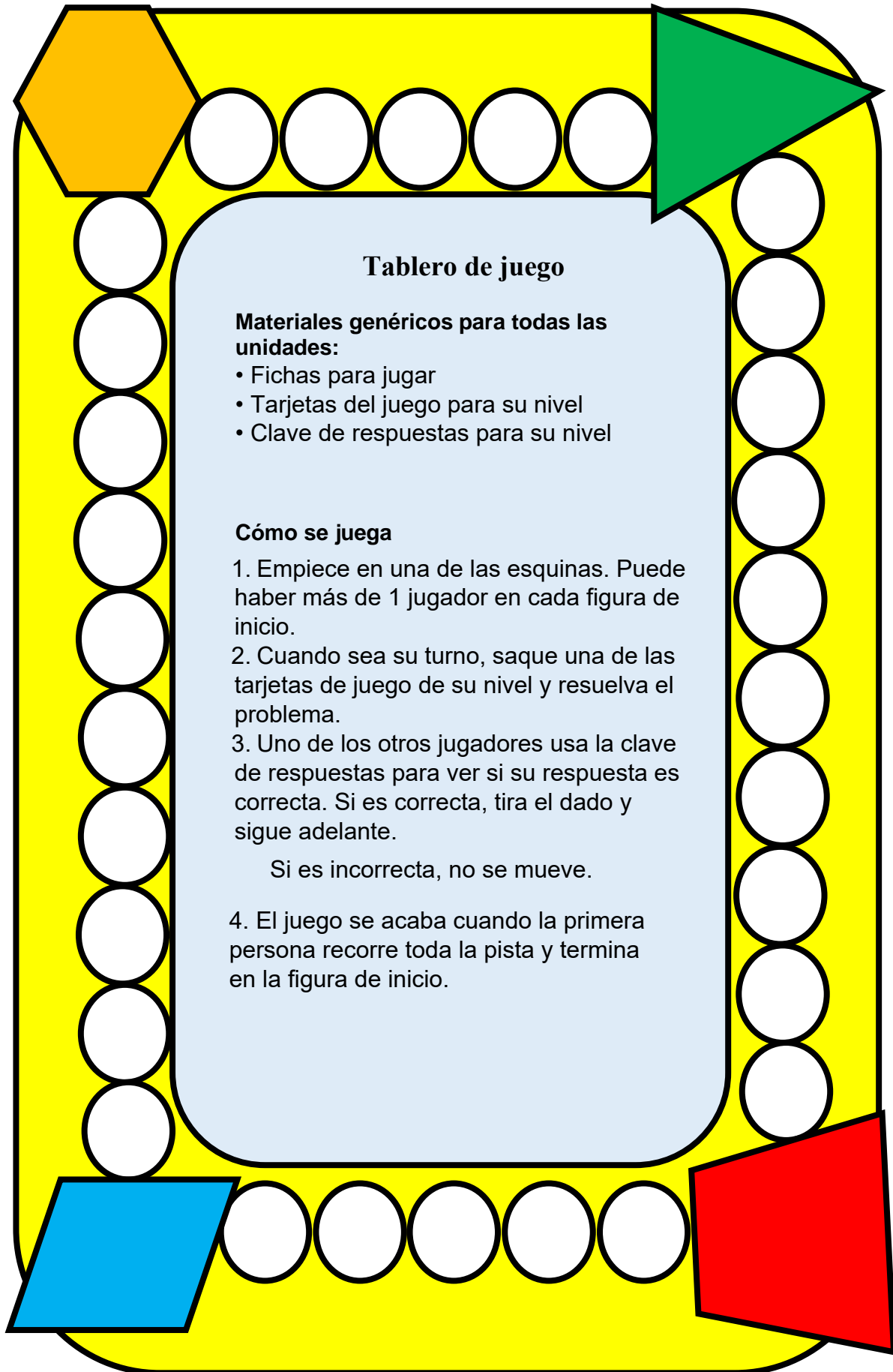
- Game Markers
- Game Cards for your Level
- Answer Key for your Level

### Playing the Game

1. Begin in one of the corner shapes. There may be more than 1 player in each starting shape. Remember where you started.
2. On your turn, draw one of your level game cards and work the problem.
3. One of the other players uses the Answer Key to check your answer. If correct, roll the die and move ahead.

If incorrect, do not move.

4. Game is over when the first person runs the entire track, ending back on the starting shape.



## Tablero de juego

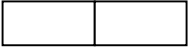
### Materiales genéricos para todas las unidades:

- Fichas para jugar
- Tarjetas del juego para su nivel
- Clave de respuestas para su nivel

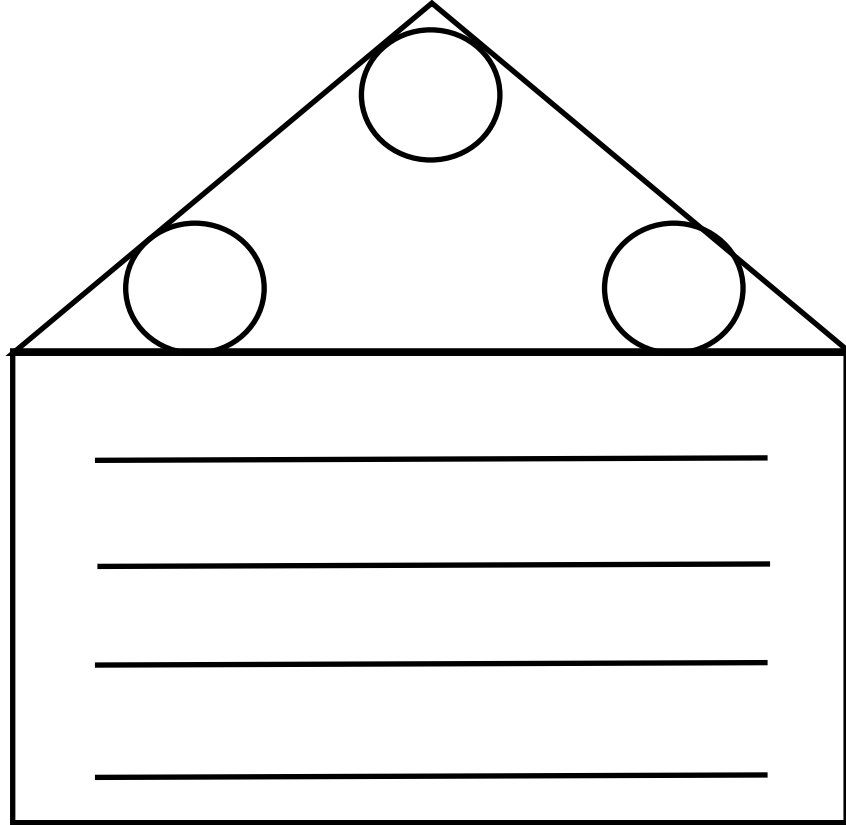
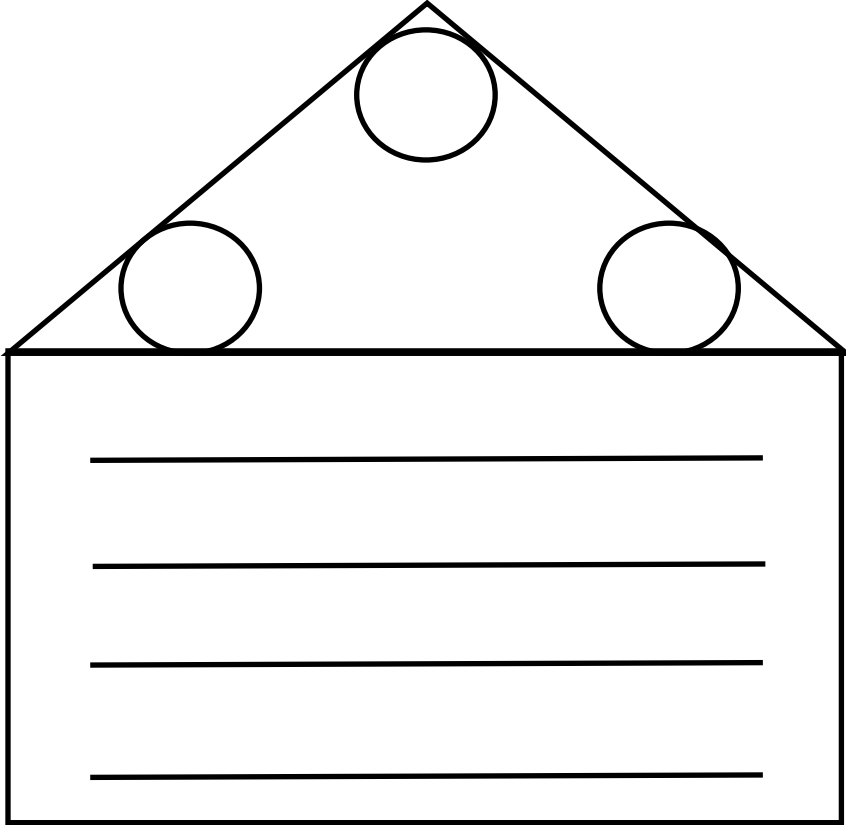
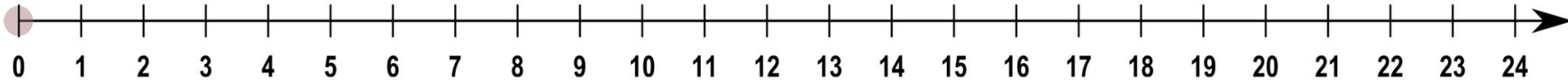
### Cómo se juega

1. Empiece en una de las esquinas. Puede haber más de 1 jugador en cada figura de inicio.
2. Cuando sea su turno, saque una de las tarjetas de juego de su nivel y resuelva el problema.
3. Uno de los otros jugadores usa la clave de respuestas para ver si su respuesta es correcta. Si es correcta, tira el dado y sigue adelante.  
Si es incorrecta, no se mueve.
4. El juego se acaba cuando la primera persona recorre toda la pista y termina en la figura de inicio.



<p><b>A.</b></p> <p>Use the following numbers to make a fact family.</p> <p><i>Usa los números siguientes para hacer una familia de hechos (fact family)</i></p> <p>7, 6, 13</p>	<p><b>B.</b></p> <p>Use the following numbers to make a fact family.</p> <p><i>Usa los números siguientes para hacer una familia de hechos (fact family)</i></p> <p>5, 8, 13</p>	<p><b>C.</b></p> <p>Use the following numbers to make a fact family.</p> <p><i>Usa los números siguientes para hacer una familia de hechos (fact family)</i></p> <p>7, 9, 16</p>
<p><b>D.</b> Look at this number sentence.</p> <p><b><math>4 + 8 + 2 = 14</math></b></p> <p>Which numbers make 10?</p> <p><i>Mira esta oración numérica.</i></p> <p><b><math>4 + 8 + 2 = 14</math></b></p> <p><i>¿Qué números hacen 10?</i></p>	<p><b>E.</b> Look at this number sentence.</p> <p><b><math>3 + 8 + 7 = 18</math></b></p> <p>Which numbers make 10?</p> <p><i>Mira esta oración numérica.</i></p> <p><b><math>3 + 8 + 7 = 18</math></b></p> <p><i>¿Qué números hacen 10?</i></p>	<p><b>F.</b> Look at this number sentence.</p> <p><b><math>5 + 8 + 5 = 18</math></b></p> <p>Which numbers make 10?</p> <p><i>Mira esta oración numérica.</i></p> <p><b><math>5 + 8 + 5 = 18</math></b></p> <p><i>¿Qué números hacen 10?</i></p>
<p><b>G.</b></p> <p>Sue read 14 picture books at school. She read 5 more books at home. How many books did she read?</p> <p><i>Sara leyó 14 libros de dibujos en la escuela. Leyó unos 5 más en casa.</i></p> <p><i>¿Cuántos libros leyó?</i></p>	<p><b>H.</b></p> <p>Gary picked up 13 rocks. Eddie picked up 9 rocks. How many fewer rocks did Eddie pick up?</p> <p><i>Gary recogió 13 piedras. Eddie recogió 9 piedras.</i></p> <p><i>¿Cuántas piedras menos recogió Eddie?</i></p>	<p><b>I.</b></p> <div style="text-align: center;">  </div> <p>How do you know these fair shares are halves?</p> <p><i>¿Cómo sabes que estas partes son mitades?</i></p>





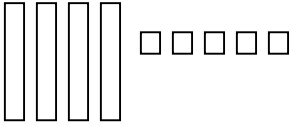
Tens	Ones



Tens	Ones

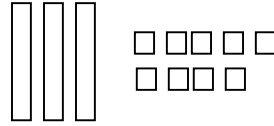


**J.**  
What is the value of the  
base ten blocks?



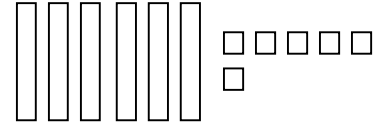
*¿Cuál es el valor de los  
bloques de base diez?*

**K.**  
What is the value of the  
base ten blocks?



*¿Cuál es el valor de los  
bloques de base diez?*

**L.**  
What is the value of the  
base ten blocks?



*¿Cuál es el valor de los  
bloques de base diez?*

**M.**

$$23 - 18$$

**N.**

$$41 - 29$$

**O.**

$$63 - 17$$

**P.**  
Ally had 23 fewer cupcakes  
than Mary had. If Mary had  
56 cupcakes, how many did  
Ally have?

*Ally tenía 23 pastelitos menos  
que María. Si María tenía 56  
pastelitos, ¿cuántos tenía  
Ally?*

**Q.**  
Sarah took 48 cupcakes to the  
party. 36 of them were eaten.  
How many cupcakes were  
not eaten?

*Sarah llevó 48 pastelitos a la  
fiesta. Se comieron 36.  
¿Cuántos pastelitos no se  
comieron?*

**R.**  
Merel baked 41 cookies. Her  
children ate 24 of them. How  
many cookies were left?

*Merel horneó 41 galletas. Sus  
hijos se comieron 24.  
¿Cuántas galletas quedaron?*

Tens	Ones

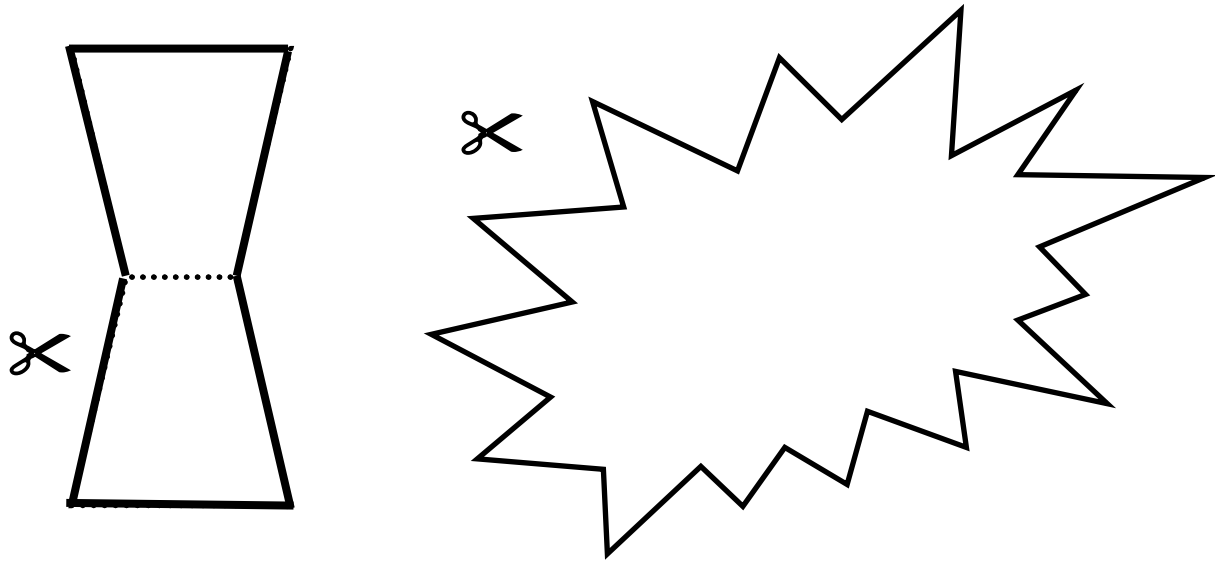
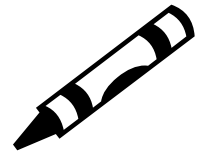
Tens	Ones



Tens	Ones

Tens	Ones

# Family Fun Game - Unit 4/ Unidad 4



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



A.

Use the following numbers to make a fact family.

*Usa los siguientes números para hacer una familia de hechos.*

**8, 7, 15**

B.

Use the following numbers to make a fact family.

*Usa los siguientes números para hacer una familia de hechos.*

**5, 7, 12**

C.

Use the following numbers to make a fact family.

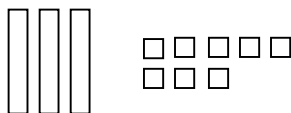
*Usa los siguientes números para hacer una familia de hechos.*

**8, 9, 17**

D.

What is the value of the base ten blocks?

*¿Cuál es el valor de los bloques de base diez?*

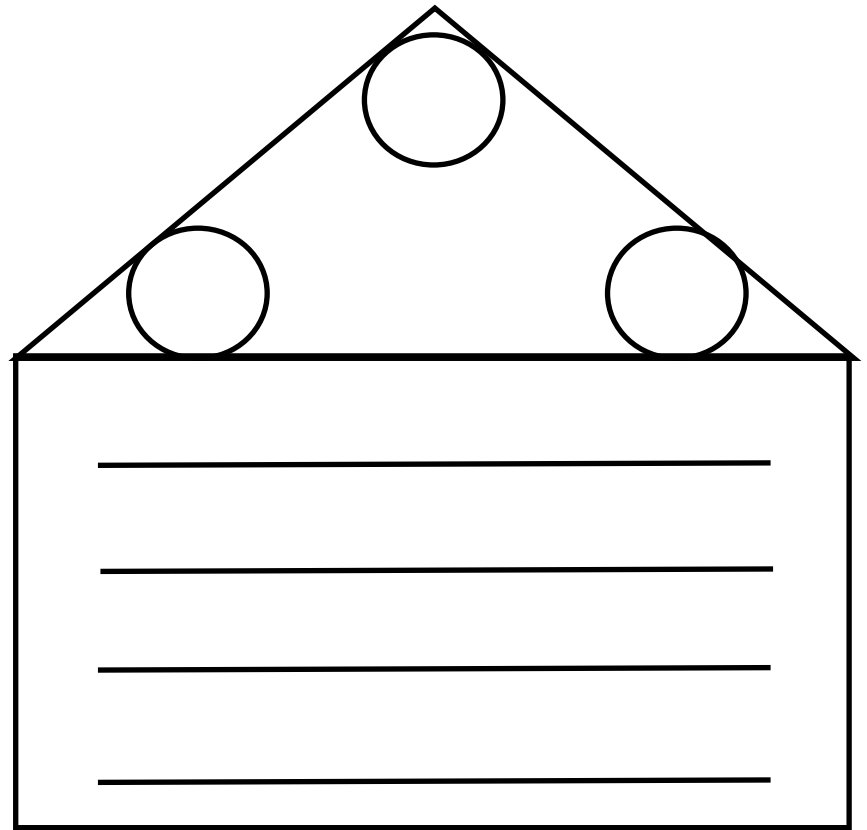
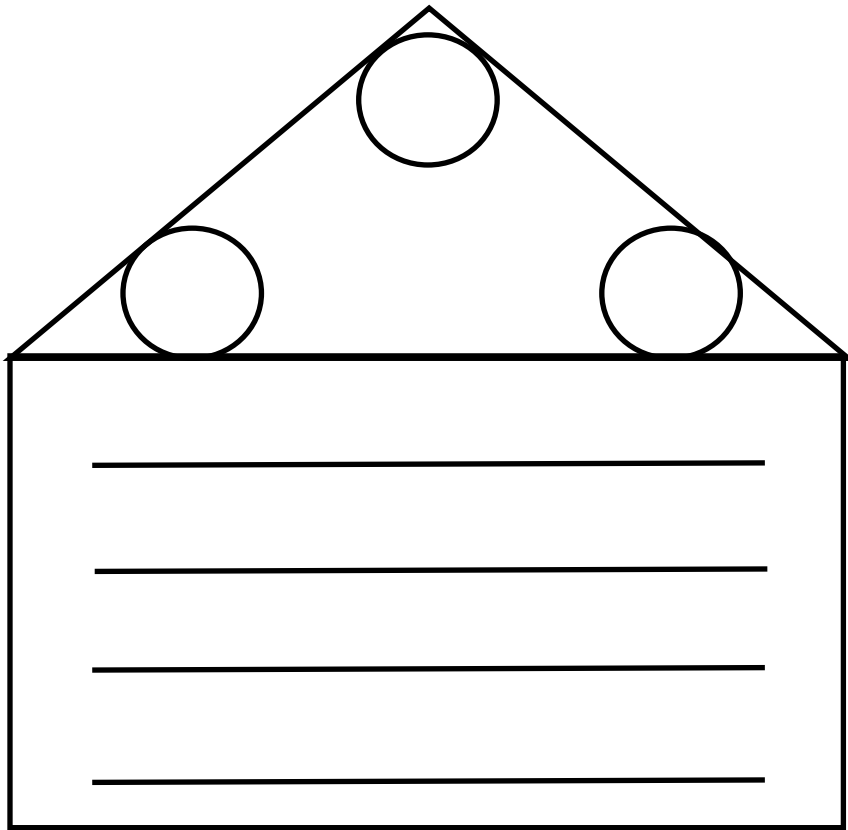
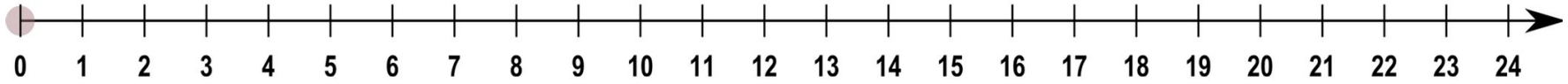


E.

$$51 - 28$$

F.

$$57 - 19$$





G.

$$55 - 38$$

H.

Look at this number sentence. Which numbers make ten?

*Mira esta oración numérica.*

*¿Qué números hacen 10?*

$$4 + 8 + 6 = 18$$

I.

Look at this number sentence. Which numbers make ten?

*Mira esta oración numérica.*

*¿Qué números hacen 10?*

$$3 + 5 + 7 = 15$$

J.

Compare

Path A is 6 inches long.

Path B is 9 inches long.

Which path is longer?

*Compara*

*La ruta A tiene 6 pulgadas de largo.*

*La ruta B tiene 9 pulgadas de largo.*

*¿Cuál ruta es más larga?*

K.

Compare

Path A is 12 inches long.

Path B is 14 inches long.

Which path is shorter?

*Compara*

*La ruta A tiene 12 pulgadas de largo.*

*La ruta B tiene 14 pulgadas de largo.*

*¿Cuál ruta es más corta?*

L.

Use comparison words to describe these lines.

Path A is 5 inches long.

Path B is 9 inches long.

*Utiliza palabras de comparación para describir estas líneas.*

*La ruta A tiene 5 pulgadas de largo.*

*La ruta B tiene 9 pulgadas de largo.*



Tens	Ones



Tens	Ones

**M.**

Mouse ate 43 jelly beans. His sister ate 6 more than Mouse ate. How many jelly beans did Mouse's sister eat?

*Mouse comió 43 jaleas. Su hermana comió 6 jaleas más que Mouse. ¿Cuántas jaleas se comió la hermana de Mouse?*

**N.**

62 big camels marched in a line. 27 small camels marched in a line. How many fewer small camels were there than large camels?

*62 camellos grandes caminaban en fila. 27 camellos pequeños caminaban en fila. ¿Cuántos camellos pequeños menos había comparado con los camellos grandes?*

**O.**

Solve  
Camel walked 67 miles. Monkey walked 15 miles less than Camel. How many miles did Money walk?

*Resuelve  
El camello caminó 67 millas. El mono caminó 15 millas menos que el camello. ¿Cuántas millas caminó el mono?*

**P.**

Crow dropped 32 pebbles into the glass of water. He needed to drop 50 pebbles into the glass. How many more pebbles must he drop?

*El cuervo dejó caer 32 piedras en el vaso de agua. Necesitaba dejar caer 50 piedras en el vaso. ¿Cuántas piedras más debe dejar caer?*

**Q.**

Monkey ate 15 bananas. That was 16 less than his friend Mouse. How many bananas did Mouse eat?

*El mono comió 15 bananas. Eso fue 16 menos que su amigo Mouse. ¿Cuántas bananas comió Mouse?*

**R.**

Mouse ran up the banister 16 times. Rat ran up the banister 12 more times than Mouse. How many times did Rat run up the banister?

*Mouse subió corriendo el pasamanos 16 veces. Rat subió corriendo el pasamanos 12 veces más que Mouse. ¿Cuántas veces subió corriendo Rat el pasamanos?*

Tens	Ones

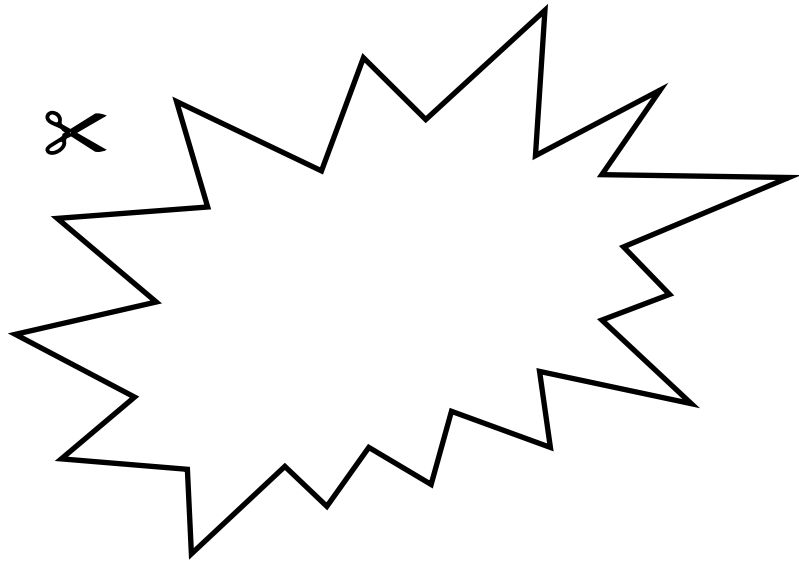
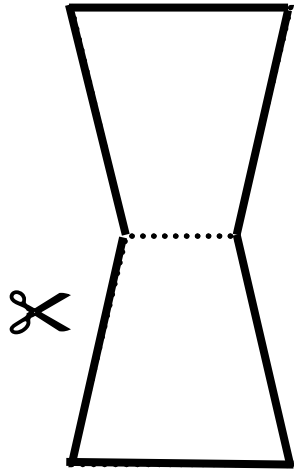
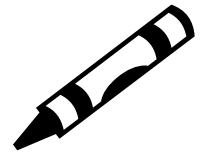
Tens	Ones



Tens	Ones

Tens	Ones

# Family Fun Game - Unit 5/ Unidad 5



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



## Generic Family Fun Game Board

### Materials Generic to All Units:

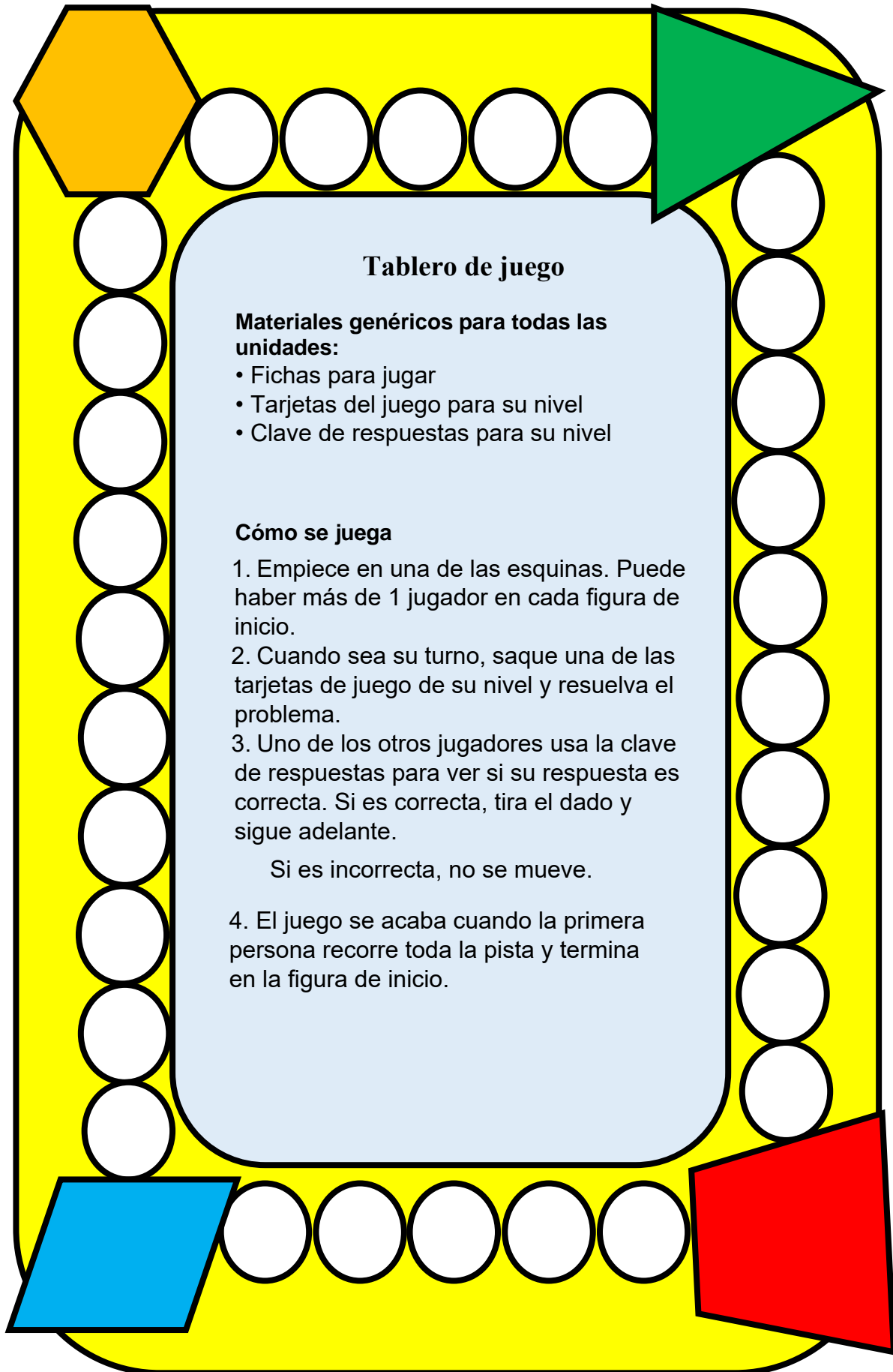
- Game Markers
- Game Cards for your Level
- Answer Key for your Level

### Playing the Game

1. Begin in one of the corner shapes. There may be more than 1 player in each starting shape. Remember where you started.
2. On your turn, draw one of your level game cards and work the problem.
3. One of the other players uses the Answer Key to check your answer. If correct, roll the die and move ahead.

If incorrect, do not move.

4. Game is over when the first person runs the entire track, ending back on the starting shape.



## Tablero de juego

### Materiales genéricos para todas las unidades:

- Fichas para jugar
- Tarjetas del juego para su nivel
- Clave de respuestas para su nivel

### Cómo se juega

1. Empiece en una de las esquinas. Puede haber más de 1 jugador en cada figura de inicio.
2. Cuando sea su turno, saque una de las tarjetas de juego de su nivel y resuelva el problema.
3. Uno de los otros jugadores usa la clave de respuestas para ver si su respuesta es correcta. Si es correcta, tira el dado y sigue adelante.  
Si es incorrecta, no se mueve.
4. El juego se acaba cuando la primera persona recorre toda la pista y termina en la figura de inicio.



A. Look at this number sentence.  
Which numbers make 10?

*Mira esta oración numérica.  
¿Qué números hacen 10?*

$$4 + 2 + 8 = 14$$

B. Look at this number sentence.  
Which numbers make 10?

*Mira esta oración numérica.  
¿Qué números hacen 10?*

$$1 + 5 + 9 = 15$$

C. Use the following numbers to make a fact family.

*Usa los siguientes números para hacer una familia de hechos.*

**7, 9, 16**

D. Use the following numbers to make a fact family.

*Usa los siguientes números para hacer una familia de hechos.*

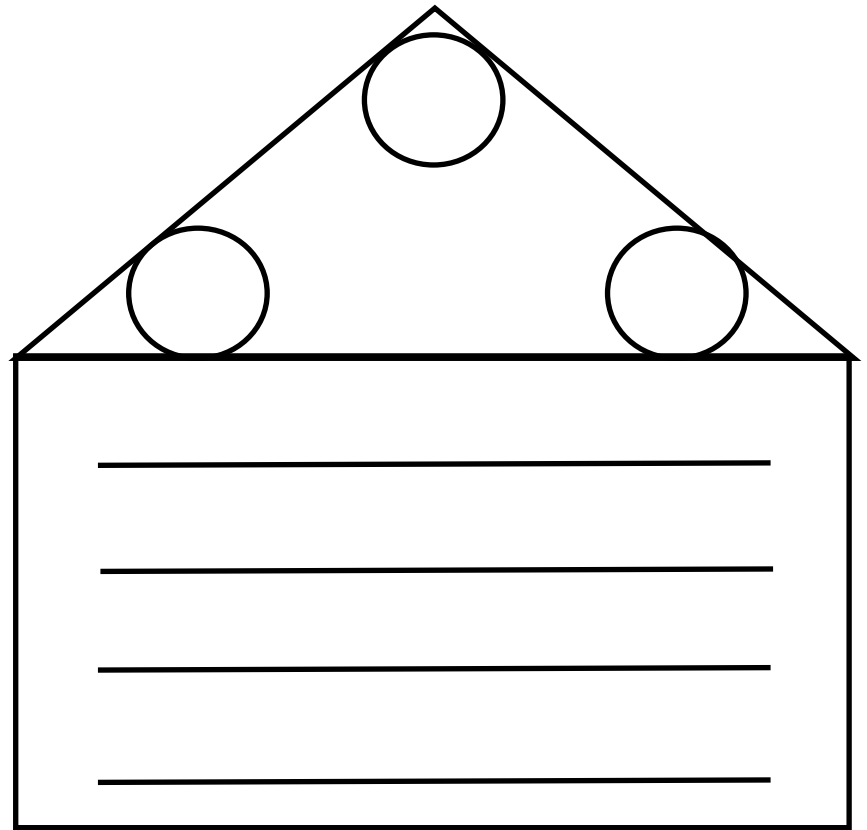
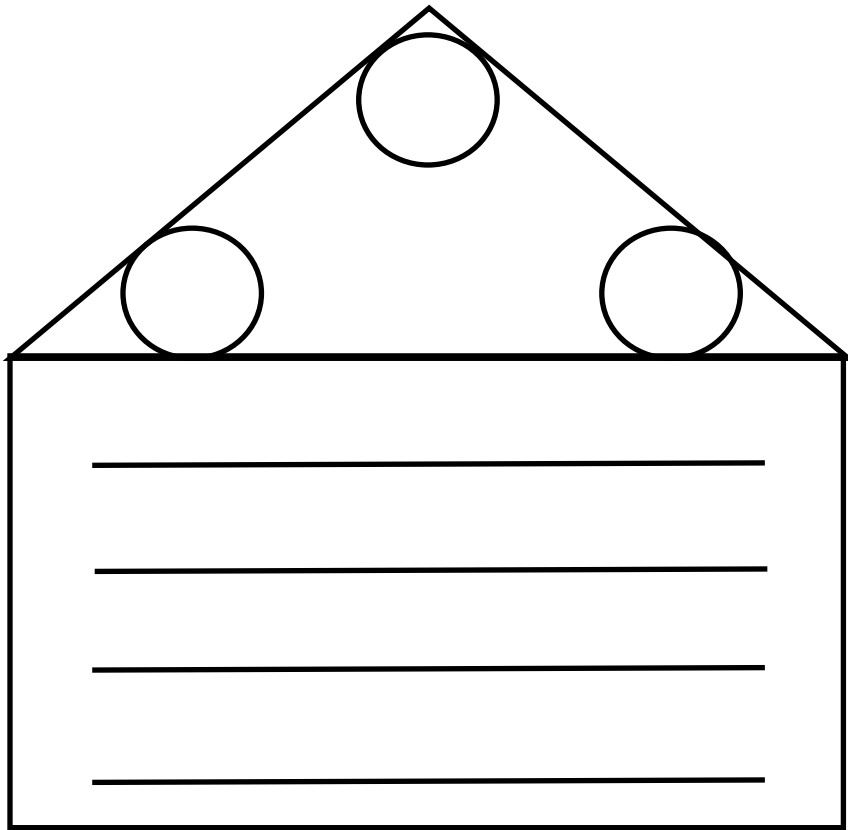
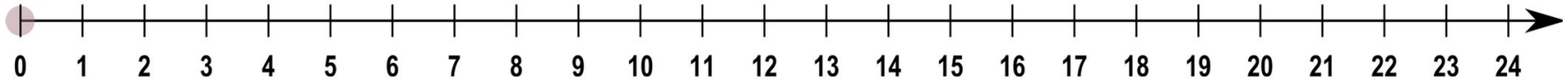
**8, 7, 15**

E. Gary walked 12 miles last week. He walked 11 more miles this week. How many miles did Gary walk in both weeks?

*Gary caminó 12 millas la semana pasada. Caminó 11 millas más esta semana. ¿Cuántas millas caminó Gary las dos semanas?*

F. David read 15 books in 3 weeks. He read 9 more books this week. How many books did David read?

*David leyó 15 libros en 3 semanas. Leyó 9 libros más esta semana. ¿Cuántos libros leyó?*







G.

$$\square - 8 = 6$$

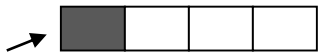
H.

$$\square - 8 = 9$$

I.

$$\square - 5 = 8$$

J.



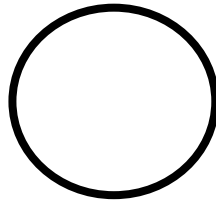
What do you call this fair share?

*¿Cómo llamas a esta parte igual?*

K.

Fair share the circle for yourself and 3 friends.

*Comparte el círculo igualmente entre tú y 3 amigos.*



L.

Ralph ate 9 cookies. That was 5 cookies more than Lucy ate.

How many cookies did Lucy eat?

*Ralph comió 9 galletas. Esto fue 9 galletas más que comió Lucy. ¿Cuántas galletas comió Lucy?*

Tens	Ones



Tens	Ones

**M.**

Katy walked 12 miles.  
She walked 8 more miles  
than Bob. How many  
miles did Bob walk?

*Katy caminó 12 millas.  
Caminó 8 millas más que  
Bob. ¿Cuántas millas  
caminó Bob?*

**N.**

Solve  
*Resuelve*

$$14 - 7$$

**O.**

Solve  
*Resuelve*

$$24 - 7$$

**P.**

Solve  
*Resuelve*

$$27 + 38$$

**Q.**

Solve  
*Resuelve*

$$43 + 37$$

**R.**

Solve  
*Resuelve*

$$39 + 46$$

Tens	Ones



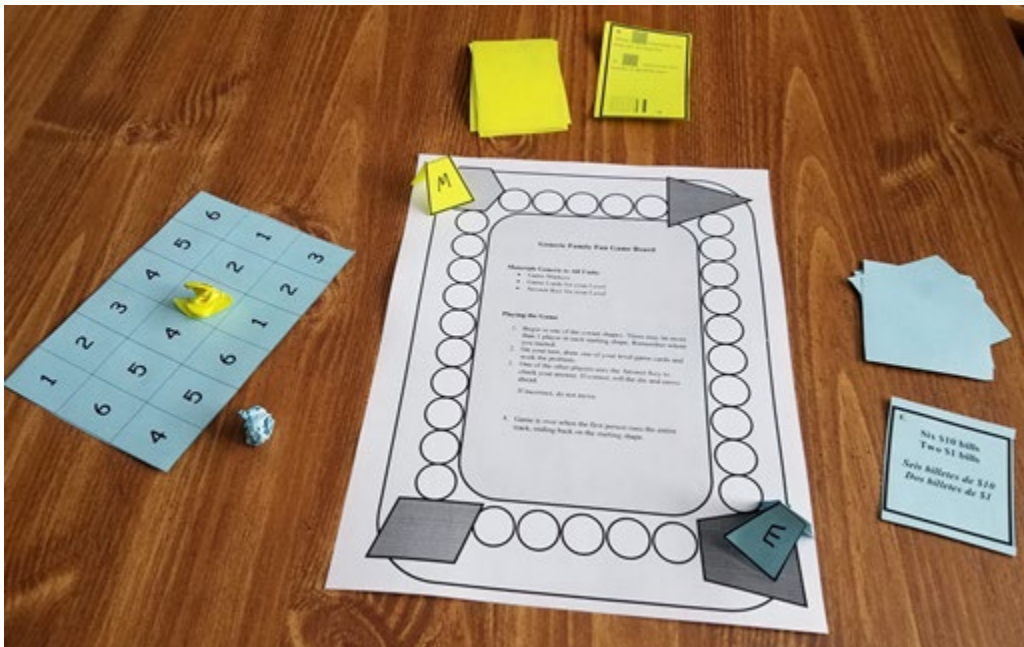
Tens	Ones

Tens	Ones

Tens	Ones

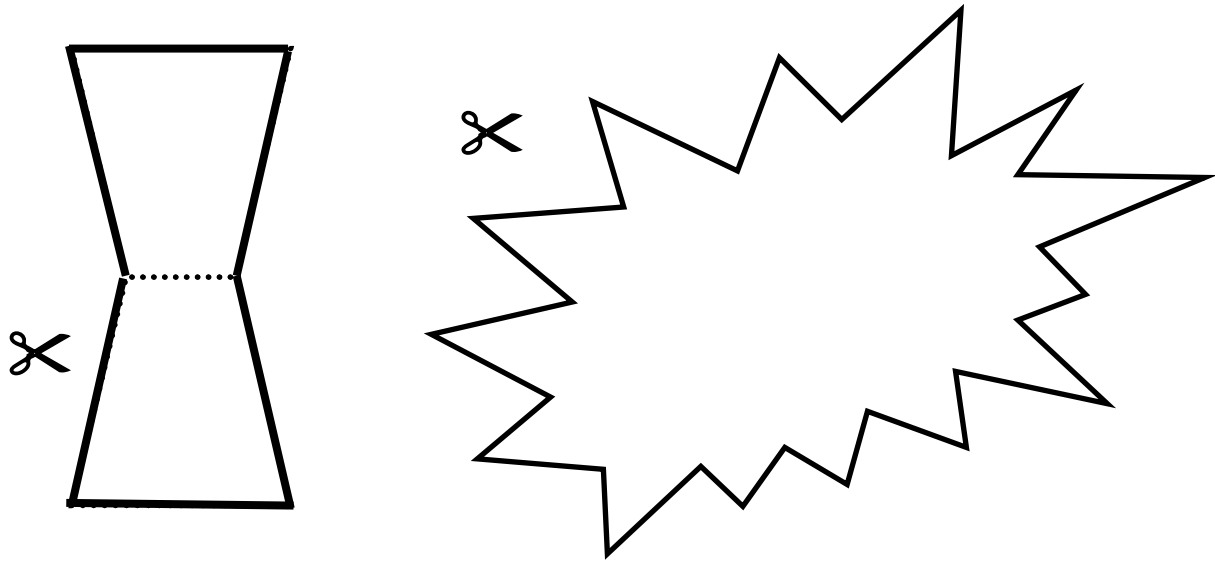
# Family Fun Game

## *Juego de diversión familiar*



**WHALE Pack**

# Family Fun Game - Unit 1/ Unidad 1



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



## Generic Family Fun Game Board

### Materials Generic to All Units:

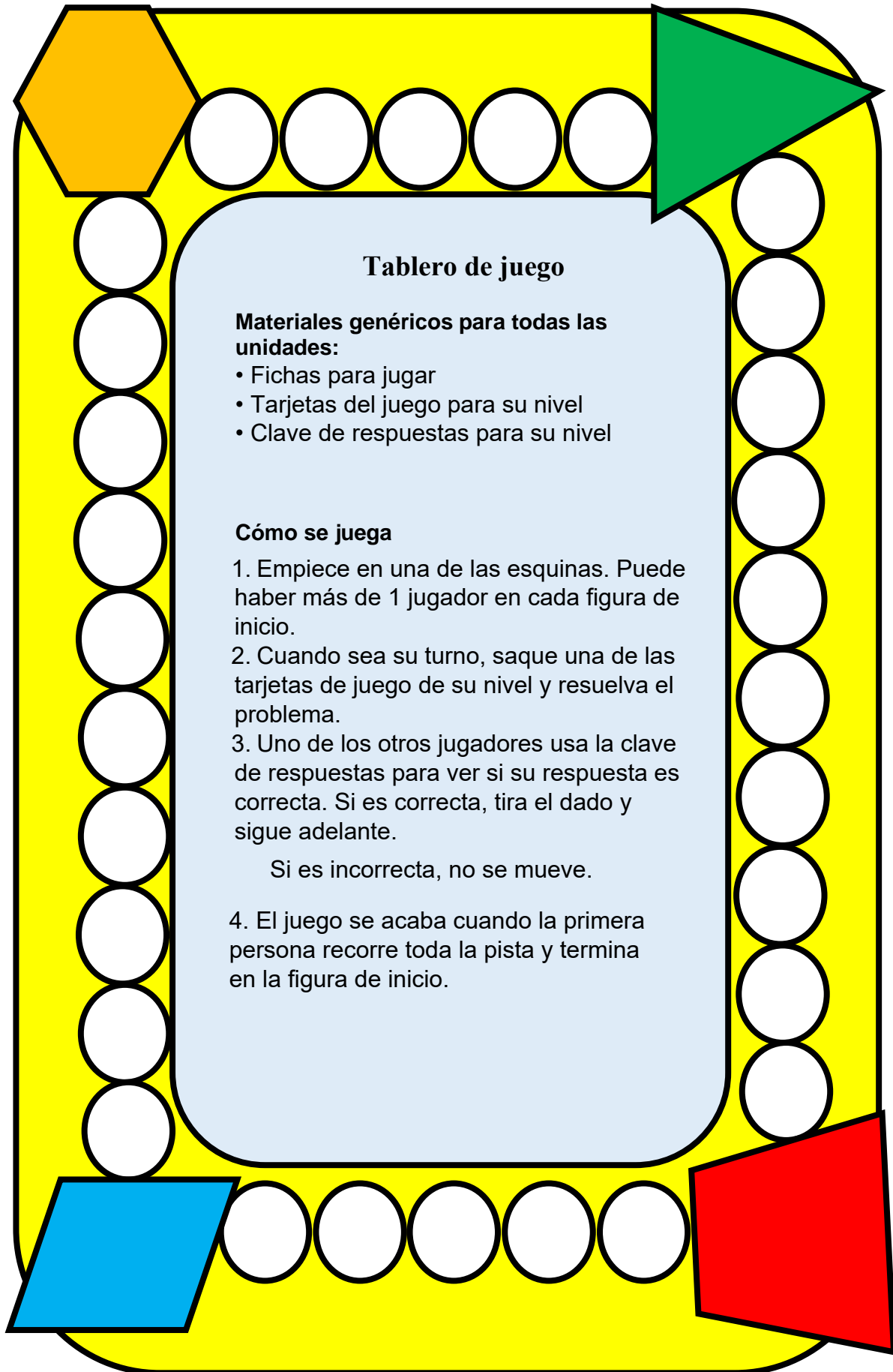
- Game Markers
- Game Cards for your Level
- Answer Key for your Level

### Playing the Game

1. Begin in one of the corner shapes. There may be more than 1 player in each starting shape. Remember where you started.
2. On your turn, draw one of your level game cards and work the problem.
3. One of the other players uses the Answer Key to check your answer. If correct, roll the die and move ahead.

If incorrect, do not move.

4. Game is over when the first person runs the entire track, ending back on the starting shape.



## Tablero de juego

### Materiales genéricos para todas las unidades:

- Fichas para jugar
- Tarjetas del juego para su nivel
- Clave de respuestas para su nivel

### Cómo se juega

1. Empiece en una de las esquinas. Puede haber más de 1 jugador en cada figura de inicio.
2. Cuando sea su turno, saque una de las tarjetas de juego de su nivel y resuelva el problema.
3. Uno de los otros jugadores usa la clave de respuestas para ver si su respuesta es correcta. Si es correcta, tira el dado y sigue adelante.  
Si es incorrecta, no se mueve.
4. El juego se acaba cuando la primera persona recorre toda la pista y termina en la figura de inicio.





A.

$$18 \div 3 = \square$$

B.

$$12 \div \square = 4$$

C.

$$3 \times 5 = \square$$

D.

$$32 \div 4 = \square$$

E.

$$36 \div \square = 4$$

F.

$$4 \times 7 = \square$$

G.

Write the fraction that best represents the shaded portion of this bar.

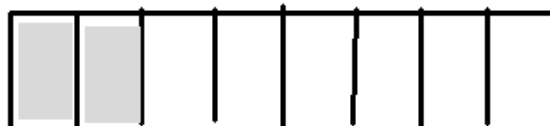
*Escribe la fracción que mejor represente la porción sombreada de esta barra.*



H.

Write the fraction that best represents the shaded portion of this bar.

*Escribe la fracción que mejor represente la porción sombreada de esta barra.*





I.

Write the fraction that best represents the shaded portion of this bar.

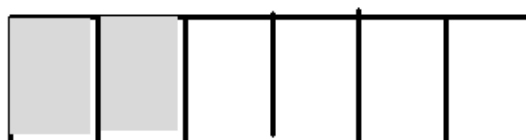
*Escribe la fracción que mejor represente la porción sombreada de esta barra.*



J.

Write the fraction that best represents the shaded portion of this bar.

*Escribe la fracción que mejor represente la porción sombreada de esta barra.*



K.

$$3 \times \square = 30$$

L.

$$24 \div \square = 8$$

M.

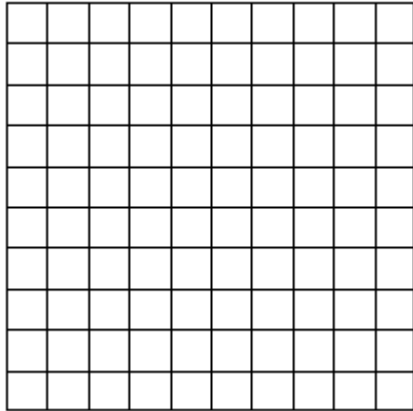
$$3 \times \square = 27$$

N

$$3 \times \square = 3$$



When this block with 100 squares represents 1... / *Cuando este bloque de 100 cuadrados representa 1...*



... then this part of the block, with 10 squares, equals... / *entonces esta parte del bloque, con 10 cuadrados, es igual a...*



$$= \frac{10}{100} = \frac{1}{10}$$

Written as decimals.../ *Escrito como decimales...*

$$\frac{10}{100} = \boxed{0.10}$$

$$\frac{1}{10} = \boxed{0.1}$$

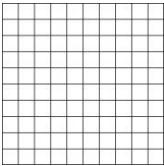
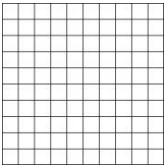
... and this part of the block, with 1 square, equals... / *y esta parte del bloque, con 1 cuadrado, es igual a...*

$$\square = \frac{1}{100}$$


Written as a decimal.../ *Escrito como decimal...*

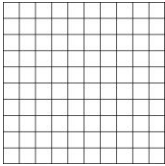
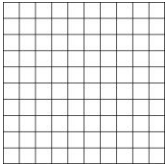
$$\frac{1}{100} = \boxed{0.01}$$



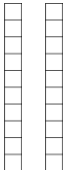
O.  
When  represents one  
*Cuando*  *representa uno*

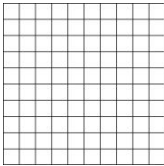
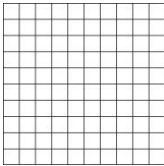
write the decimal for:  $\frac{15}{100}$   
*escribe el decimal para:*  $\frac{15}{100}$



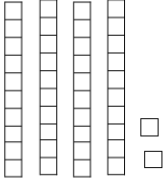
P.  
When  represents one  
*Cuando*  *representa uno*

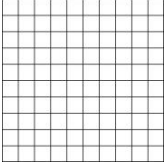
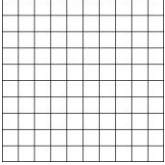
write the decimal for:  $\frac{2}{10}$   
*escribe el decimal para:*  $\frac{2}{10}$




Q.  
When  represents one  
*Cuando*  *representa uno*

write the decimal for:  $\frac{42}{100}$   
*escribe el decimal para:*  $\frac{42}{100}$



R.  
When  represents one  
*Cuando*  *representa uno*

write the decimal for:  $\frac{5}{100}$   
*escribe el decimal para:*  $\frac{5}{100}$





ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$



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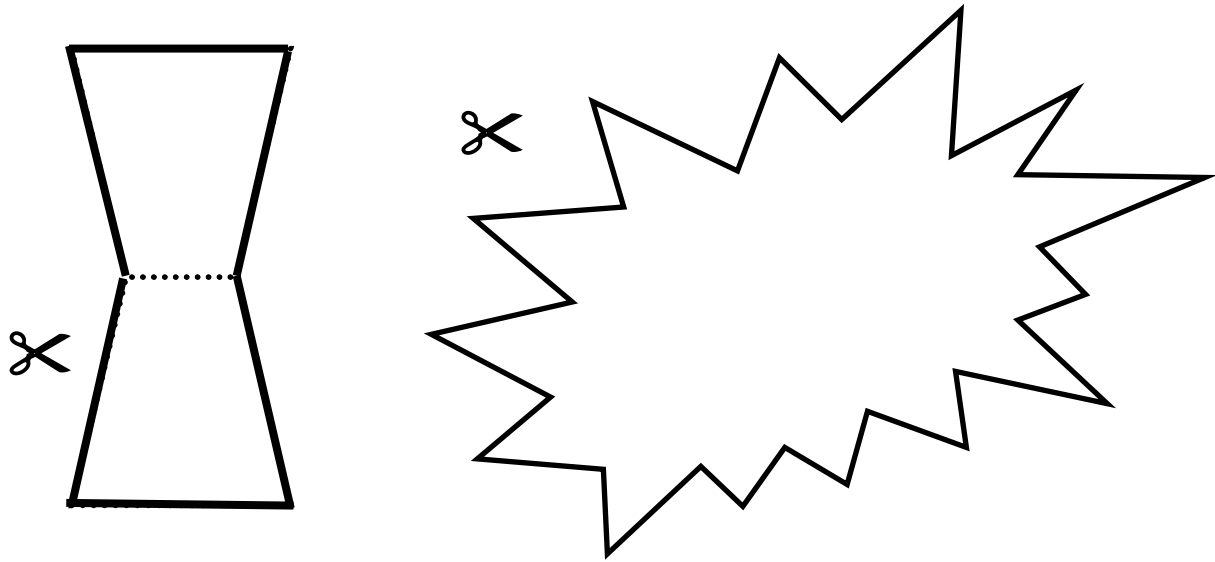
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# Family Fun Game - Unit 2/ Unidad 2

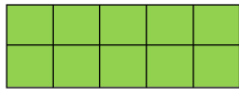


1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



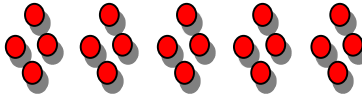
A

Write the number sentences for the fact family for this area model array.



*Escribe las oraciones numéricas para la familia de operaciones para este modelo de conjunto.*

B



*What number sentence does this picture model?  
¿Qué oración numérica modela esta representación?*

C

What number sentence does this picture model?  
*¿Qué oración numérica modela esta representación?*



D

$$\square \div 7 = 6$$

E

$$48 \div \square = 6$$

F

$$\square \div 9 = 5$$

G

Kayla has 15 buttons. She wants to sew 3 buttons on each of her blouses. How many blouses does she have?

*Kayla tiene 15 botones. Quiere coser 3 botones en cada blusa que tiene. ¿Cuántas blusas tiene?*

H

Martin has \$16. He wants to spend equally on 4 friends. How much will he spend on each friend?

*Martín tiene \$16. Quiere gastarlo igualmente entre sus 4 amigos. ¿Cuánto puede gastar en cada amigo?*


I

20 ants were marching on the sidewalk. They were in 5 equal rows. How many were in each row?

*20 hormigas caminaban en la acera. Había 5 filas iguales. ¿Cuántas hormigas había en cada fila?*



Family Fun Game Arrays

Whale 







J

Write this fraction as a decimal.

*Escribe esta fracción como decimal.*

$$\frac{76}{100}$$

K

Write this fraction as a decimal.

*Escribe esta fracción como decimal.*

$$\frac{8}{100}$$

L

Write this fraction as a decimal.

*Escribe esta fracción como decimal.*

$$\frac{19}{100}$$

M

What fraction best represents the shaded portion of the bar.

*¿Qué fracción mejor representa la porción sombreada de la barra?*



N

What fraction best represents the shaded portion of the bar.

*¿Qué fracción mejor representa la porción sombreada de la barra?*



O

Which fraction best represents the shaded portion of the bar.

*¿Qué fracción mejor representa la porción sombreada de la barra?*



P

Write the decimals from smallest to largest.

*Escribe los decimales de más pequeño a más grande.*

0.5    0.33

Q

Which decimal is closest to 12?

*¿Cuál de los decimales es más cerca a 12?*

11.9    11.99

R

Who ate more pizza?  
Liz – 0.35 of a pizza  
Drew – 0.9 of a pizza

*¿Quién comió más pizza?*

*Liz – 0.35 de una pizza  
Drew – 0.9 de una pizza*

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$



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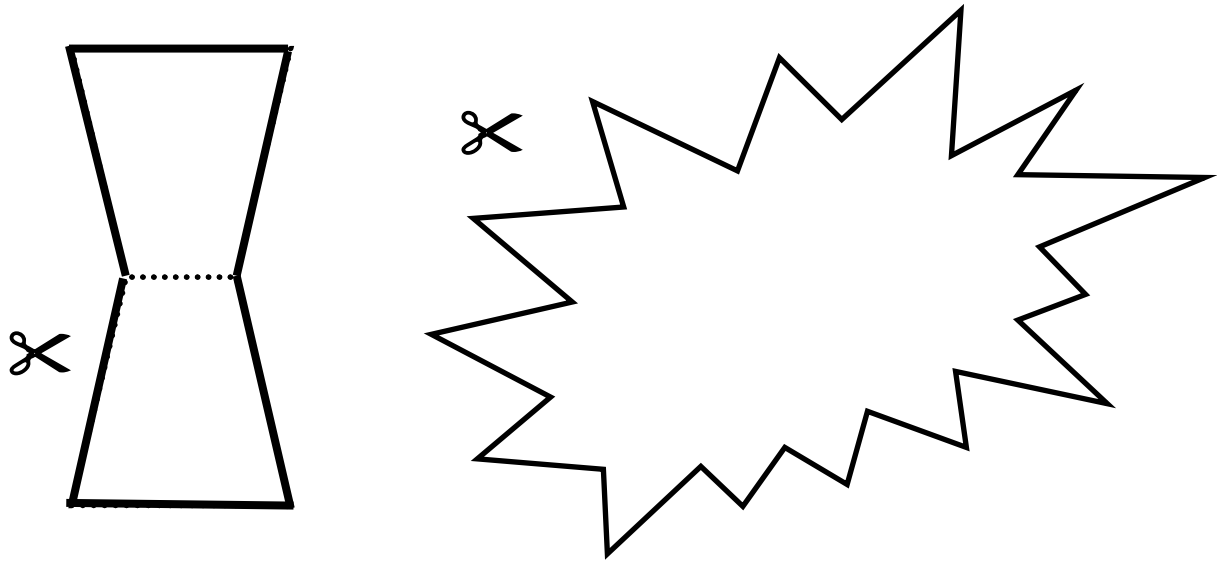
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# Family Fun Game - Unit 3/ Unidad 3



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



## Generic Family Fun Game Board

### Materials Generic to All Units:

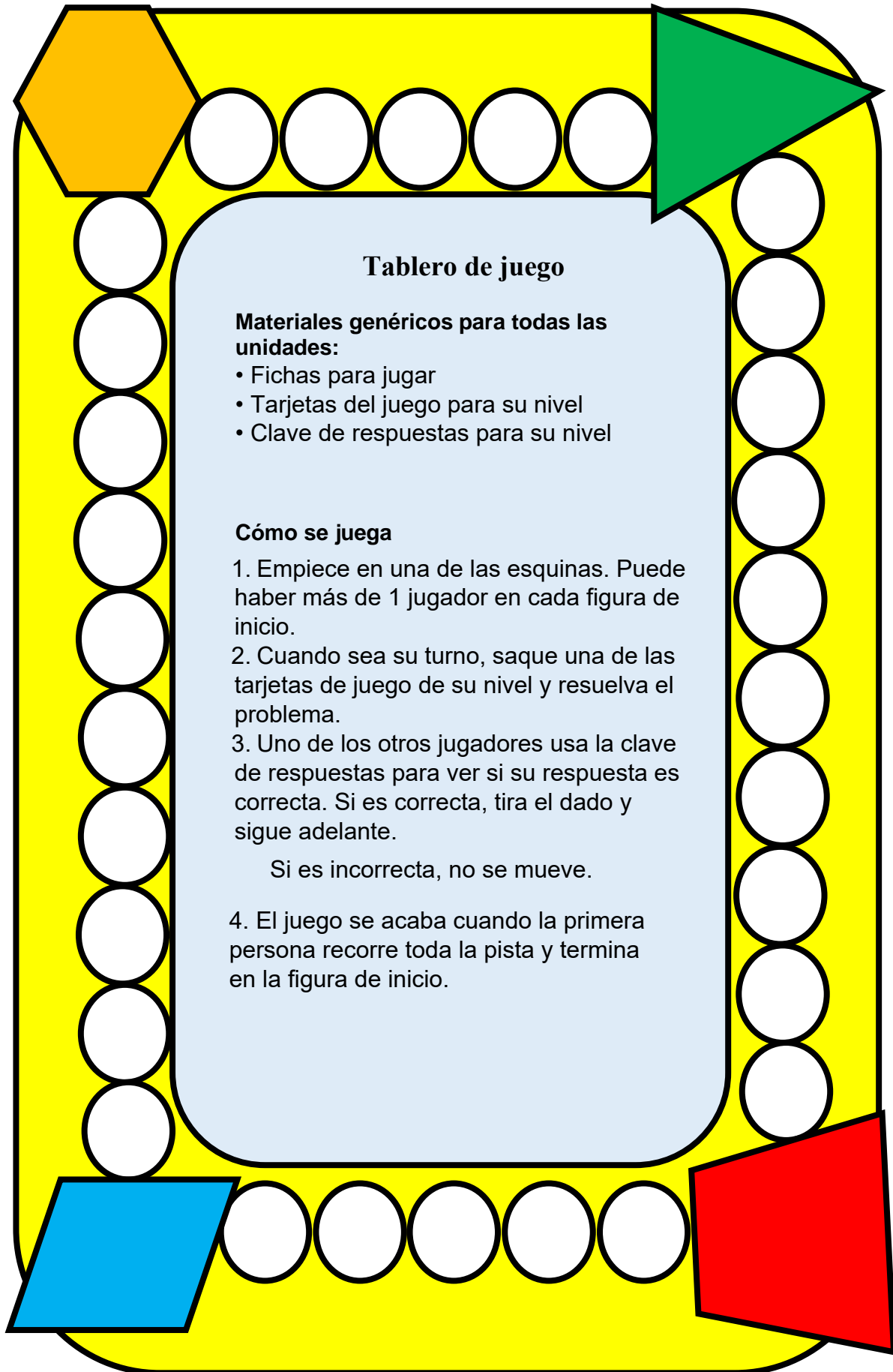
- Game Markers
- Game Cards for your Level
- Answer Key for your Level

### Playing the Game

1. Begin in one of the corner shapes. There may be more than 1 player in each starting shape. Remember where you started.
2. On your turn, draw one of your level game cards and work the problem.
3. One of the other players uses the Answer Key to check your answer. If correct, roll the die and move ahead.

If incorrect, do not move.

4. Game is over when the first person runs the entire track, ending back on the starting shape.



## Tablero de juego

### Materiales genéricos para todas las unidades:

- Fichas para jugar
- Tarjetas del juego para su nivel
- Clave de respuestas para su nivel

### Cómo se juega

1. Empiece en una de las esquinas. Puede haber más de 1 jugador en cada figura de inicio.
2. Cuando sea su turno, saque una de las tarjetas de juego de su nivel y resuelva el problema.
3. Uno de los otros jugadores usa la clave de respuestas para ver si su respuesta es correcta. Si es correcta, tira el dado y sigue adelante.  
Si es incorrecta, no se mueve.
4. El juego se acaba cuando la primera persona recorre toda la pista y termina en la figura de inicio.



**A.**  
Write the fraction as a decimal.

*Escribe la fracción como decimal.*

$$\frac{9}{10}$$

**B.**  
Write the fraction as a decimal.

*Escribe la fracción como decimal.*

$$\frac{6}{100}$$

**C.**  
Write the fraction as a decimal.

*Escribe la fracción como decimal.*

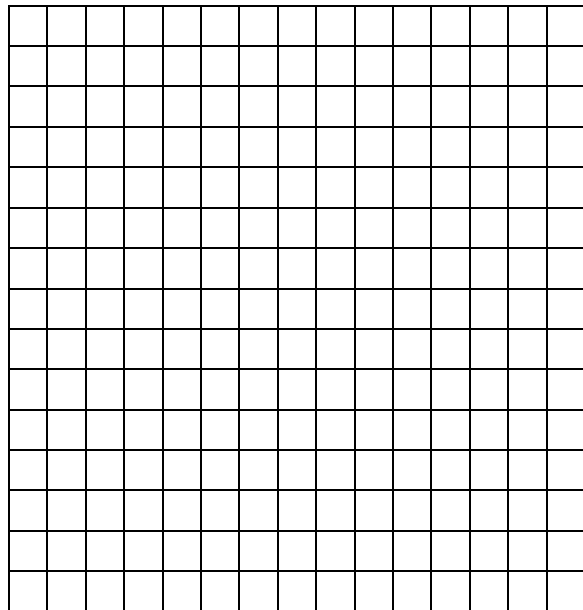
$$\frac{4}{10}$$

**D.**  
Represent  $13 \times 13$  using an array. Shade your answer on your grid paper.

*Representa  $13 \times 13$  usando un conjunto. Sombrea tu respuesta en tu papel de cuadrícula.*

Solve  $13 \times 13$  another way.

*Resuelve  $13 \times 13$  de otra manera.*





ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

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ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$



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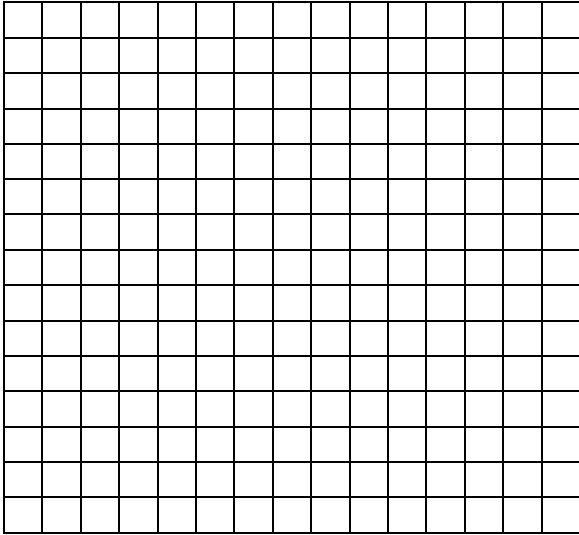


**E.**  
**Represent  $11 \times 13$  using an array. Shade your answer on your grid paper.**

*Representa  $11 \times 13$  usando un conjunto. Sombrea tu respuesta en tu papel de cuadrícula.*

**Solve  $11 \times 13$  another way.**

*Resuelve  $11 \times 13$  de otra manera.*

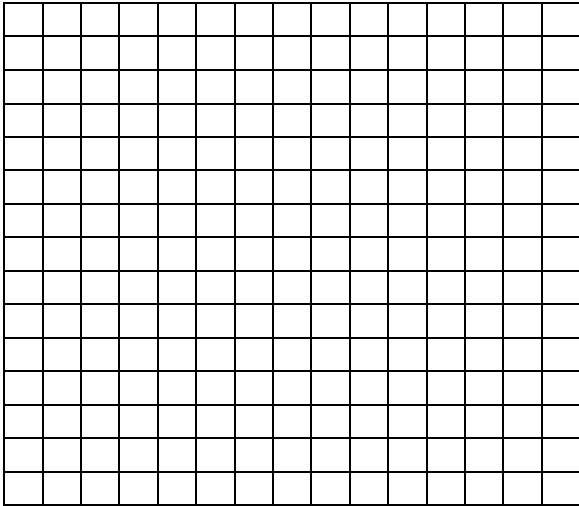


**F.**  
**Represent  $13 \times 15$  using an array. Shade your answer on your grid paper.**

*Representa  $13 \times 15$  usando un conjunto. Sombrea tu respuesta en tu papel de cuadrícula.*

**Solve  $13 \times 15$  another way.**

*Resuelve  $13 \times 15$  de otra manera.*





G.

Arrange these  
decimals smallest to  
largest:

0.45    0.75

*Arreglar los  
decimales de más  
pequeño a más  
grande.*

H.

Arrange these  
decimals largest to  
smallest:

0.56    0.7

*Arreglar los  
decimales de más  
pequeño a más  
grande.*

I.

Arrange these  
decimals smallest to  
largest:

0.9            0.08

*Arreglar los  
decimales de más  
pequeño a más  
grande.*

J.

Which fraction is  
closest to

$\frac{2}{3}$ ?

$\frac{4}{6}$              $\frac{1}{2}$

*¿Cuál fracción se  
aproxima más a*

$\frac{2}{3}$ ?

K.

Which fraction is  
closest to

$\frac{1}{8}$ ?

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

*¿Cuál fracción se  
aproxima más a*

$\frac{1}{8}$ ?

L.

Which fraction is  
closest to

$\frac{6}{8}$ ?

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

*¿Cuál fracción se  
aproxima más a*

$\frac{6}{8}$ ?



M.



What fraction represents the shaded portion of the bar?

Write as a decimal.

*¿Qué fracción representa la parte sombreada de la barra?*

*Escribe como un decimal.*

N.



What fraction represents the shaded portion of the bar?

Write as a decimal.

*¿Qué fracción representa la parte sombreada de la barra?*

*Escribe como un decimal.*

O.



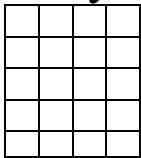
What fraction represents the shaded portion of the bar?

Write as a decimal.

*¿Qué fracción representa la parte sombreada de la barra?*

*Escribe como un decimal.*

P. Write the fact family for this array.



*Escribe la familia de numeros para este conjunto.*

Q.

$$\square \div 6 = 4$$

R.

$$40 \div \square = 8$$

Family Fun Game Arrays

Whale







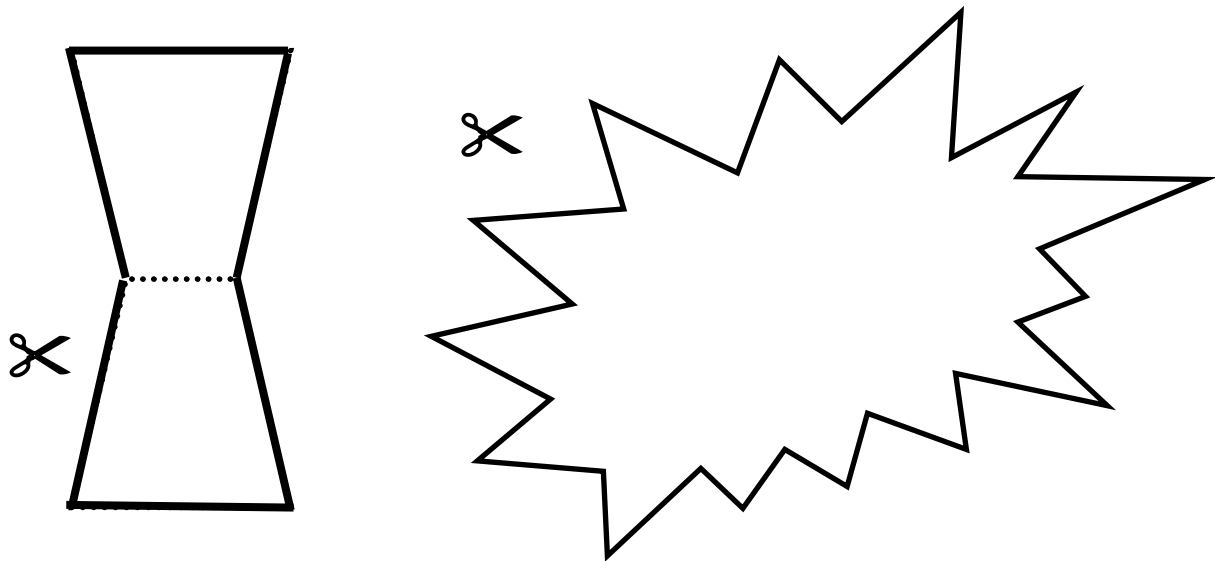
**Unit 3****Multiplication Matrix**

Student Name: \_\_\_\_\_

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	122	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Write your unknown facts here.

# Family Fun Game - Unit 4/ Unidad 4



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3





## Generic Family Fun Game Board

### Materials Generic to All Units:

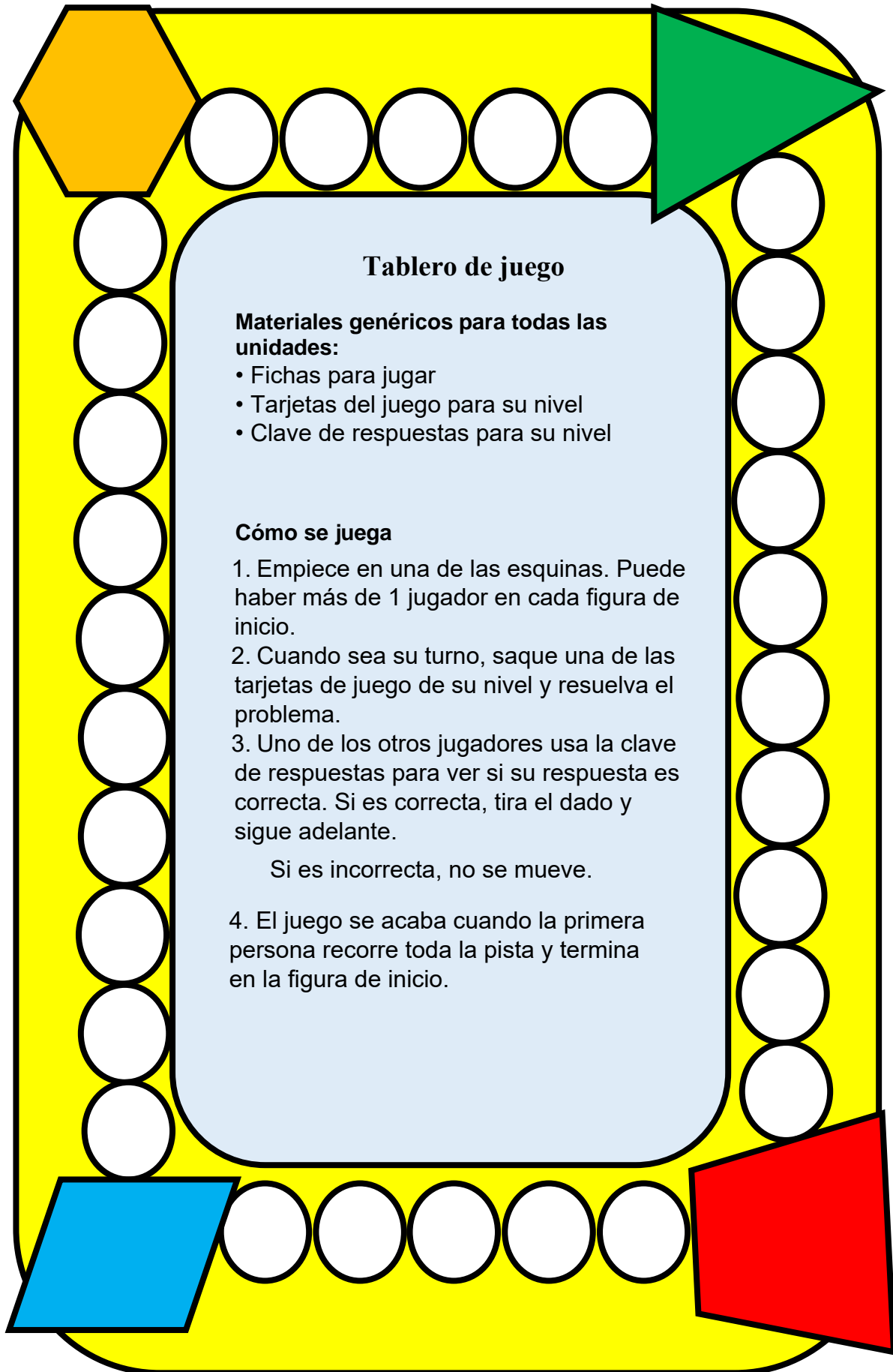
- Game Markers
- Game Cards for your Level
- Answer Key for your Level

### Playing the Game

1. Begin in one of the corner shapes. There may be more than 1 player in each starting shape. Remember where you started.
2. On your turn, draw one of your level game cards and work the problem.
3. One of the other players uses the Answer Key to check your answer. If correct, roll the die and move ahead.

If incorrect, do not move.

4. Game is over when the first person runs the entire track, ending back on the starting shape.



## Tablero de juego

### Materiales genéricos para todas las unidades:

- Fichas para jugar
- Tarjetas del juego para su nivel
- Clave de respuestas para su nivel

### Cómo se juega

1. Empiece en una de las esquinas. Puede haber más de 1 jugador en cada figura de inicio.
2. Cuando sea su turno, saque una de las tarjetas de juego de su nivel y resuelva el problema.
3. Uno de los otros jugadores usa la clave de respuestas para ver si su respuesta es correcta. Si es correcta, tira el dado y sigue adelante.  
Si es incorrecta, no se mueve.
4. El juego se acaba cuando la primera persona recorre toda la pista y termina en la figura de inicio.

**A.**

*Write the fraction  
as a decimal.*

*Escribe la fracción  
como decimal.*

$$\frac{8}{10}$$

**B.**

*Write the fraction  
as a decimal.*

*Escribe la fracción  
como decimal.*

$$\frac{80}{100}$$

**C.**

*Write the fraction  
as a decimal.*

*Escribe la fracción  
como decimal.*

$$\frac{8}{100}$$

**D.**

$$\underline{\quad} \times 7 = 56$$

**E.**

$$\underline{\quad} \div 7 = 9$$

**F.**

$$\underline{\quad} \div 7 = 7$$

**G.**

**Daphne bought 12 vases of flowers. Each vase had a total of 13 flowers in it. How many flowers were there total?**

*Daphne compró 12 floreros. Cada florero tenía un total de 13 flores. ¿Cuántas flores había en total?*

**H.**

**Goose laid 35 golden eggs. They were divided equally into 7 boxes. How many eggs were in each box?**

*Ganso puso 35 huevos de oro. Se dividían igualmente en 7 cajas. ¿Cuántas cajas había en cada caja?*

**I.**

**Ellen's dog ate 3 pounds of dog food every week. How many pounds did the dog eat in 7 weeks?**

*El perro de Ellen comió 3 libras de comida para perros cada semana. ¿Cuántas libras comió el perro en 7 semanas?*

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$



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Family Fun Game Arrays

Whale









**J.**  
Which number is  
closest to 5?

$$4 \frac{1}{4}$$

$$4 \frac{3}{4}$$

*¿Qué número se  
aproxima más a 5?*

**K.**  
Which number is  
closest to 10?

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

$$9 \frac{1}{6}$$

*¿Qué número se  
aproxima más a 10?*

**L.**  
Which number is  
closest to 100?

$$99 \frac{2}{4}$$

$$99 \frac{2}{8}$$

*¿Qué número se  
aproxima más a 100?*

**M**

Write the fact family  
for 8 x 4

*Escribe la familia  
de hecho para 8 x 4*

**N**

Write the fact family  
for 6 x 9

*Escribe la familia  
de hecho para 6 x 9*

**O**

Write the fact family  
for 7 x 8

*Escribe la familia  
de hecho para 7 x 8*

**P.**  
Write the name of the  
other fraction  
equivalent to

$$\frac{1}{3}$$

Escribe el nombre de la  
otra fracción equivalente  
a

$$\frac{1}{3}$$

**Q.**  
Write the name of the  
other fraction  
equivalent to

$$\frac{1}{2}$$

Escribe el nombre de la  
otra fracción equivalente  
a

$$\frac{1}{2}$$

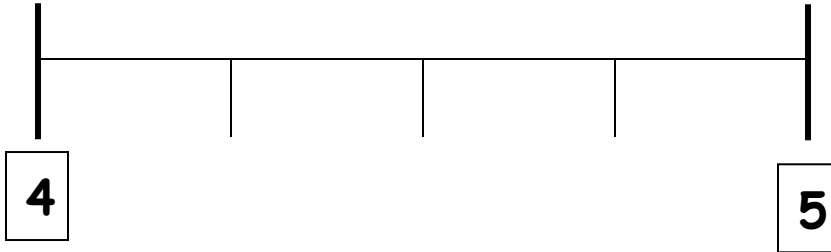
**R.**  
Write the name of the  
other fraction  
equivalent to

$$\frac{1}{4}$$

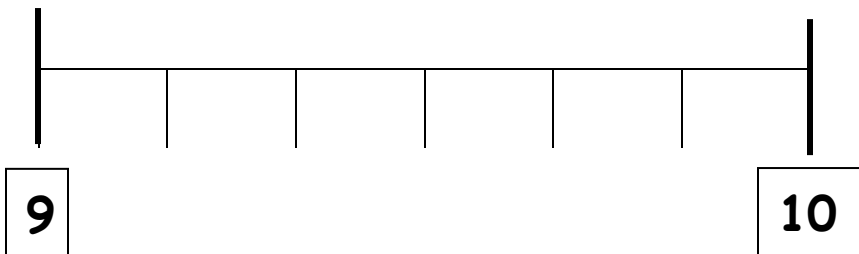
Escribe el nombre de la  
otra fracción equivalente  
a

$$\frac{1}{4}$$

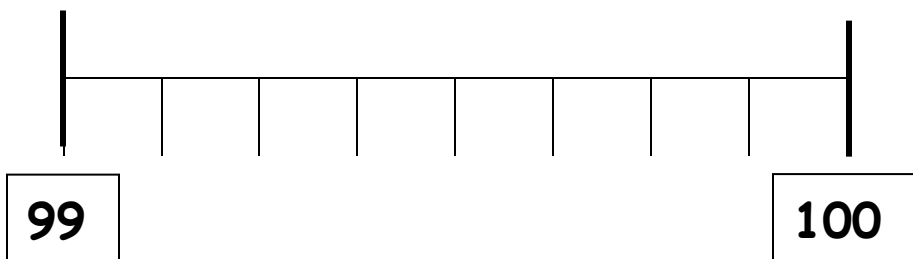
**Problem J. Which number is closest to 5?**



**Problem K. Which number is closest to 10?**

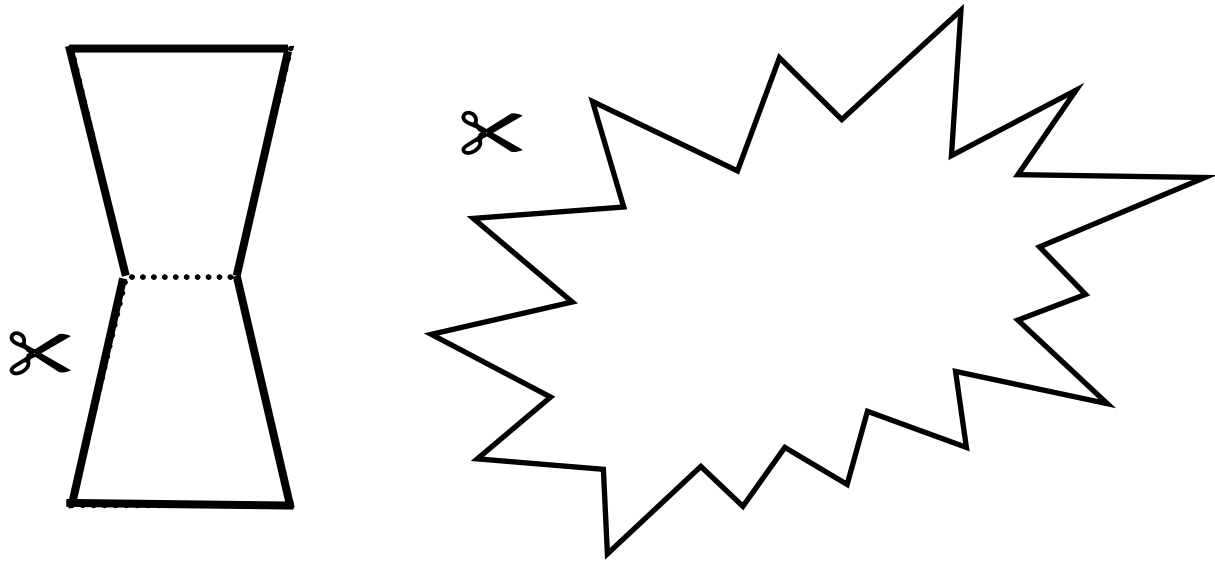


**Problem L. Which number is closest to 100?**





# Family Fun Game - Unit 5/ Unidad 5



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



Unit 5

Family Fun

A.  
**Find the sum of \$42.50 and \$37.49**  
*Busca la suma de \$42.50 and \$37.49*

B.  
**Name a fraction equivalent to 0.5**  
*Nombre una fracción equivalente a 0.5*

C.  
**Arrange least to greatest:**  
*Arregla de mínimo a máximo:*  
 $1\frac{1}{3}$       $1\frac{1}{4}$

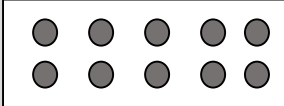
D.  
**Draw an array for 5 x 4.**  
*Dibuja un conjunto por 5 x 4.*

E.  
**What's missing?**  
*¿Qué falta?*  
 ÷ 7 = 9

F.  
**42 balloons arranged in groups of 6. How many groups of balloons?**  
*42 globos arreglados en grupos de 6. ¿Cuántos grupos de globos?*

G.  
**45 pennies in 9 stacks. How many pennies in each stack?**  
*45 centavos en 9 montones. ¿Cuántos centavos en cada montón?*

This muffin pan and 3 more.  
*Este molde de magdalenas y 3 más.*



How many muffins? *¿Cuántas magdalenas?* (H)


Write decimal for:  
**Two-hundredths.**      $\frac{2}{100}$   
*Escribe un decimal para: Tres y dos centésimos.* (I)

J.  
**Write decimal for  $\frac{3}{4}$**   
*Escribe el decimal para:  $\frac{3}{4}$*

K.  
**Create a number line and place the following on the line:**  
*Crea una línea numérica y coloca los números siguientes en la línea:*  
 $\frac{1}{3}$     $\frac{1}{2}$


L.  
**Which is closest to 9?**  
*¿Qué número es más cerca a 9?*  
**8.09   8.99**

M.  
**What fraction represents the model? Write the decimal.**  
*¿Qué fracción representa el modelo? Escribe el decimal.*



N.  
**Write the equivalent decimal for:  $\frac{7}{100}$**   
*Escribe el decimal equivalente para:  $\frac{7}{100}$*

Family Fun Game Arrays

Whale 





ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$



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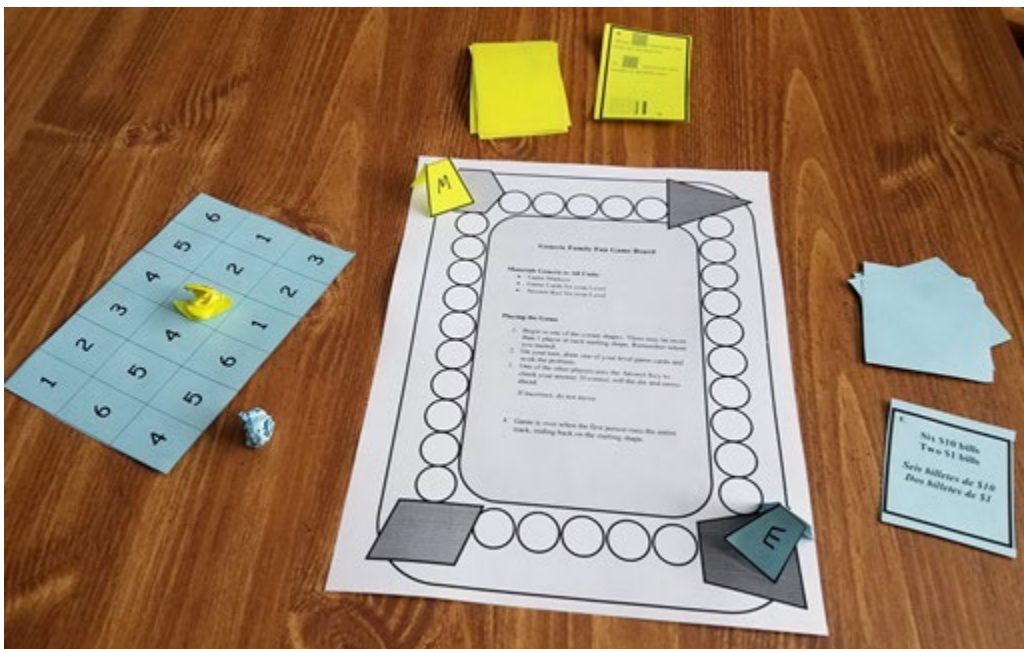
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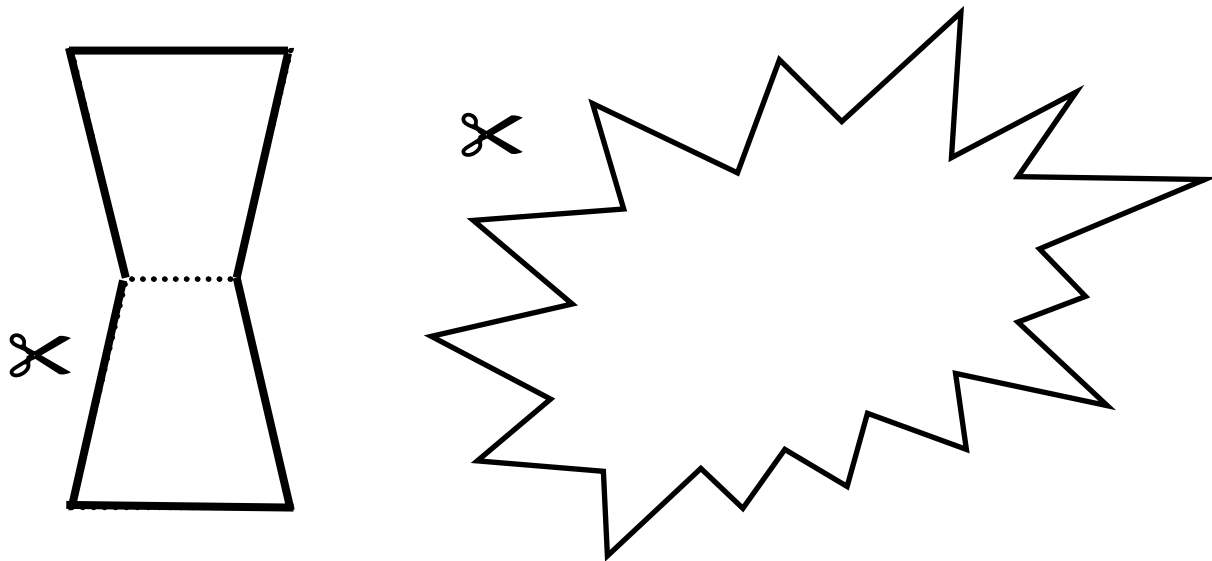
# Family Fun Game

## *Juego de diversión familiar*



*OWL Pack*

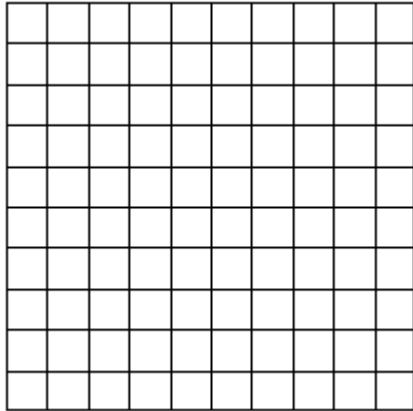
# Family Fun Game - Unit 1/ Unidad 1



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



When this block with 100 squares represents 1... / *Cuando este bloque de 100 cuadrados representa 1...*



... then this part of the block, with 10 squares, equals... / *entonces esta parte del bloque, con 10 cuadrados, es igual a...*



$$= \frac{10}{100} = \frac{1}{10}$$

Written as decimals.../ *Escrito como decimales...*

$$\frac{10}{100} = \boxed{0.10}$$

$$\frac{1}{10} = \boxed{0.1}$$

... and this part of the block, with 1 square, equals... / *y esta parte del bloque, con 1 cuadrado, es igual a...*

$$\square = \frac{1}{100}$$

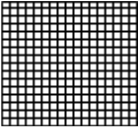
Written as a decimal.../ *Escrito como decimal...*

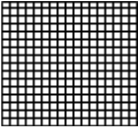
$$\frac{1}{100} = \boxed{0.01}$$



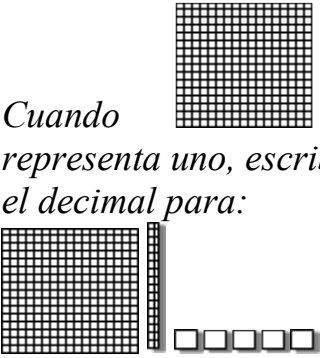


**A.**

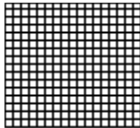


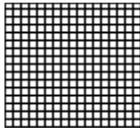
When  represents one, write the decimal for:

*Quando representa uno, escribe el decimal para:*

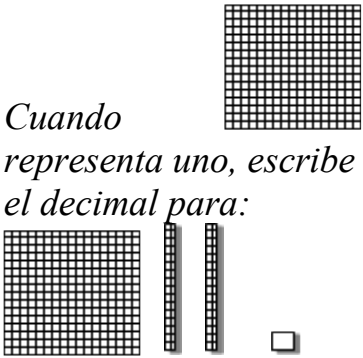


**B.**

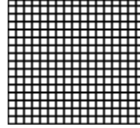


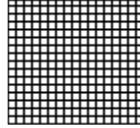
When  represents one, write the decimal for:

*Quando representa uno, escribe el decimal para:*

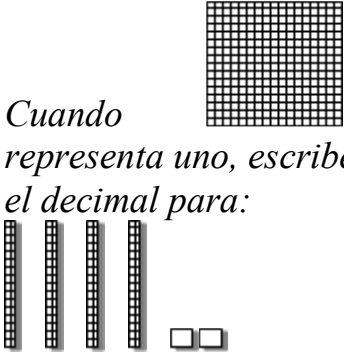


**C.**

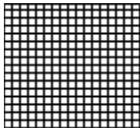


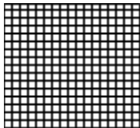
When  represents one, write the decimal for:

*Quando representa uno, escribe el decimal para:*

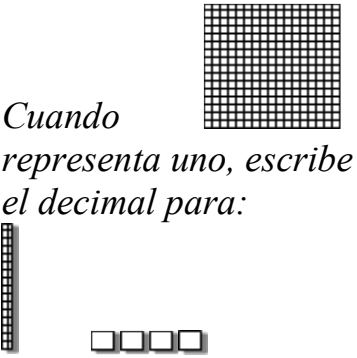


**D.**

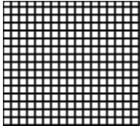


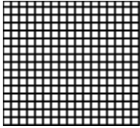
When  represents one, write the decimal for:

*Quando representa uno, escribe el decimal para:*

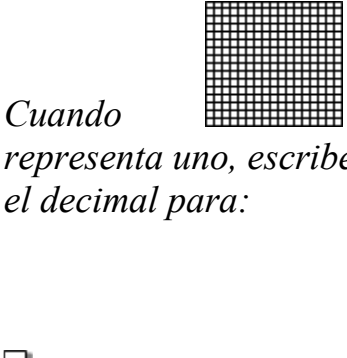


**E.**

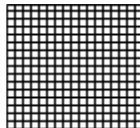


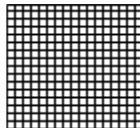
When  represents one, write the decimal for:

*Quando representa uno, escribe el decimal para:*

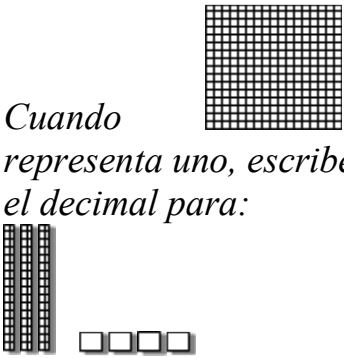


**F.**



When  represents one, write the decimal for:

*Quando representa uno, escribe el decimal para:*

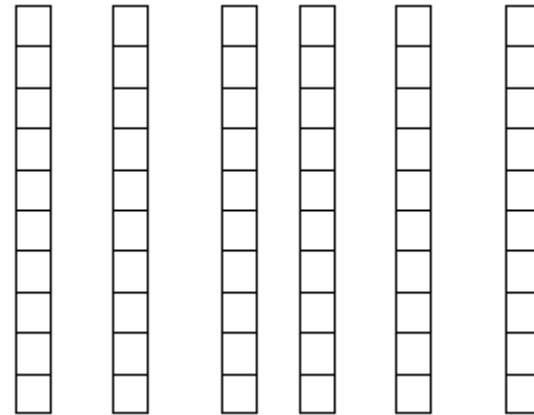
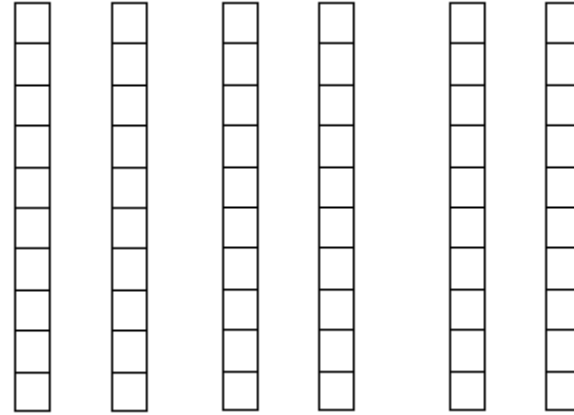
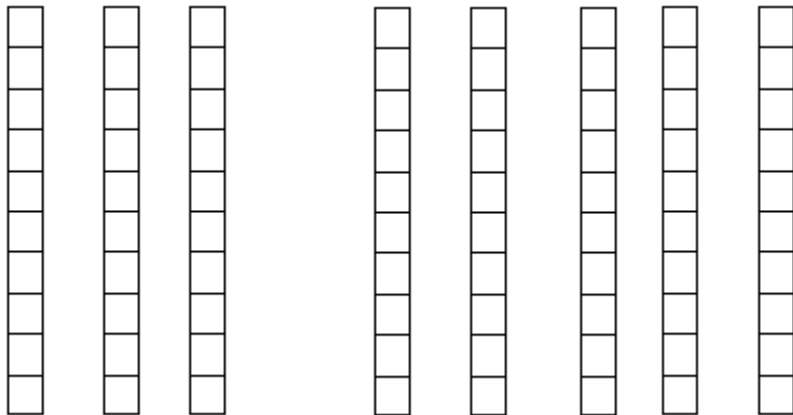
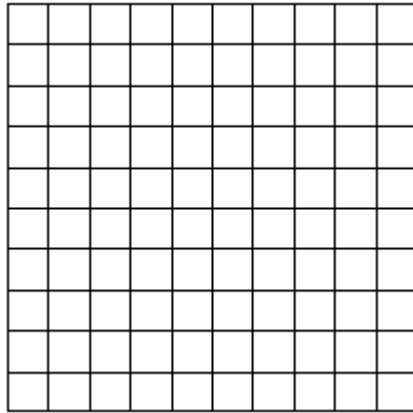


ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

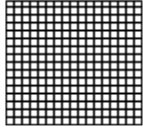
ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

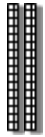




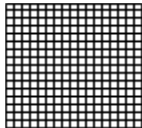
G.

When  represents one, write the decimal for:

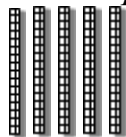
*Quando representa uno, escribe el decimal para:*



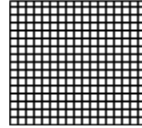
H.

When  represents one, write the decimal for:

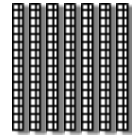
*Quando representa uno, escribe el decimal para:*



I.

When  represents one, write the decimal for:

*Quando representa uno, escribe el decimal para:*



J.

Marty ate  $\frac{1}{4}$  of the pizza.  
Carrie ate  $\frac{2}{4}$  of the pizza.  
They left the rest for their brother. What fractional part of the pizza did they leave for their brother?

*Marty se comió  $\frac{1}{4}$  parte de la pizza. Carrie se comió  $\frac{2}{4}$  partes de la pizza. Dejaron el resto para su hermano. ¿Qué fracción de la pizza dejaron para su hermano?*

K.

Abas took  $\frac{5}{8}$  of his sport cards to school. What fractional part of the cards did he leave at home?

*Abas llevó  $\frac{5}{8}$  de sus cartas deportivas a la escuela. ¿Qué fracción de las cartas dejó en su casa?*

L.

Alex walked  $\frac{2}{5}$  of the way to school. She rode a city bus the rest of the way. How far did she ride on the city bus?

*Alex caminó  $\frac{2}{5}$  partes del camino a la escuela. Viajó en autobús el resto del camino. ¿Cuán lejos viajó en el autobús?*

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

**M.**

Martin found  $\frac{3}{8}$  of his homework in his sister's room and  $\frac{2}{8}$  of his homework in his dog's bed. He never found the rest of his homework. How much was still missing?

*Martin encontró  $\frac{3}{8}$  partes de sus tareas escolares en el dormitorio de su hermana y  $\frac{2}{8}$  partes de sus tareas en la cama de su perro. Nunca encontró el resto de sus tareas. ¿Cuánto todavía faltaba?*

**N.**

Callie's calico cat was  $\frac{1}{5}$  orange,  $\frac{2}{5}$  white and the remaining fractional part black. What fractional part was the cat black?

*El gato calicó de Callie tenía  $\frac{1}{5}$  parte color naranja,  $\frac{2}{5}$  partes blanca y la parte fraccional restante, negra. ¿Qué fracción del gato era negra?*

**O.**

Meghan's drink was  $\frac{1}{6}$  orange juice,  $\frac{1}{6}$  pineapple juice,  $\frac{1}{6}$  lemonade and the rest water. What fractional part of the drink was water?

*La bebida de Meghan era  $\frac{1}{6}$  parte jugo de naranja,  $\frac{1}{6}$  parte jugo de piña,  $\frac{1}{6}$  limonada y el resto, agua. ¿Qué fracción de la bebida era agua?*

**P.**

Carly walked 3.5 miles to school and 4.7 miles home because she stopped by a friend's house after school. How many miles did she walk that day?

*Carly caminó 3.5 millas a la escuela y 4.7 millas a su casa porque entró en la casa de un amigo después de la escuela. ¿Cuántas millas caminó ese día?*

**Q.**

Antonio measured wood for his project. His pieces were 3.75 meters, 4.2 meters and 1.06 meters long. How many meters of wood did he have?

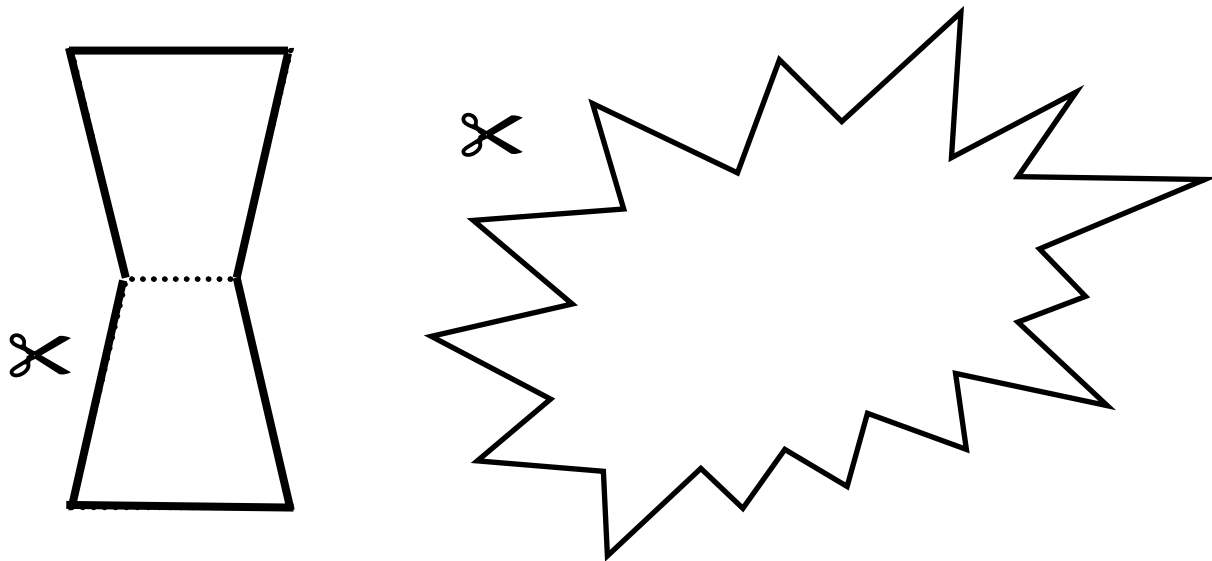
*Antonio midió madera para su proyecto. Los pedazos medían 3.75 metros, 4.2 metros y 1.06 metros de largo. ¿Cuántos metros de madera tenía?*

**R.**

The odometer on Tym's car read 1205.7 miles in the morning. By that evening, the odometer reading was 1356.9 miles. How far was the car driven that day?

*El cuentamillas del vehículo de Tym leía 1205.7 en la mañana. Esa tarde, el cuentamillas leía 1356.9. ¿Cuán lejos viajó el vehículo ese día?*

# Family Fun Game - Unit 2/ Unidad 2

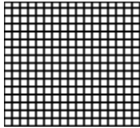


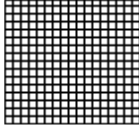
1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3

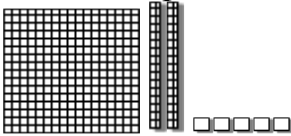


Family Fun – Problem Cards (1 of 3)

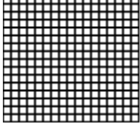
**A.**

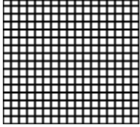
When  represents one, write the decimal for:

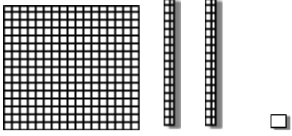
Quando  representa uno, escribe el decimal para:



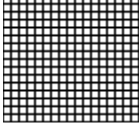
**B.**

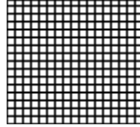
When  represents one, write the decimal for:

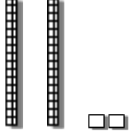
Quando  representa uno, escribe el decimal para:



**C.**

When  represents one, write the decimal for:

Quando  representa uno, escribe el decimal para:



**D.**

Marty ate  $\frac{1}{6}$  of the pizza.  
 Carrie ate  $\frac{2}{6}$  of the pizza. They left the rest for their brother.  
 What fractional part of the pizza did they leave for their brother?

*Marty se comió  $\frac{1}{6}$  parte de la pizza. Carrie se comió  $\frac{2}{6}$  partes de la pizza. Dejaron el resto para su hermano. ¿Qué fracción de la pizza dejaron para su hermano?*

**E.**

Walter took  $\frac{3}{8}$  of his sport cards to school.  
 What fractional part of the cards did he leave at home?

*Walter llevó  $\frac{3}{8}$  de sus cartas deportivas a la escuela. ¿Qué fracción de las cartas dejó en su casa?*

**F.**

Alex walked  $\frac{5}{8}$  of the way to school. She rode a city bus the rest of the way.  
 What fractional part of the trip was on the city bus?

*Alex caminó  $\frac{5}{8}$  partes del camino a la escuela. Viajó en autobús el resto del camino. ¿Cuán lejos viajó en el autobús?*



ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

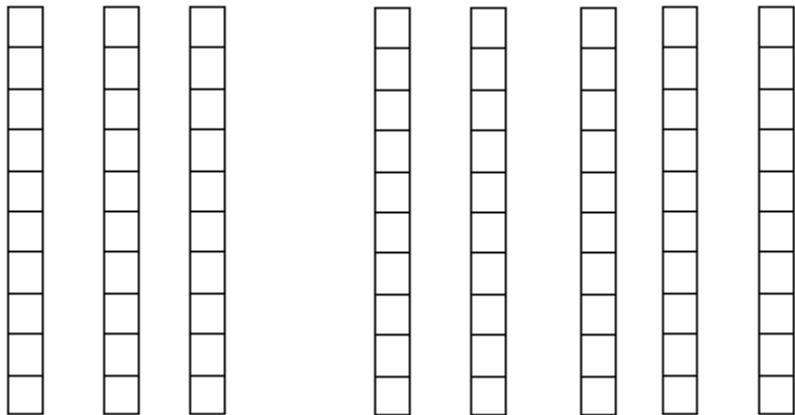
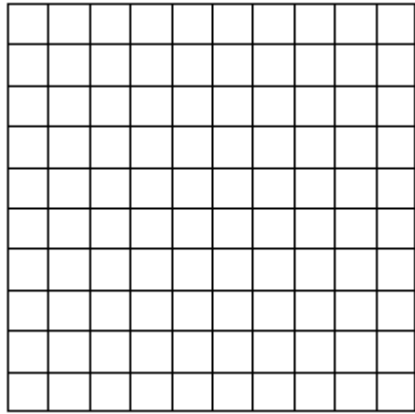
ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

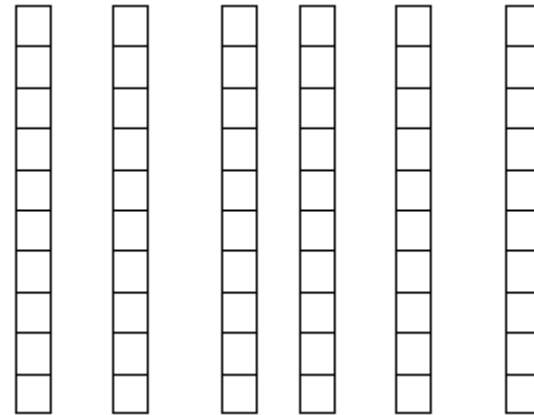
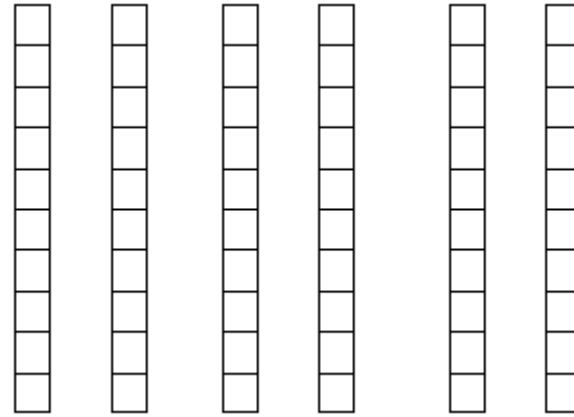
ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

Family Fun

Unit 2



Owl





Family Fun – Problem Cards (2 of 3)

**G.**

Meghan took \$185.00 from her bank account to buy new clothes for school. She had \$76.45 left and put it back in the bank after buying clothes. What did her clothes cost?

*Meghan retiró \$185.00 de su cuenta de banco para comprar ropa nueva para la escuela. Tenía un remanente de \$76.45 y lo depositó en el banco después de comprar la ropa. ¿Cuánto costó su ropa?*

**H.**

Kit walked 2.7 miles to school and 3.7 miles home because she stopped by a friend's house after school. How many miles did she walk that day?

*Kit caminó 2.7 millas a la escuela y 3.7 miles a su casa porque entró en la casa de un amigo después de la escuela. ¿Cuántas millas caminó ese día?*

**I.**

The odometer on Tym's car read 13005.7 in the morning. By that evening, the odometer reading was 13056.9. How far was the car driving that day?

*El cuentamillas del vehículo de Tym leía 13005.7 en la mañana. Esa tarde, el cuentamillas leía 13056.9. ¿Cuán lejos viajó el vehículo ese día?*

**J.**

**What is the GCF  
of  
45 and 63?**

***¿Cuál es el MFC  
de  
45 y 63?***

**K.**

**What is the GCF  
of  
35 and 14?**

***¿Cuál es el MFC  
de  
35 y 14?***

**L.**

**What is the GCF  
of  
18 and 27?**

***¿Cuál es el MFC  
de  
18 y 27?***

HUNDREDS	TENS	ONES	Tenths	Hundredths

TEN THOUSANDS	<u>ONE THOUSANDS</u>	HUNDREDS	TENS	ONES	Tenths	Hundredths

TEN THOUSANDS	<u>ONE THOUSANDS</u>	HUNDREDS	TENS	ONES	Tenths	Hundredths



Family Fun – Problem Cards (3 of 3)

M.  
What is the LCM  
of  
2 and 14?

*¿Cuál es el MCM  
de  
2 y 14?*

N.  
What is the LCM  
of  
14 and 42?

*¿Cuál es el MCM  
de  
14 y 42?*

O.  
What is the LCM  
of  
16 and 8?

*¿Cuál es el MCM  
de  
16 y 8?*

P.

$$\frac{2}{3} - \frac{1}{2}$$

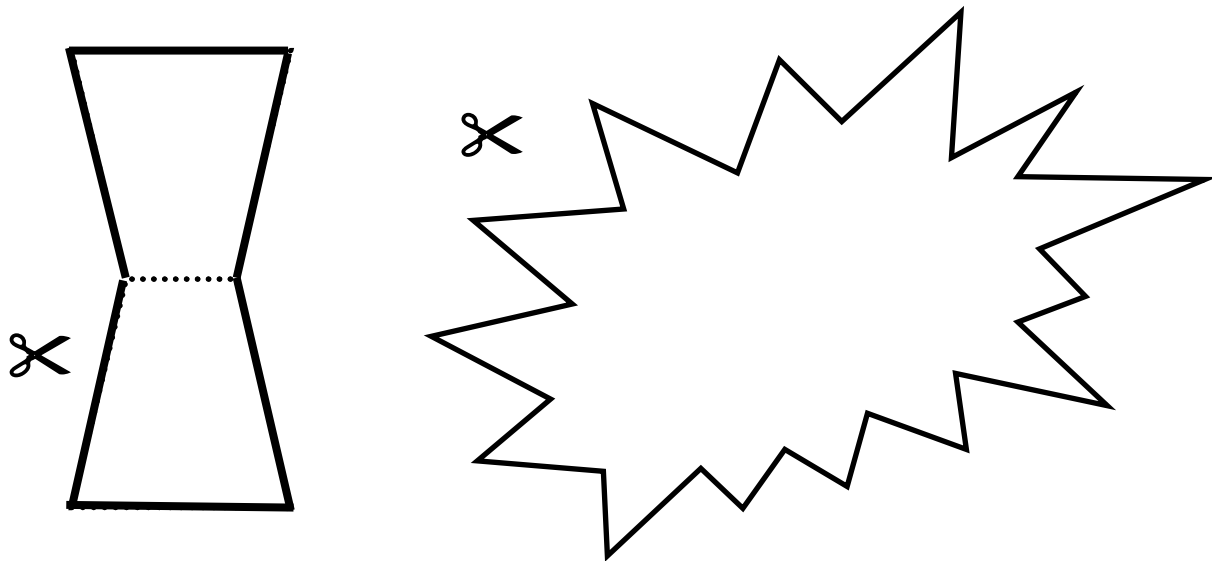
Q.

$$\frac{5}{6} - \frac{2}{3}$$

R.

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


# Family Fun Game - Unit 3/ Unidad 3




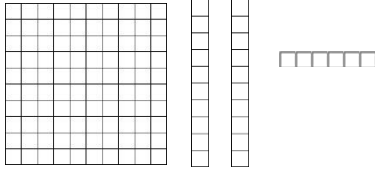
1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



Family Fun – Problem Cards (1 of 3)

**A.** When  represents one, write the decimal for:

Si  representa uno, escribe el decimal para:



**B.** Marty ate  $\frac{2}{6}$  of the pizza. Carrie ate  $\frac{3}{6}$  of the pizza. They left the rest for their brother. What fractional part of the pizza did they leave for their brother?

*Marty se comió  $\frac{2}{6}$  partes de la pizza. Carrie se comió  $\frac{3}{6}$  partes de la pizza. Dejaron el resto para su hermano. ¿Qué fracción de la pizza dejaron para su hermano?*

**C.** The odometer on Tym’s car read 32,345.07 in the morning. By that evening, Tym had driven 425.7 miles. What did the odometer read then?

*El cuentamillas del vehículo de Tym leía 32,345.07 por la mañana. Esa tarde, Tym había viajado 425.7 millas. ¿Qué leía el cuentamillas entonces?*

**D.** Meghan took \$287.00 from her bank account to buy new clothes for school. She had \$76.45 left and put it back in the bank after buying clothes. What did her clothes cost?

*Meghan retiró \$287.00 de su cuenta de banco para comprar ropa para la escuela. Le sobró la cantidad de \$76.45 y la depositó en el banco después de comprar la ropa. ¿Cuánto costó la ropa?*

**E.** Write a decimal representation of:

*Escribe una representación decimal de:*

$$\frac{3}{4}$$

**F.** Write a decimal representation of:

*Escribe una representación decimal de:*

$$\frac{7}{100}$$

Place Value: Fractions to Decimals

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

Owl

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$





<b>Ten Thousand</b>	<b>One Thousand</b>	<b>Hundred</b>	<b>Ten</b>	<b>One</b>	<b>Tenths</b>	<b>Hundredths</b>

<b>Ten Thousand</b>	<b>One Thousand</b>	<b>Hundred</b>	<b>Ten</b>	<b>One</b>	<b>Tenths</b>	<b>Hundredths</b>


<b>Ten Thousand</b>	<b>One Thousand</b>	<b>Hundred</b>	<b>Ten</b>	<b>One</b>	<b>Tenths</b>	<b>Hundredths</b>



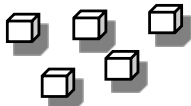
Family Fun – Problem Cards (2 of 3)

G.



When  represents one, write the decimal and percent for:

*Quando representa uno, escribe el decimal y el porcentaje para:*



H.

What is the GCF of 45 and 27?

*¿Cuál es máximo factor común de 45 y 27?*

I.

What is the LCM of 6 and 9?

*¿Cuál es mínimo múltiplo común de 6 y 9?*

J.

Use color tiles to model the ratio 4:1

*Usa fichas de colores para modelar la razón: 4:1*

K.

Use color tiles to model the ratio 5:3

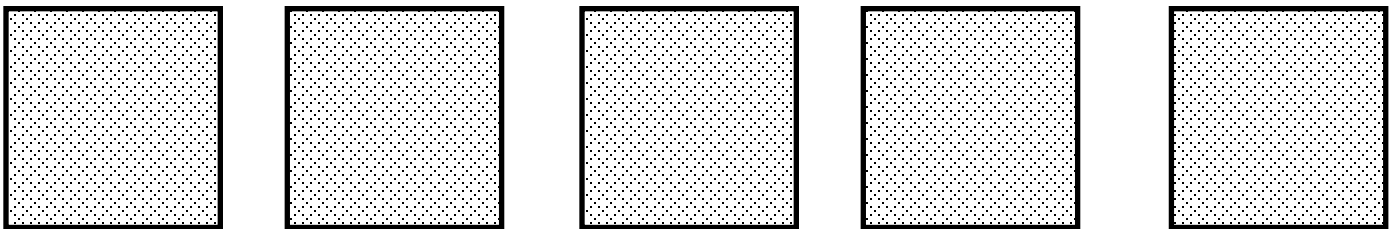
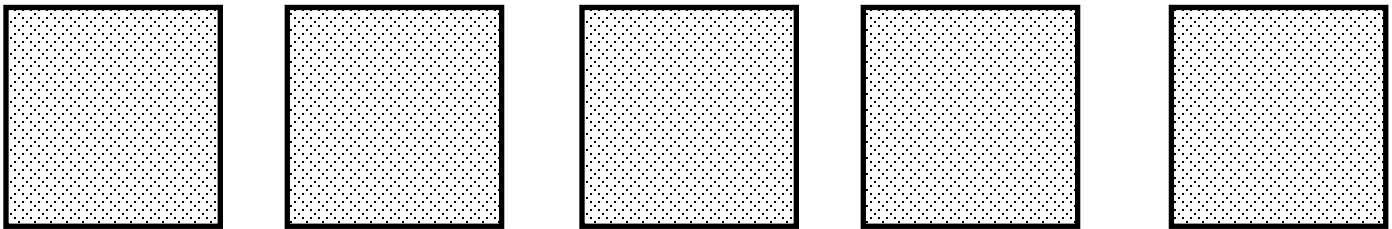
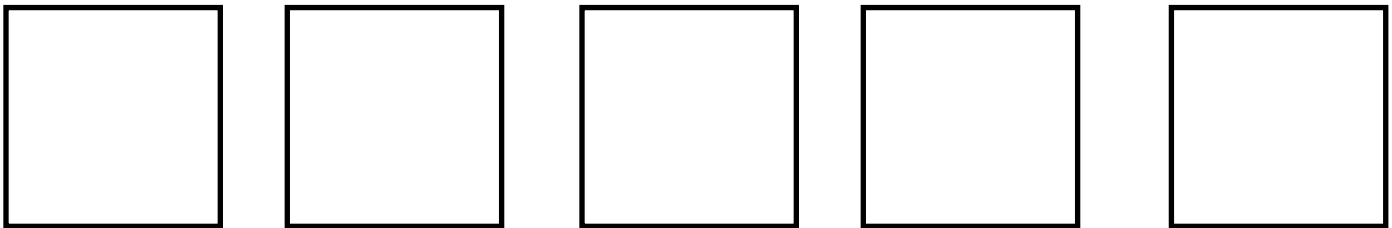
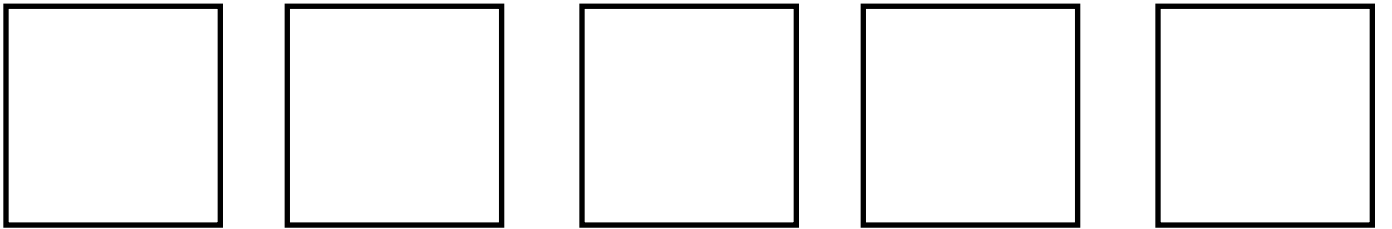
*Usa fichas de colores para modelar la razón: 5:3*

L.

Use color tiles to model the ratio 3:7

*Usa fichas de colores para modelar la razón: 3:7*

Color tiles to model ratios





Family Fun – Problem Cards (3 of 3)

M.  
Use two different  
ways to express  
the ratio 3 to 4.

*Expresa la razón  
3 a 4  
de dos maneras  
diferentes.*

N.  
Use two different  
ways to express  
the ratio 6 to 1.

*Expresa la razón  
6 a 1  
de dos maneras  
diferentes.*

O.  
Use two different  
ways to express  
the ratio 3 to 5.

*Expresa la razón  
3 a 5  
de dos maneras  
diferentes.*

P.  
Solve for  $x$ .  
Calcula  $x$ .

$$\frac{1}{3} = \frac{x}{9}$$

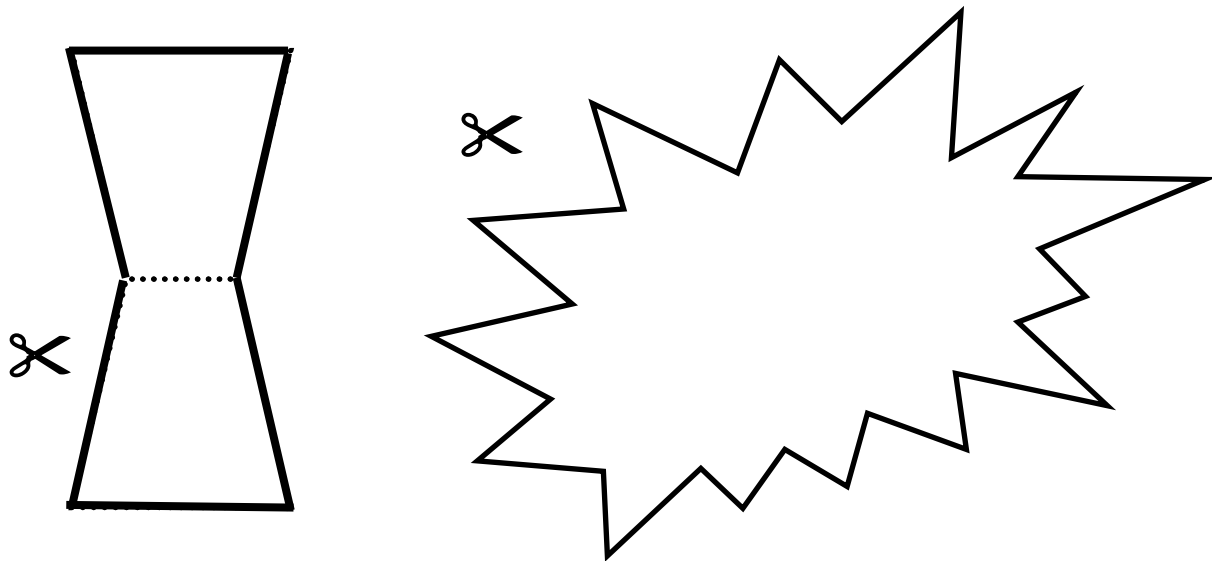
Q.  
Solve for  $x$ .  
Calcula  $x$ .

$$\frac{2}{3} = \frac{6}{x}$$

R.  
Solve for  $x$ .  
Calcula  $x$ .

$$\frac{3}{4} = \frac{x}{12}$$

# Family Fun Game - Unit 4/ Unidad 4



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



Family Fun – Problem Cards (1 of 3)

**A.**  
Kayla ate 2.75 slices of pizza at lunch. Carlos ate  $3\frac{1}{2}$  slices. Total slices of pizza eaten?

*Kayla comió 2.75 porciones de pizza en el almuerzo. Carlos comió  $3\frac{1}{2}$  porciones. ¿Cuál es el total de porciones de pizza que se comieron?*

**B.**  
My mom’s recipe calls for  $1\frac{1}{4}$  cups of oats, but a recipe online calls for 1.75 cups. What is the measurement difference between the oats in the recipes?

*Para la receta de mi mamá se necesitan  $1\frac{1}{4}$  tazas de avena, pero para una receta en línea se necesitan 1.75 tazas. ¿Cuál es la diferencia de medición entre la avena en las recetas?*

**C.**

$$\begin{array}{r} \$405,258,013.79 \\ + \underline{\$18,036,906.35} \end{array}$$

**D.**

$$9074.018 - 6939.57 = ?$$

**E.**  
Jerry had \$38,942.37 in his savings account. After putting a down payment on a new car he had \$31,542.37. How much was his down payment?

*Jerry tenía \$38,942.37 en su cuenta de ahorros. Luego de realizar un pago por un nuevo auto, tenía \$31,542.37. ¿De cuánto fue este pago?*

**F.**

A concrete mixture has 37.5% gravel aggregate, 35% sand, 17.5% cement, and water. What percent of the mixture is water?

*Una mezcla de concreto tiene un 37.5% de agregado de grava, un 35% de arena, un 17.5% de cemento y agua. ¿Qué porcentaje de la mezcla es el agua?*

ONES	Tenths	Hundredths

ONES	Tenths	Hundredths

TEN THOUSANDS	<u>ONE THOUSANDS</u>	HUNDREDS	TENS	ONES	Tenths	Hundredths

TEN THOUSANDS	<u>ONE THOUSANDS</u>	HUNDREDS	TENS	ONES	Tenths	Hundredths



Family Fun – Problem Cards (2 of 3)

**G.**

There is a 12.5% hotel tax in Florida. If the room cost was \$388.00, how much tax should be charged?

*Hay un impuesto de hotel de 12.5% en Florida. Si el costo de la habitación fue de \$388.00, ¿cuánto se debe cobrar de impuestos?*

**H.**

A 33% late fee is added to your bill if not paid on time. Dora missed her payment of \$99.00. How much is her late fee?

*Se agrega una tarifa por atraso del 33% si la factura no se paga a tiempo. Dora no realizó su pago de \$99.00. ¿De cuánto es su tarifa por atraso?*

**I.**

Kayla deposited \$2500 into a savings account for her son. It will earn 15% interest in one year if untouched. How much will she earn that year?

*Kayla depositó \$2500 en una cuenta de ahorros para su hijo. Ganará 15% de interés en un año si no se toca. ¿Cuánto ganará en ese año?*

**J.**

Paul's credit card charged him 20% interest each month on purchases. If he charged \$198.20, how much interest would be added?

*La tarjeta de crédito de Paul le cobró un 20% de interés cada mes sobre sus compras. Si gastó \$198.20, ¿cuánto interés se agregará?*

**K.**

Justin left a 25% tip on his food bill of \$48.80. How much tip did he leave?

*Justin dejó una propina de 25% en su cuenta de restaurante de \$48.80. ¿Cuánta propina dejó?*

**L.**

Jill left a \$10 tip on a bill that was \$40? What percent tip did she leave?

*Jill dejó una propina de \$10 de una factura que era de \$40. ¿Qué porcentaje de propina dejó?*



TEN THOUSANDS	<u>ONE THOUSANDS</u>	HUNDREDS	TENS	ONES	Tenths	Hundredths

ONES	Tenths	Hundredths	Thousandths	Ten-Thousandths

ONES	Tenths	Hundredths	Thousandths	Ten-Thousandths



Family Fun – Problem Cards (3 of 3)

M. Determine if this statement is true.  
*Determina si esta afirmación es correcta.*

$$\frac{9 \text{ green}}{10 \text{ blue}} = \frac{18 \text{ blue}}{20 \text{ green}}$$

N. Determine if this statement is true.  
*Determina si esta afirmación es correcta.*

$$\frac{\$5}{3 \text{ bags}} = \frac{\$30}{18 \text{ bags}}$$

O. Based on the ratio given, determine how many students fit on one bus.

480 students : 8 buses

*En base a la relación dada, determina cuántos estudiantes caben en un autobús.*

480 students : 8 buses

P.  
 Eiko hit 20 notes out of 22 on her sheet music. At this rate, how many notes will she hit out of 33?

*Eiko tocó 20 notas de las 22 de su hoja de música. A este ritmo, ¿cuántas notas tocará de 33?*

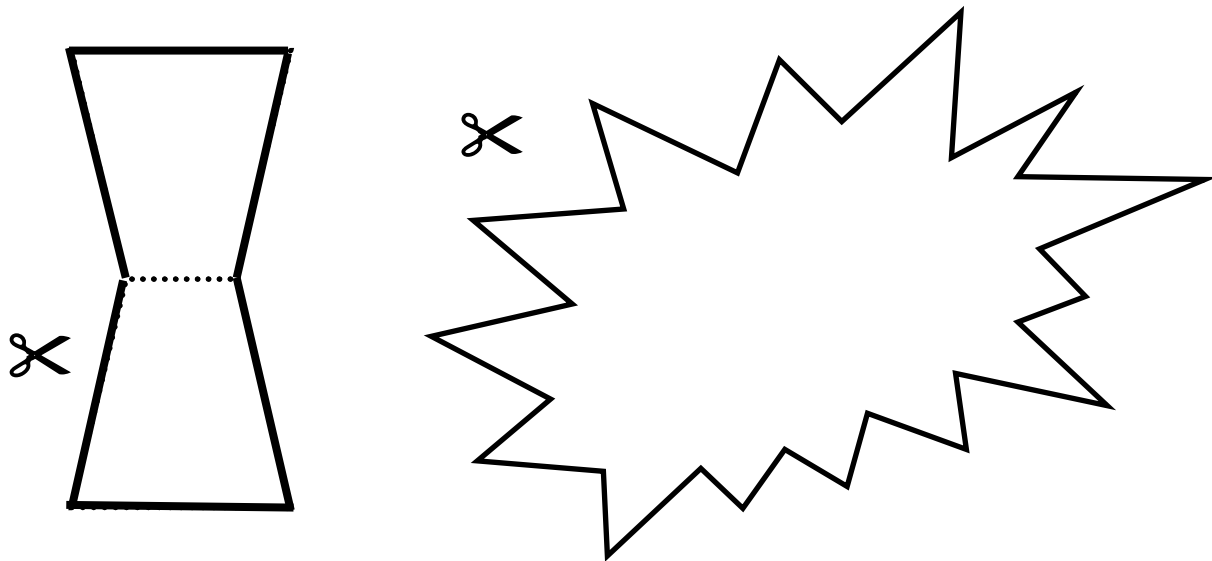
Q.

$$\frac{3}{4} + \frac{4}{6} = ???$$

R.

$$15\frac{7}{8} - 11\frac{3}{4} = ???$$

# Family Fun Game - Unit 5/ Unidad 5



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3



Family Fun – Problem Cards (1 of 3)

A.

$$18 \frac{3}{10} + 6 \frac{4}{10} - 24.5 = ?$$

B.

Marla ran 4.75 miles.  
Jesse walked  $3 \frac{1}{2}$  miles farther than Marla. How far did Jesse walk?

*Marla corrió 4.75 millas.*

*Jesse caminó  $3 \frac{1}{2}$  millas*

*más que Marla.*

*¿Cuánto*

*caminó Jesse?*

C.

$$\begin{array}{r} \$5000.00 \\ - 4999.99 \\ \hline \end{array}$$

D.

$$\begin{array}{r} 111,111,111 \\ + 999,999,999 \\ \hline \end{array}$$

E.

27.6 grams salt added to bottle G. 18.05 grams of salt added to bottle H. 9.007 grams of salt added to bottle J. How much salt was used altogether?

*27.6 gramos de sal agregados a la botella G.*

*18.05 gramos de sal agregados a la botella H.*

*9.007 gramos de sal agregados a la botella J.*

*¿Cuánta sal se usó en total?*

F.

A solution is made up of 18.06% -chemical A, 70.02%-distilled water, and the remaining percentage is chemical B. What percent is chemical B?

*Una solución está hecha de 18.06% de sustancia química A, 70.02% de agua destilada y el porcentaje restante es de sustancia química B. ¿Qué porcentaje corresponde a la sustancia química B?*

<b>ONES</b>	<b>Tenths</b>	<b>Hundredths</b>

<b>ONES</b>	<b>Tenths</b>	<b>Hundredths</b>

<b>ONES</b>	<b>Tenths</b>	<b>Hundredths</b>	<b>Thousandths</b>	<b>Ten- Thousandths</b>

<b>ONES</b>	<b>Tenths</b>	<b>Hundredths</b>	<b>Thousandths</b>	<b>Ten- Thousandths</b>



Family Fun – Problem Cards (2 of 3)

G.

There is a 15% hotel tax in Oregon. If the room cost was \$183.00, how much tax should be charged?

*Hay un impuesto de hotel de 15% en Oregon. Si el costo de la habitación fue de \$183.00, ¿cuánto se debe cobrar de impuestos?*

H.

70% tip of \$500  
= ?

propina del 70%  
de \$500 = ?

I.

Delia deposited \$600 into a savings account for her son. It will earn 15% interest in one year if untouched. How much will she earn that year?

*Delia depositó \$600 en una cuenta de ahorros para su hijo. Ganará 15% de interés en un año si no se toca. ¿Cuánto ganará en ese año?*

J.

Tiffany's credit card charged her 20% interest each month on purchases. If she paid \$46.00 in interest, how much did she charge on the card that month?

*La tarjeta de crédito de Tiffany le cobró un 20% de interés cada mes sobre sus compras. Si pagó \$46.00 de intereses, ¿cuánto gastó con la tarjeta ese mes?*

K.

12 cups of granola consists of about 25% cashews. How many cups of cashews are in the granola mixture?

*12 tazas de granola consisten aproximadamente en 25% de anacardos. ¿Cuántas tazas de anacardos hay en la mezcla de granola?*

L.

Julie left a \$12.50 tip on a bill that was \$125.00? What percent tip did she leave?

*Julie dejó una propina de \$12.50 de un factura que era de \$125.00. ¿Qué porcentaje de propina dejó?*



Family Fun – Problem Cards (3 of 3)

M. Determine if this statement is true.

$$\frac{9 \text{ green}}{10 \text{ blue}} = \frac{45 \text{ green}}{40 \text{ blue}}$$

*Determina si esta afirmación es correcta.*

$$\frac{9 \text{ green}}{10 \text{ blue}} = \frac{45 \text{ green}}{40 \text{ blue}}$$

N. Determine if this statement is true.

$$\frac{24 \text{ lbs}}{\$8} = \frac{6 \text{ lbs}}{\$2}$$

*Determina si esta afirmación es correcta.*

$$\frac{24 \text{ lbs}}{\$8} = \frac{6 \text{ lbs}}{\$2}$$

O. Based on the ratio given, determine how many cotton balls fit in one bag.

9600 cotton balls: 8 bags

*En base a la relación dada, determina cuántas bolitas de algodón caben en una bolsa.*

*9600 bolitas de algodón: 8 bolsas*

P. Nurse Farrah delivers about 6 babies per shift at the hospital. At this rate, how many babies will she deliver in 8 shifts?

*La enfermera Farrah asiste en el parto de 6 bebés por turno en el hospital. A este ritmo, ¿cuántos partos atenderá en 8 turnos?*

Q.





$$\frac{9}{12} + \frac{1}{4} = ???$$

R.

$$3\frac{2}{3} - 1\frac{1}{5} = ???$$

Unit 1

Family Fun Game Answer Key - All Levels





Problem Letter	 (pink)	 (blue)	 (green)	 (yellow)
A	5¢ (cents)	\$32	6	1.15
B	6¢	\$42	3	1.21
C	7¢ (cents)	\$55	15	0.42
D	8¢ (cents)	\$78	8	0.14
E	9¢ (cents)	\$62	9	0.01
F	10¢ (cents)	\$82	28	0.34
G	6¢ (cents)	\$28	1/4	0.25
H	7¢ (cents)	\$12	2/8	0.5 or 0.50
I	8¢ (cents)	\$8	1/3	0.75
J	10¢ (cents)	\$10	2/6	1/4 pizza
K	13¢ (cents)	\$32	10	3/8 cards
L	15¢ (cents)	\$25	3	3/5 way on bus
M	11¢ (cents)	\$15	9	3/8 missing
N	12¢ (cents)	\$21	1	2/5 black
O	9¢ (cents)	\$45	0.15	3/6 or 1/2 water
P	14¢ (cents)	\$37	0.2	8.2 miles
Q	13¢ (cents)	\$3	0.42	9.01 meters
R	16¢ (cents)	\$19	0.05	151.2 miles









**Unit 2**

**Family Fun Game Answer Key - All Levels**

<b>Problem Letter</b>				
<b>A</b>	10 ¢	\$46	$2 \times 5 = 10$ $5 \times 2 = 10$ $10 \div 2 = 5$ $10 \div 5 = 2$	1.25
<b>B</b>	10 ¢	\$59	$5 \times 4 = 20; 4 \times 5 = 20; 20 \div 4 = 5; 20 \div 5 = 4$	1.21
<b>C</b>	12 ¢	\$45	$3 \times 6 = 18; 6 \times 3 = 18; 18 \div 6 = 3; 18 \div 3 = 6$	0.22
<b>D</b>	11 cents	\$40	42	3/6 or 1/2 pizza
<b>E</b>	10 cents	\$90	8	5/8 cards
<b>F</b>	12 cents	\$85	45	3/8 way on bus
<b>G</b>	15 cents	\$37	5 blouses	\$108.55
<b>H</b>	14 cents	\$52	\$4 each	6.4 miles
<b>I</b>	18 cents	\$26	4 in each row	51.2 miles
<b>J</b>	6 + 4	$2 + 7 = 9$ $7 + 2 = 9$ $9 - 2 = 7$ $9 - 7 = 2$	0.76	9
<b>K</b>	5 + 5	$7 + 3 = 10$ $3 + 7 = 10$ $10 - 7 = 10$ $10 - 3 = 7$	0.08	7
<b>L</b>	1 + 9	$6 + 9 = 15$ $9 + 6 = 15$ $15 - 9 = 6$ $15 - 6 = 9$	0.19	9
<b>M</b>	10, 20, 30, 40, 50, 60, 70, 80, 90, 100	22 fish	$\frac{9}{10}$	14
<b>N</b>	9 ants	6 fish were left	$\frac{6}{10}$	42
<b>O</b>	5 bugs	10 tadpoles left	$\frac{4}{10}$	16
<b>P</b>	4 coyotes	$8 + 2 = 10$	(smallest) 0.33; (largest) 0.5	1/6
<b>Q</b>	7 sage leaves	$1 + 9 = 10$	11.99	1/6
<b>R</b>	$5 - 1 = 4$	$3 + 7 = 10$	Drew	5/8





Unit 3

Family Fun Game All Level Answer Key

Problem	 (pink)	 (blue)	 (green )	 (yellow)
<b>A</b>	15 dots Number 15	$7 + 6 = 13$ $6 + 7 = 13$ $13 - 7 = 6$ $13 - 6 = 7$	0.9	1.26
<b>B</b>	5 butterflies Number 5	$5 + 8 = 13$ $8 + 5 = 13$ $13 - 5 = 8$ $13 - 8 = 5$	0.06	1/6 of pizza
<b>C</b>	9 stars Number 9	$7 + 9 = 16$ $9 + 7 = 16$ $16 - 9 = 7$ $16 - 7 = 9$	0.4	32,770.77 miles
<b>D</b>	8 - (Can cut paper pennies for counters)	$8 + 2 = 10$	solution = 169	210.55
<b>E</b>	Count out 15 counters	$3 + 7 = 10$	solution = 143	0.75
<b>F</b>	Count out 10 counters	$5 + 5 = 10$	solution = 195	0.07
<b>G</b>	12 ants	$14 + 5 = 19$ Sue read 19 picture books.	0.45 (smallest); 0.75	0.05, 5%
<b>H</b>	10 leaves	$13 - 9 = 4$ Eddie picked up 4 fewer rocks.	0.7 (largest); 0.56	9
<b>I</b>	3 bugs	Divided into 2 equal or same size pieces.	0.08 (smallest); 0.9	18
<b>J</b>	2 eggs	4 tens and 5 ones 45	$4/6$ is closer to $2/3$ Solve with common denominator = 6 $2/3 = 4/6$ $1/2 = 3/6$	Draw and color tiles or use the paper tiles to show the ratio 4:1 show 4 tiles with one color and show 1 tile with a different color
<b>K</b>	10 eggs	3 tens and 9 ones 39	$1/4$ is closer to $1/8$ Solve with common denominator = 8 $1/4 = 2/8$ $1/2 = 4/8$	Draw and color tiles or use the paper tiles to show the ratio 5:3 show 5 tiles with one color and show 3 tile with a different color
<b>L</b>	8 were brown	6 tens and 6 ones 66	$1/2$ is closer to $6/8$ Solve with common denominator = 8 $1/2 = 4/8$ $1/4 = 2/8$	Draw and color tiles or use the paper tiles to show the ratio 3:7 show 3 tiles with one color and show 7 tile with a different color
<b>M</b>	Penny	5	$8/10 = 0.8$	3:4 and 3/4
<b>N</b>	Penny	12	$4/10 = 0.4$	6:1 and 6/1
<b>O</b>	Dime	46	$7/10 = 0.7$	3:5 and 3/5
<b>P</b>	8 (Blue) cubes On bottom	Ally had 33 cupcakes.	$5 \times 4 = 20$ $4 \times 5 = 20$ $20 \div 5 = 4$ $20 \div 4 = 5$	$x = 3$
<b>Q</b>	9 (red) ovals on right	12 cupcakes were not eaten.	24	$x = 9$
<b>R</b>	10 (red) hearts on left	17 cupcakes were left.	5	$x = 9$

Unit 4





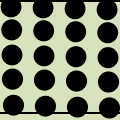
Family Fun Game All Level Answer Key

Problem Letter	 (pink)	 (blue)	 (green)	 (yellow)	
<b>A</b>	ate 14 ants	8 + 7 = 15 7 + 8 = 15 15 - 7 = 8 15 - 8 = 7	0.8	$6\frac{1}{4}$ or 6.25	
<b>B</b>	4 eggs were not broken	5 + 7 = 12 7 + 5 = 12 12 - 7 = 5 12 - 5 = 7	0.80	$\frac{2}{4}$ or 0.5 cups	
<b>C</b>	7 brown eggs	8 + 9 = 17 9 + 8 = 17 17 - 9 = 8 17 - 8 = 9	0.08	\$423,294,920.10	
<b>D</b>	Shows 10 counters and Number 10	38	8	2134.448	
<b>E</b>	Shows 15 counters and Number 15	23	63	\$7400 down payment	
<b>F</b>	Shows 12 counters and Number 12	38	49	10% water	
<b>G</b>	Dime	17	156 flowers	\$48.50 tax	
<b>H</b>	Penny	4 + 6 = 10	5 eggs	\$32.67 late fee	
<b>I</b>	Dime	3 + 7 = 10	21 pounds	\$375 earned	
<b>J</b>	2 pieces are the same size, fair share	Path B is longer.	$4\frac{3}{4}$	\$39.64 interest	
<b>K</b>	Attempts to cut card or paper in 2 equal pieces	Path A is shorter	$9\frac{1}{3}$	\$12.20 tip	
<b>L</b>	Halves OR 1 out of 2 equal pieces	A is shorter than B. B is longer than A.	$99\frac{2}{4}$	25% tip	
<b>M</b>	13 drops of water	49 jelly beans	See 8x4=32 facts below	no. labels flipped	
<b>N</b>	3 thorns	35 fewer	See 6x9=54 facts below	yes. equivalent fractions (scale factor of (x6)	
<b>O</b>	10 miles	52 miles	See 7x8=56 facts below	60 students:1 bus	
<b>P</b>	Set of 5 counters Set of 8 counters Mouse had more (3 more)	18 more	Equivalent to 1/3 can be 2/6 or 3/9 or 4/12....	30 notes hit $\frac{10}{11} = \frac{20}{22} = \frac{30}{33}$	
<b>Q</b>	Set of 12 counters Set of 11 counters Lion saw more 1 more	31 bananas	Equivalent to 1/2 can be 2/4 or 3/6 or 4/8....	$\frac{17}{12}$ or $1\frac{5}{12}$	
<b>R</b>	Set of 12 counters Set of 13 counters Mouse saw more 1 more	28 times	Equivalent to 1/4 can be 2/8 or 3/12 or 4/16....	$4\frac{1}{8}$	

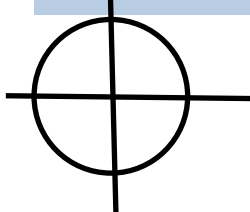
<b>M</b>	<b>N</b>	<b>O</b>
8 x 4 = 32	6 x 9 = 54	7 x 8 = 56
4 x 8 = 32	9 x 6 = 54	8 x 7 = 56
32 ÷ 8 = 4	54 ÷ 9 = 6	56 ÷ 8 = 7
32 ÷ 4 = 8	54 ÷ 6 = 9	56 ÷ 7 = 8

Unit 5

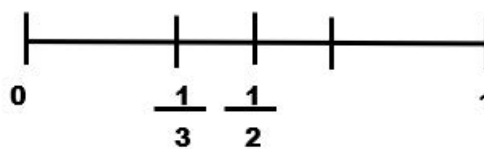
Family Fun Game All Level Answer Key

Problem Letter	 (pink)	 (blue)	 (green)	 (yellow)
A	15 beans counted Number Card 15	$2 + 8 = 10$	\$79.99	Make all decimals: $18.3 + 6.4 - 24.5$ Or make all fractions: $24.5 = 24 \frac{5}{10}$ Solution: 0.2 or $\frac{2}{10}$
B	9 beans counted Number Card 9	$1 + 9 = 10$	$\frac{5}{10}$ or $\frac{1}{2}$ (or any equivalent fraction)	Make all decimals or fractions, then add. $8.25$ or $8 \frac{1}{4}$
C	10 beans counted Number Card 10	$7 + 9 = 16$ $9 + 7 = 16$ $16 - 9 = 7$ $16 - 7 = 9$	$\frac{1}{3} = \frac{4}{12}$ $\frac{1}{4} = \frac{3}{12}$ least= $1 \frac{1}{3}$	\$0.01
D	2 cicadas	$8 + 7 = 15$ $7 + 8 = 15$ $15 - 7 = 8$ $15 - 8 = 7$		1,111,111,110
E	8 mice	$12 + 11 = 23$ 23 miles	63	54.657 grams salt
F	9 leaves	$15 + 9 = 24$ He read 24 books	7 groups of balloons	11.92% chemical B
G	PPenny	14	5 pennies per stack	\$27.45 tax
H	Dime	17	30 muffins	\$350 tip
I	Penny	13	0.02	\$90 interest
J	Top bar is more	one fourth OR One out of 4 equal pieces	0.75	\$230 charged
K	set of 9 dots is more	3 friends + me = 4 See circle below	See number line below	3 cups cashews
L	Bar on left is more	Lucy ate 4 cookies.	8.99	10% tip
M	Attempts to cut card or paper into approximately 2 equal pieces	$12 - 8 = 4$ Bob walked 4 miles.	$\frac{1}{4} = 0.4$	False. Green uses (x 5) to get 45, but Blue uses (x 4) to get 40. The scale factors are different.
N	Halves, or 1 out of 2 equal pieces	7	0.07	True. The scale factor is the same for both pounds & dollars: ( $\div 4$ ) or ( $\times \frac{1}{4}$ ).
O	Both pieces are the same size	17		1200 cotton balls in 1 bag
P	7 flowers	65		She would deliver 48 babies in 8 shifts
Q	4 flowers	80		$\frac{12}{12}$ or 1 whole
R	0 frogs	85		Use 15 for the denominator and subtract for the solution $= 2 \frac{7}{15}$

K. Fair Share for 3 friends and me



K. Number Line:

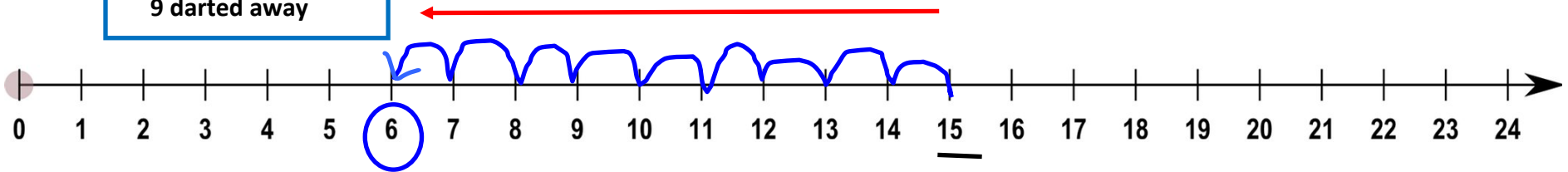




**Problem N.**

15 fish  
9 darted away

**Sample Solutions — Unit 2**



**Problem J.**

2, 7, 9

**Fact Families**

**Problem L.**

6, 9, 15

A house-shaped diagram with a yellow circle containing the number 9 in the peak. Two yellow circles containing the numbers 2 and 7 are on the roof. Below the roof are four horizontal lines for equations:

$$2 + 7 = 9$$

$$7 + 2 = 9$$

$$9 - 7 = 2$$

$$9 - 2 = 7$$

A house-shaped diagram with a light orange circle containing the number 15 in the peak. Two light orange circles containing the numbers 6 and 9 are on the roof. Below the roof are four horizontal lines for equations:

$$6 + 9 = 15$$

$$9 + 6 = 15$$

$$15 - 6 = 9$$

$$15 - 9 = 6$$



Problem N.

TENS	ONES
	$15$ 
$10$	$5$
	$9$
	$6 \text{ fish}$

**Problem N.** Ask students

- How to write the 15 fish swimming? **(1 ten, 5 ones)**
- How to write the 9 fish that dart away? **(9 ones)**
- How many are left? Add or Subtract? **(can count up from 9 to 15 or Subtract)**

**If subtracting:**

How do we subtract 5 ones minus 9 ones?

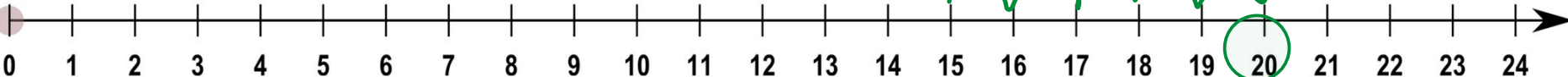
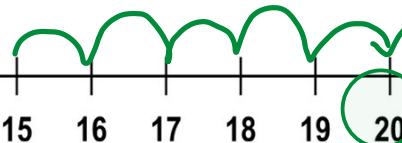
- Ask student to draw blocks or dots for the 5 ones and 9 ones.
- The 5 ones are part of the number 15. Can break the 1 ten into 10 ones and move them all to the Ones place.
- Student can draw the 10 new blocks in the ones place that join the 5.
- Cross of the 9 blocks one at a time and cross off 9 blocks from the top.
- How much are left? **(6)**
- **$15 - 9 = 6$  fish**

**(Instead of drawing tens and ones, students can use the paper \$10 and \$1 for the tens place and ones place.)**

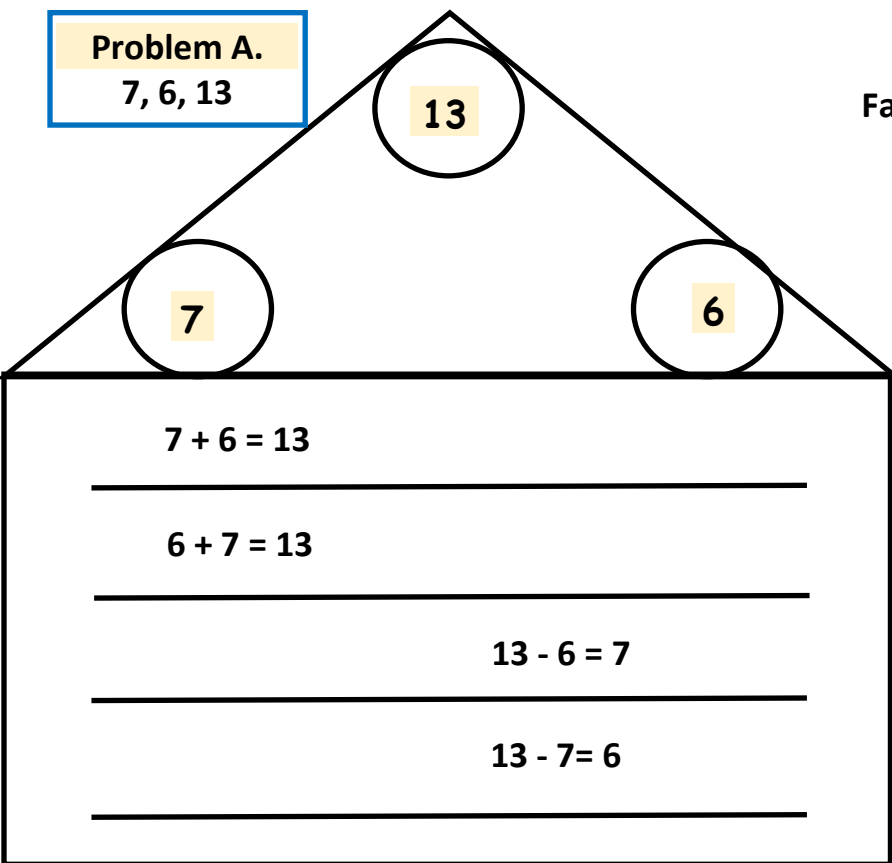


### Samples of ways to solve problems — Unit 3

**Problem 5.**  
Read at school-15 books  
Read at home- 5 books

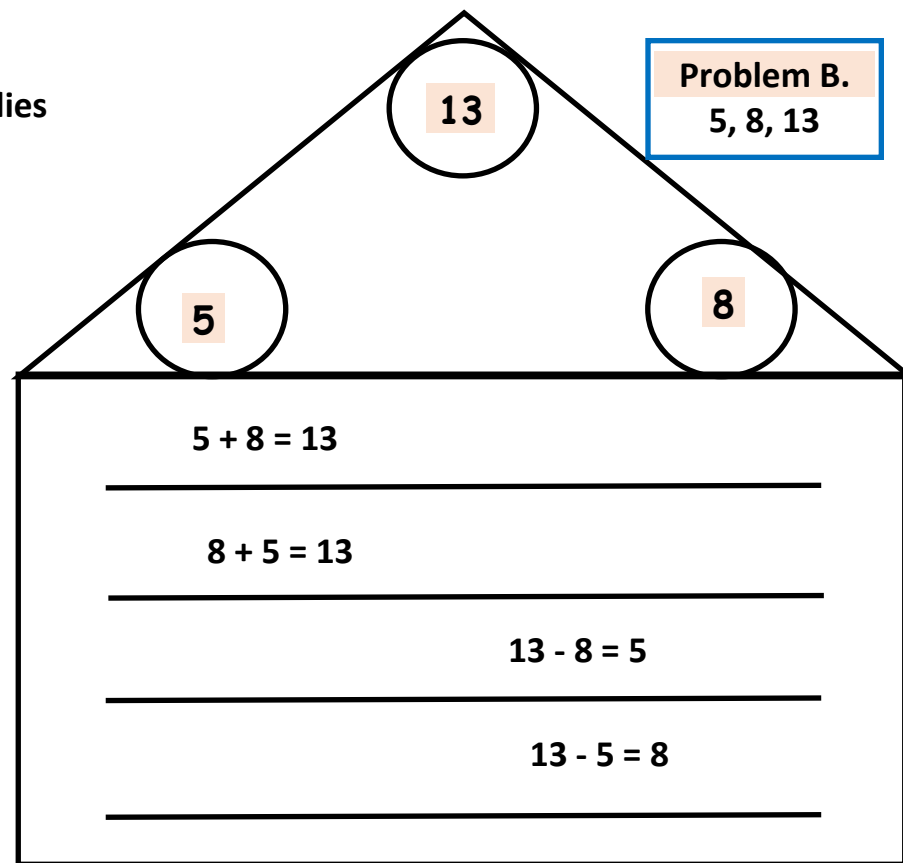


**Problem A.**  
7, 6, 13



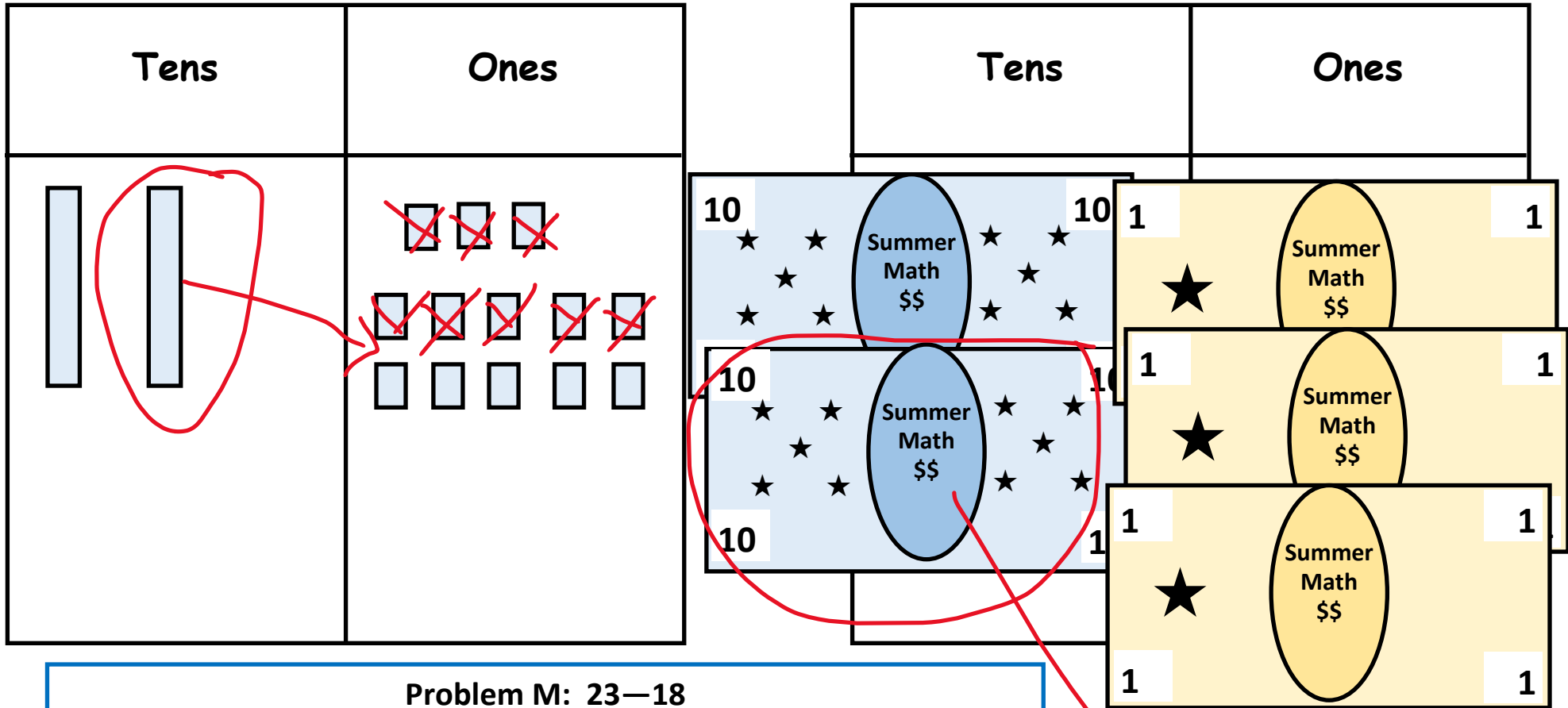
Fact Families

**Problem B.**  
5, 8, 13





Sample Solutions – Unit 3. Students can use this page to draw pictures or use the paper play money from the Student Packs or draw tallies to represent the numbers and actions of trading/regrouping.



### Problem M: 23—18

How many TENS are in **23**? Draw 2 long rectangles in the TENS place. How many ONES are in **23**? **(3)** Draw 3 short squares in the ONES place.

How many ONES in **18**? **(8)** Can the student subtract 8 ONES away for the 3 ONES? No, need to trade/regroup/move 1 TEN to the ONES place. That means breaking it into ONES. How many ONES are there now? **(3 + 10 = 13)** Can student take away 8? (cross out) How many ONES are left? **(7)**

**23** has 1 TEN remaining in the TENS place. How many TENS does **18** have? **(1)** Subtract **(1-1 = 0)** How many TENS are left? **(0)**

(write equation and have student fill in the answer: [ **23 - 18 = 7** ])

If using the paper money, change the 1 TEN into 10 ONES



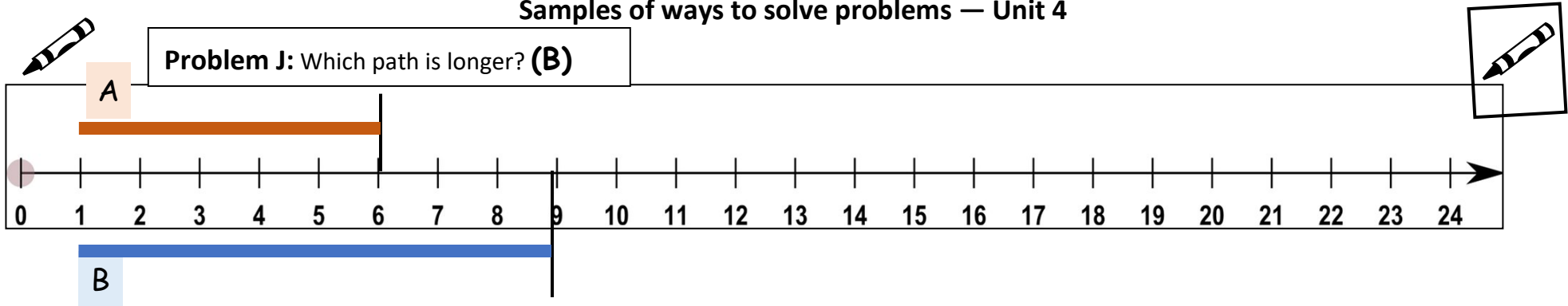


Problem N: 41 – 29

TENS	ONES
1	2

TENS	ONES
- 2	9
1	2

Samples of ways to solve problems — Unit 4



**Problem A.**  
8, 7, 15

15

8

7

$8 + 7 = 15$

---

$7 + 8 = 15$

---

$15 - 8 = 7$

---

$15 - 7 = 8$

---

Fact Families

**Problem C.**  
8, 9, 17

17

8

9

$8 + 9 = 17$

---

$9 + 8 = 17$

---

$17 - 8 = 9$

---

$17 - 9 = 8$

---

Students can use this page to draw pictures or use the paper play money from the Student Packs or draw tallies to represent the numbers and actions of trading/regrouping.



Tens	Ones

**Problem G:  $55 - 38 = ?$**

How many TENS are in **55**? Draw 5 long rectangles in the TENS place. How many ONES are in **55**? Draw 5 short squares in the ONES place.

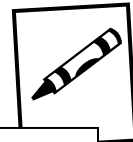
How many ONES in **38**? (8) Can the student subtract 8 ONES away for the 5 ONES? No, need to trade/regroup/move 1 TEN to the ONES place. That means breaking it into ONES. How many ONES are there now? ( $5 + 10 = 15$ ) Can student take away 8? (cross out) How many ones are left? (7)

**55** has 4 TENS remaining in the TENS place. How many TENS does **38** have? (**3**) Subtract. ( $4 - 3 = 1$ ) How many TENS are left? (**1**) What is the final answer? (**17**)

Write equation and have student fill in the answer: [ $55 - 38 = 17$ ].

**Or ask the student use the play money instead of drawing the rods and units.**

Change the 1 TEN into 10 ONES



<b>Problem N.</b>	
<b>TENS</b>	<b>ONES</b>

**35 fewer small camels**

Big Camels – 62  
 Small Camels – 27  
 How many fewer small camels?

Do you want to count up from 27 to 62 or subtract?  
**If Subtracting:**

- What is the larger number? **(62)**
- What is the equation we use to solve?  
**(62 – 27 = ?)**
- How many TENS are in 62? **(6)** Draw 6 long rectangles in the TENS place.
- How many ONES are in **62**? **(2)** Draw 2 short squares in the ONES place.

**Subtracting ONES:**  
 What do we need to do to subtract 7 ONES from 2 ONES?

- Trade/regroup/move 1 TEN to the ONES place. That means breaking it into ONES. How many ONES are there now? **(2 + 10 = 12 )**
- How many ones are left from 12 - 7? **(5)**

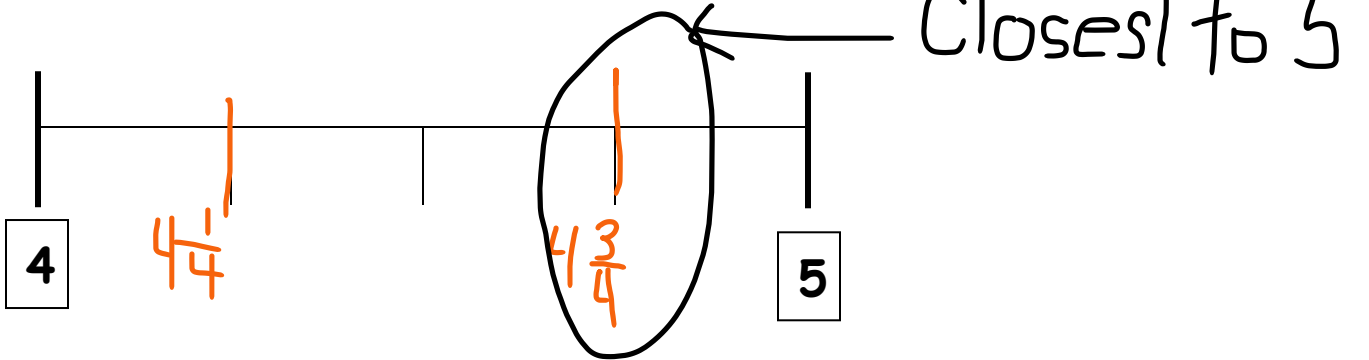
**Subtracting TENS**

- How many TENS are left in the TENS place for 62? **(6 – 1 = 5)**
- How many TENS does the number 27 have? **(2)**
- Subtract. How many TENS are left? **(5 – 2 = 3)**
- What is the final answer? **(35)**

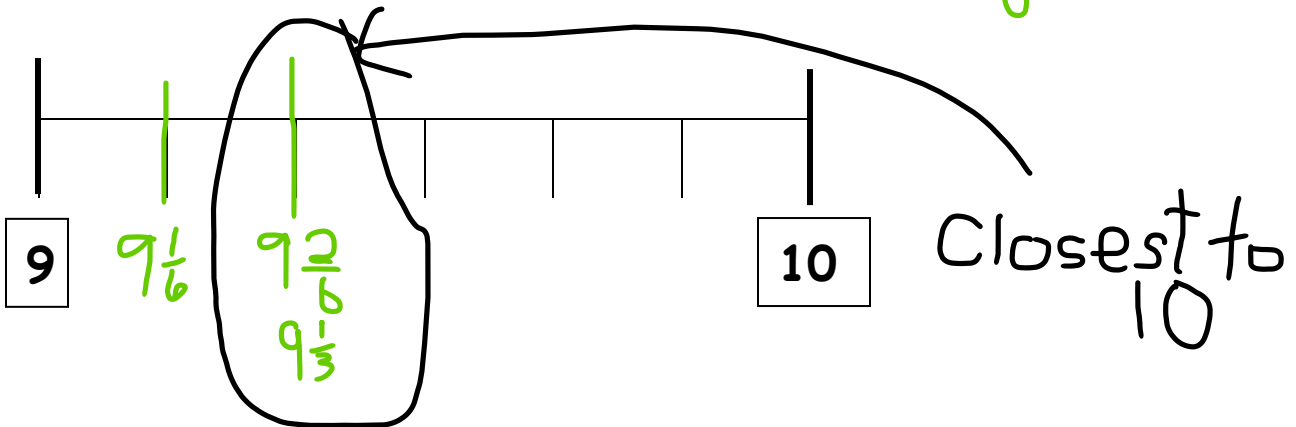
Write equation and have student fill in the answer:  
**[62 – 27 = 35 fewer].**

Note: The student use the play money instead of drawing the rods and units.

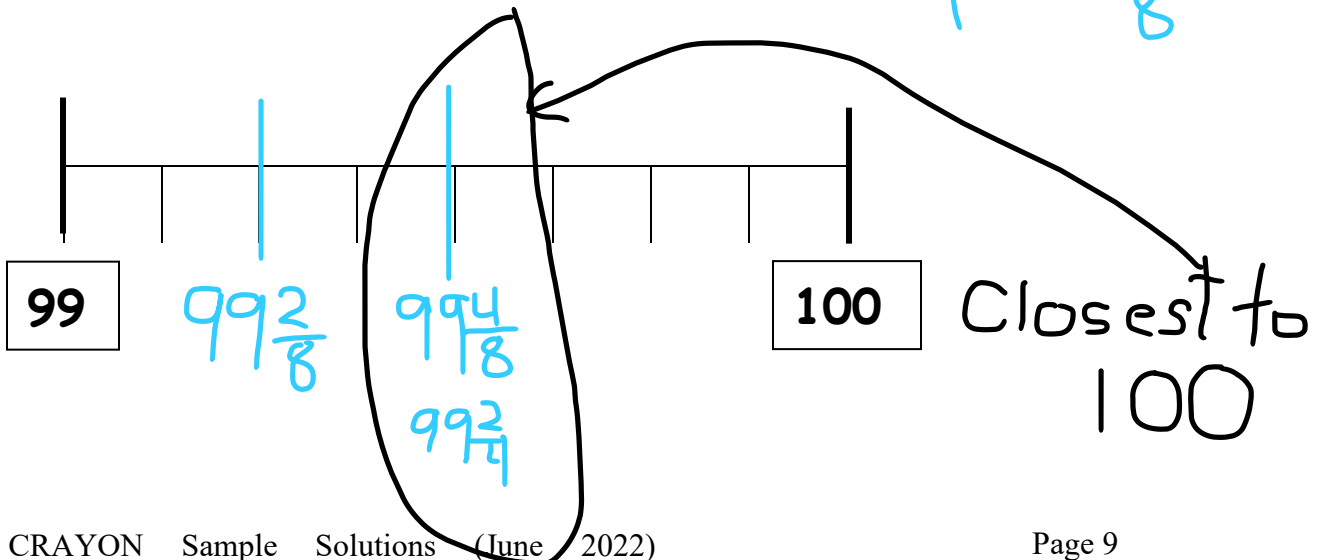
Problem J. Which number is closest to 5?



Problem K. Which number is closest to 10?  $\frac{1}{3} = \frac{2}{6}$

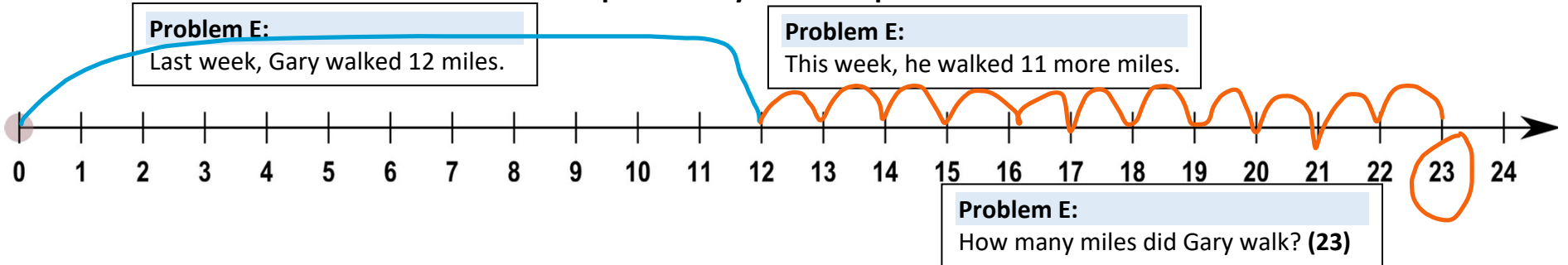


Problem L. Which number is closest to 100?  $\frac{2}{4} = \frac{4}{8}$

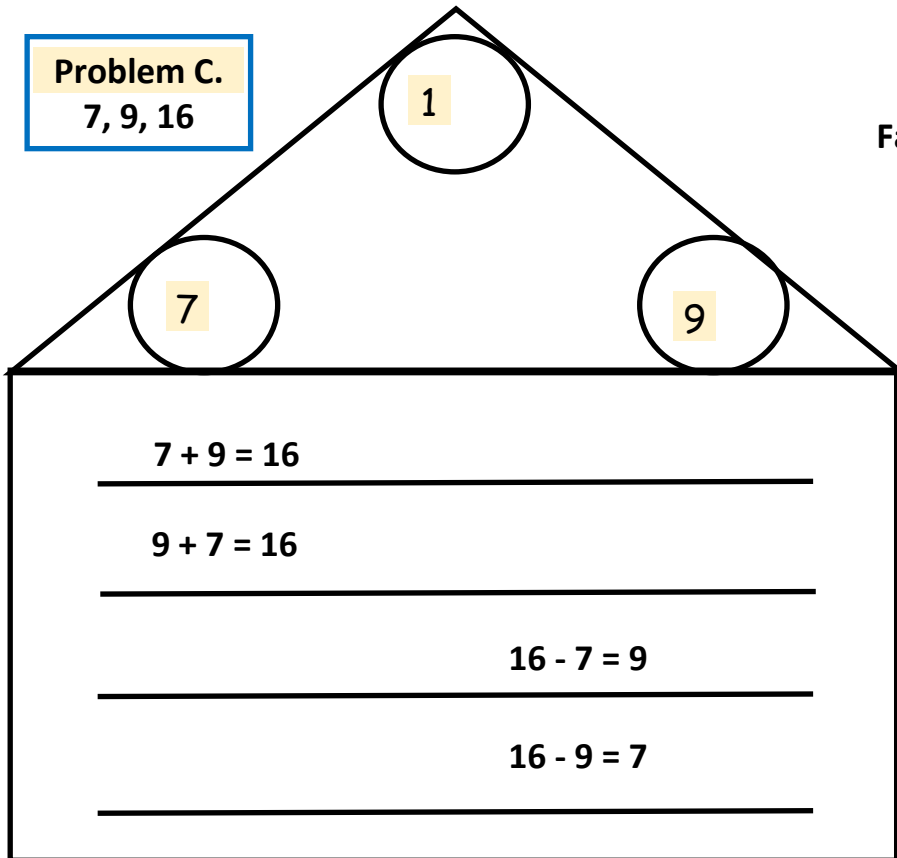




### Samples of ways to solve problems — Unit 5

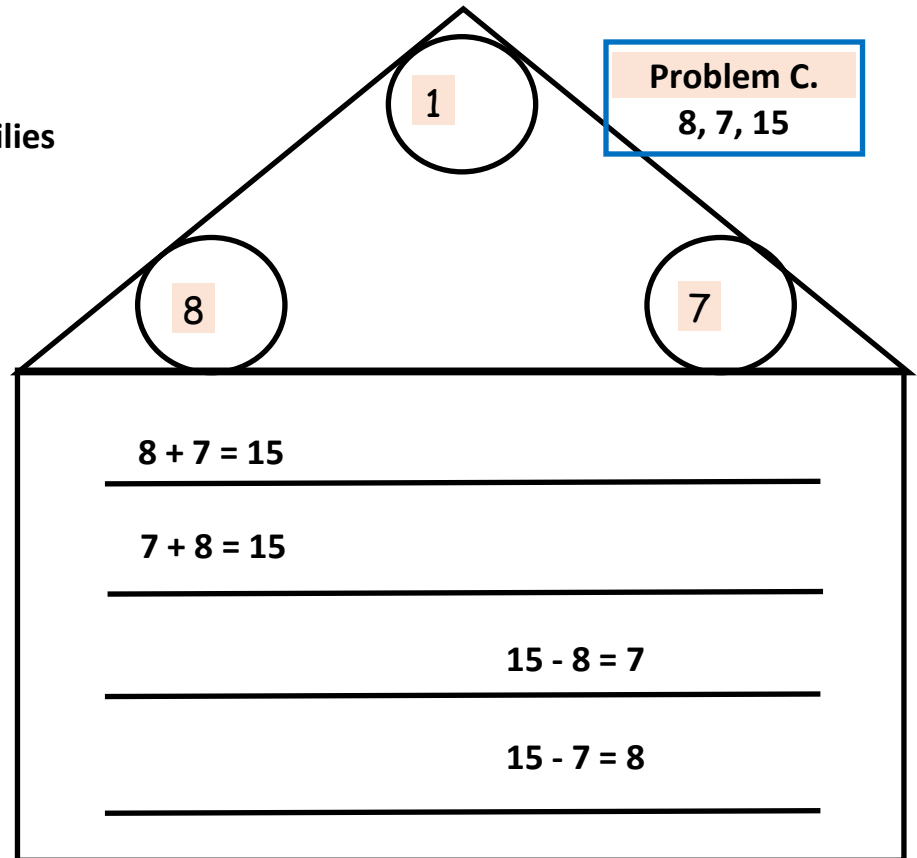


**Problem C.**  
7, 9, 16



### Fact Families

**Problem C.**  
8, 7, 15



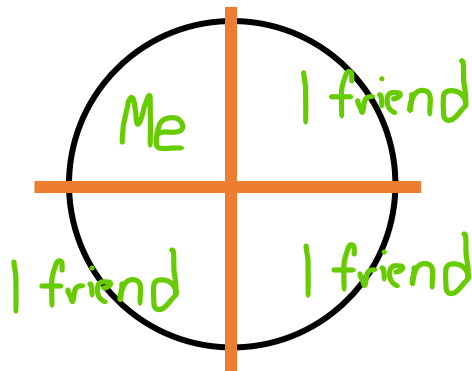
Students can use this page to draw pictures or use the paper play money from the Student Packs or draw tallies to represent the numbers and actions of trading/regrouping.

Problem F. Tens	Ones
	<p>5</p>
<p>+</p>	<p>9</p>
<hr/> <p>2</p>	<hr/> <p>4</p>

### Problem K.

Fair share a circle for yourself and 3 friends.

- Students often skip over themselves having a fair share, too.



### Problem F: David read 15 Books. Then he read 9 more

#### How many books does David read first? (15)

- How many TENS are in 15? (1) Draw 1 long rectangle in the TENS place.
- How many ONES are in 15? (5) Draw 5 short squares in the ONES place.

#### What changes in the problem? (David reads 9 more books)

- Are we adding or removing books? (**adding**)
- How many are we adding? (9)
- Does 9 go in the ONES place or TENS place? (ONES place)

#### Now we are ready to add.

- Let's start with the ONES place.
- How many ONES do we have? ( $5 + 9 = 14$ )

#### Whoa, 14 has TENS and ONES.

- Let's bundle 10 ONES and move them to the TENS column. (circle the 10 ONES & draw an arrow to show the move.)
- How do we show the 10 ONES are bundled into 1 TEN? (**1 long rectangle**)

#### How many ONES are left? (4)

- Write (4) at the bottom of the ONES column.

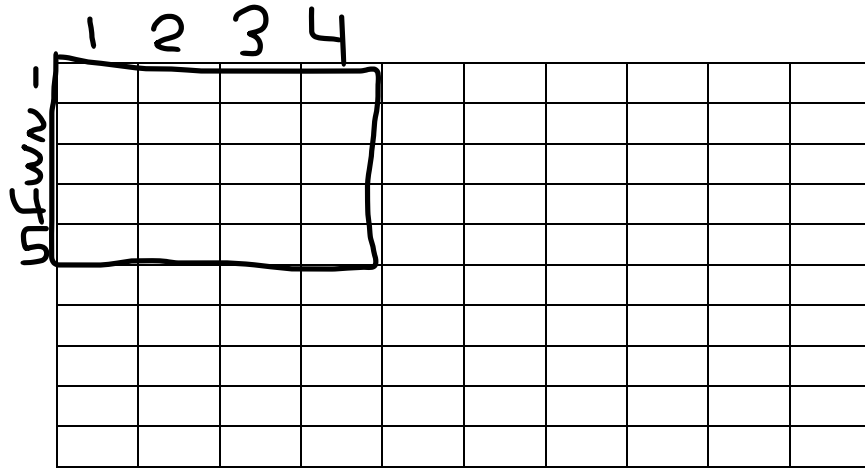
#### How many TENS do we have now? (2)

- Write (2) at the bottom of the TENS column. (2 TENS = 20)
- How do we read this number, with (20) TENS and (4) ONES? (**twenty-four**).

(Write the equation as talking for student to complete)

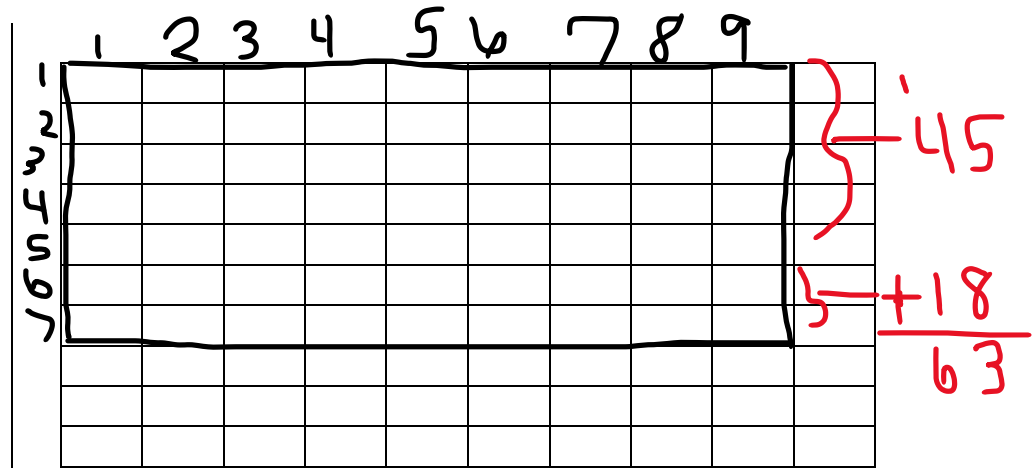
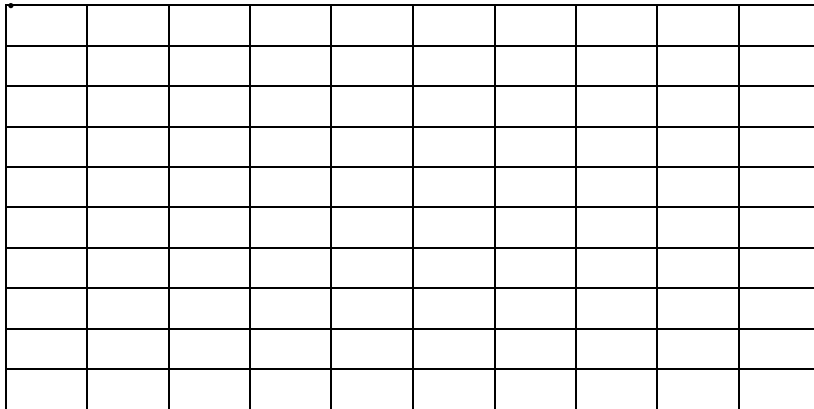
[15 books + 9 more books = 24 books]

David read 24 books.



**D. Draw an array for 5 x 4**

Do you want to make 4 rows with 5 columns or 5 rows with 4 columns?... Draw. Not required from the question, but still ask: What does 5 x 4 equal? (20)

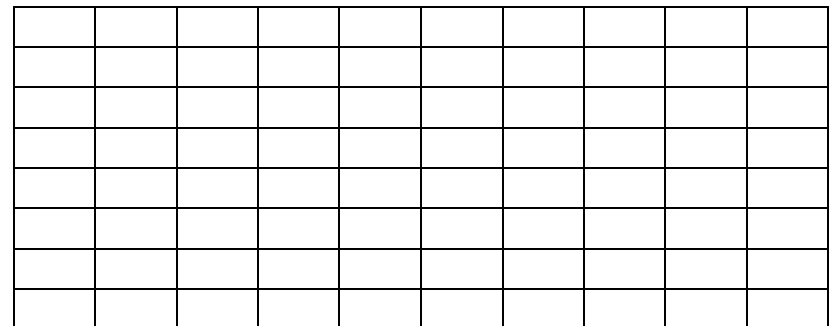


**E. What's missing?  $\_\_ \div 7 = 9$**  (if student needs help responding)

What is missing? The row or product total? (product/total)  
 How can we use the 7 and 9 to find out the product or total? (multiply 7 x 9; skip count; make an array?) Do you know 5 x 9? (45) We can break apart the 7 into 5 plus what? (2) Do you know what 2 x 9 is?

$$\begin{array}{l} 5 \times 9 = 45 \\ 2 \times 9 = 18 \end{array} \quad \text{Add: } \begin{array}{l} 45 = 40 + 5 \\ + 18 = 10 + 8 \end{array}$$

$$\begin{array}{l} 50 + 10 + 3 = 60 + 3 \\ = 63 \end{array}$$





ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$

**B. Start with decimal and write the fraction: 0.5** How do we read this decimal? (5 tenths) How do you write 5 tenths as a fraction?  $\frac{5}{10}$

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$
0	5	00

I.  $\frac{2}{100} = 0.02$  How many ONES? (0)  
How many tenths? (0)  
How many hundredths? (units) (2)

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$
	0.7	5

**J. Write decimal for  $\frac{3}{4}$ .**

We cannot go straight to a decimal from fourths. We need another step.

Do “fourths” have an equivalent fraction to tenths? Does  $4 \times (\text{anything}) = 10$ ? (no)

Do fourths have an equivalent fraction to hundredths? Does  $4 \times (\text{anything}) = 100$ ? How about 4 quarters? Do 4 quarters make \$1.00? or 100 cents? (yes)

Since  $4 \times 25 = 100$ , let's figure out how many hundredths 3 fourths make.

$$\frac{3}{4} \times \frac{25}{25} = \frac{75}{100} = 0.75$$

How do you write the decimal for 75 hundredths? (0.75)



**Problem O**

ONES	tenths	hundredths
0	                   	0000 0          5

$\frac{15}{100} = ?$  How many ONES? (0)  
15 hundredths split between the tenths place and the hundredths place.

**Problem P**

ONES	tenths	hundredths
0	                       	2

$\frac{2}{10} = 0.2$  How many ONES? (0) How many tenths?(2)

**Problem Q**

ONES	tenths	hundredths
0	                               	00          4 2

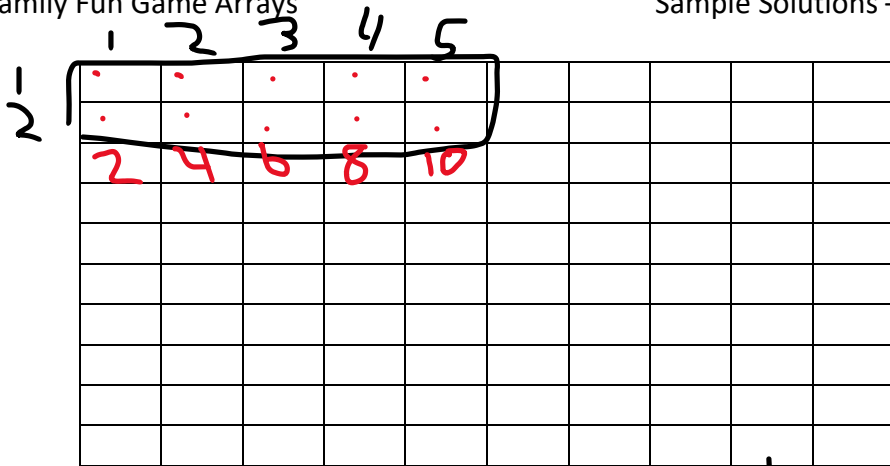
$\frac{42}{100} = 0.42$  How many ONES? (0)  
42 hundredths split between the Tenths place and hundredths Place.

**Problem R**

ONES	tenths	hundredths
0	                   	00000          5

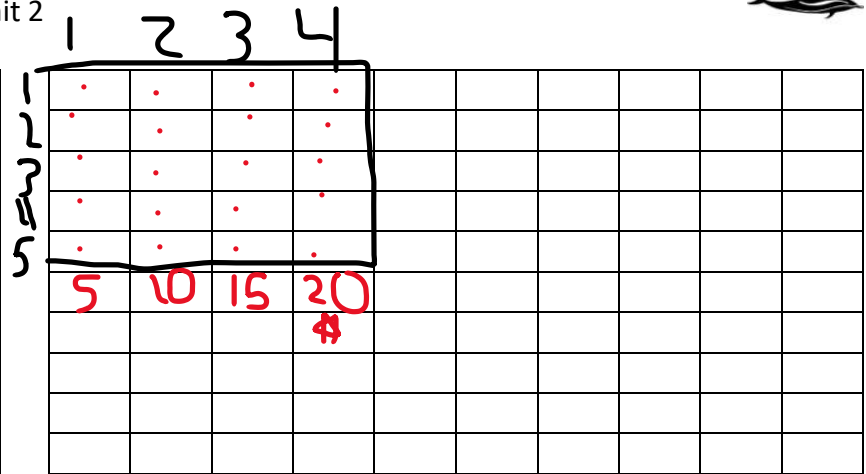
$\frac{5}{100} = 0.05$  How many ONES? (0) TENTHS? (0)  
HUNDRETHS? (5)





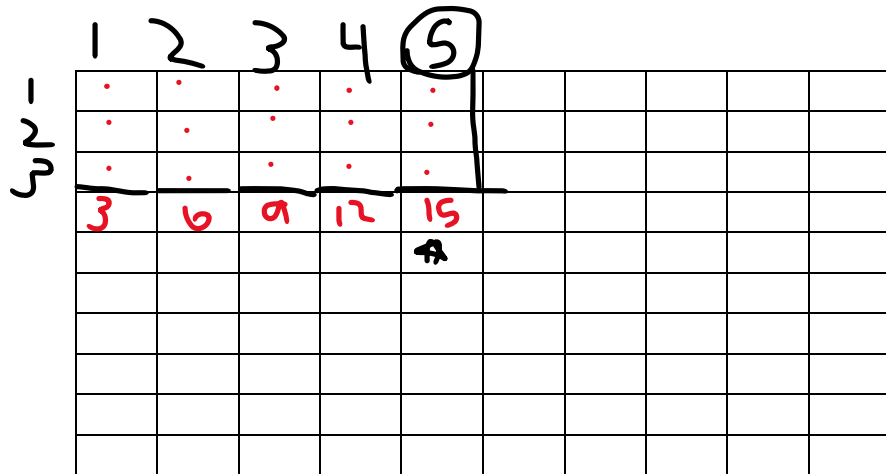
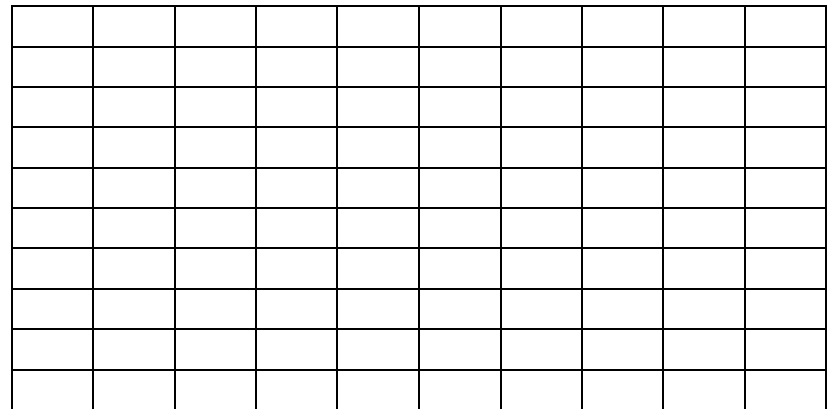
2 rows x 5 columns  
 $2 \times 5 = 10$

**Problem A:**  
 Fact Family Array



**Problem I:**  
 20 ants  
 5 equal rows  
 How many in each row?

$20 = 5 \times 4$   
 4 ants



3 buttons = 3 rows  
 skip count to 15  
 5 blouses

$3 \times 5 = 15$

**Problem G:**  
 Kayla – 15 buttons  
 3 buttons per blouse  
 How many blouses?





**Problem J**

ONES	tenths	hundredths
0		

$$\frac{76}{100} = 0.76$$

How many ONES? (0)  
 76 hundredths split between tenths Place (7) and hundredths place (6).

**Problem L**

ONES	tenths	hundredths
0		

$$\frac{19}{100} = 0.19$$

How many ONES? (0)  
 How many tenths?  
 How many hundredths? (Units)

**Problem K**

ONES	tenths	hundredths
0		

$$\frac{8}{100} = 0.08$$

How many ONES? (0) How many tenths?(0)  
 How many hundredths? (units) (8)

**Problem P**

ONES	tenths	hundredths
0		
0		

Show 0.5 and 0.33. Which has more: 5 tenths or 3 tenths + 3 hundredths? How would you write smallest to largest?





**Problem A.**

ONES	tenths	hundredths
0	 9	

$$\frac{9}{10} = \boxed{0.9}$$

How many ONES? (0)  
 How many tenths? (9)  
 How many hundredths? (0)

**Problem B.**

ONES	tenths	hundredths
0	0	 6

$$\frac{6}{100} = \boxed{0.06}$$

How many ONES? (0) How many tenths?(0)  
 How many hundredths? (units) (8)



**Problem D:** Solving 13 by 13 with an array and another way.

	1	2	3	4	5	6	7	8	9	10	11	12	13		
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															

**Graphing explained:**

$$13 \times 13 = (10 + 3) \times (10 + 3)$$

(When graphing, start with the largest place value, the TENS place in this example.)

10 rows x 10 columns = 100 units

3 rows x 10 columns = 30 units

3 columns x 10 rows = 30 units

Count the single squares left = 9 units

$$100 + 30 + 30 + 9 =$$

$$100 + 60 + 9 = \mathbf{169 \text{ units}}$$

**Another method to multiply.** (without the shortcut of carrying or regrouping)

Note: Students can carry & regroup and other methods of working it out.

**Think:**  $13 = 10 + 3$

$$\begin{array}{r}
 13 \quad (\text{Start with the ONES place}) \\
 \times 13 \\
 \hline
 9 \quad (3 \text{ ones} \times 3 \text{ ones} = 9) \\
 30 \quad (3 \text{ ones} \times 1 \text{ ten} (10) = 30) \\
 30 \quad (1 \text{ ten} (10) \times 3 \text{ ones} = 30) \\
 + 100 \quad (1 \text{ ten} (10) \times 1 \text{ ten} (10) = 100) \\
 \hline
 \mathbf{169}
 \end{array}$$

**Problem E:** Solving 11 by 13 with an array and another way.



	1	2	3	4	5	6	7	8	9	10	11	12	13		
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															

**Graphing explained:**

$$11 \times 13 = (10 + 1) \times (10 + 3)$$

(When graphing, start with the largest place value, the TENS place in this example.)

10 rows x 10 columns = 100 units

1 rows x 10 columns = 10 units

3 columns x 10 rows = 30 units

Count the single squares left = 3 units

$$100 + 10 + 30 + 3 =$$

$$100 + 40 + 3 = \mathbf{143 \text{ units}}$$

**One other method to multiply.** (without the shortcut of carrying or regrouping)

Note: Students can also carry & regroup and other methods of working it out.

**Think:**  $11 = (10 + 1)$   
 $13 = (10 + 3)$

11	(Start with the ONES place)
<u>X 13</u>	
3	(3 ones x 1 one = 3)
30	(3 ones x 1 ten (10) = 30)
10	(1 ten (10) x 1 one = 10)
<u>+ 100</u>	(1 ten (10) x 1 ten (10) = 100)
<b>143</b>	

**Problem F: Solving 13 by 15 with an array and another way.**



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															

**Graphing explained:**

$$13 \times 15 = (10 + 3) \times (10 + 5)$$

(When graphing, start with the largest place value, the TENS place in this example.)

10 rows x 10 columns = 100 units

3 rows x 10 columns = 30 units

5 columns x 10 rows = 50 units

Count the single squares left = 15 units

$$100 + 30 + 50 + 15 =$$

$$100 + 80 + 15 =$$

$$100 + 95 = \mathbf{195 \text{ units}}$$

**One other method to multiply.** (without the shortcut of carrying or regrouping)

Note: Students can also carry & regroup and other methods of working it out.

**Think:**  $13 = 10 + 3$   
 $15 = 10 + 5$

15	(Start with the ONES place)
$X \ 13$	
15	(3 ones x 5 ones = 15)
30	(3 ones x 1 ten (10) = 30)
50	(1 ten (10) x 5 ones = 50)
+ 100	(1 ten (10) x 1 ten (10) = 100)
<b>195</b>	



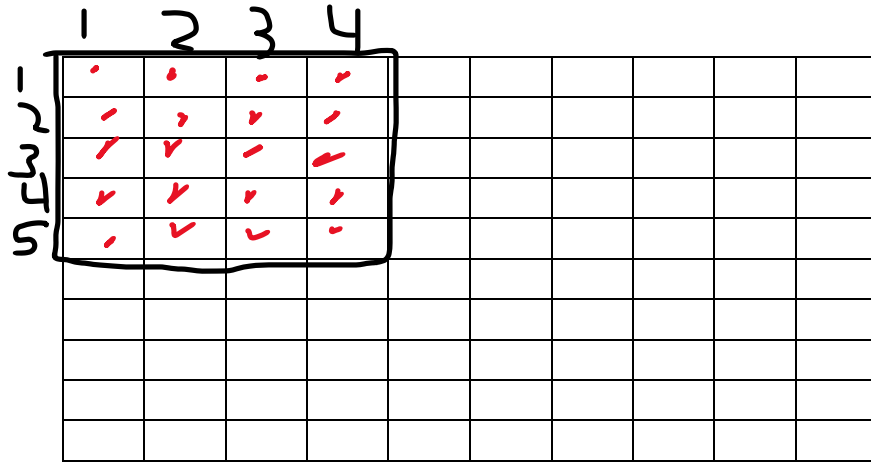


**Problem H. Arrange (0.56 and 0.7 from largest to smallest)**

- A student might look at the numbers, ignore the decimal point and think “56” is larger than “7”
- Have student draw the decimals or count out the paper rods for tenths and draw the hundredth place.
- The ONES place has the largest value – does one number have more ONES? (**no**)
- The tenths place has the next largest value – does one number have more tenths? (**yes – 0.7 – that is the larger decimal**)

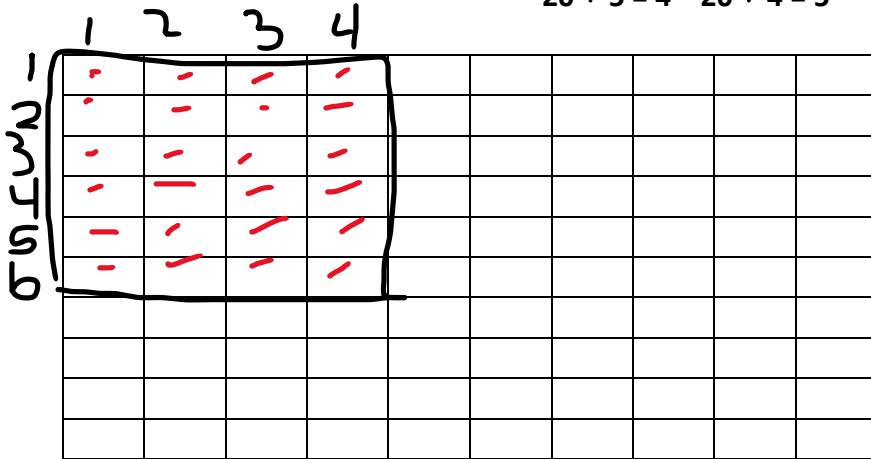
ONES	tenths	hundredths
<p style="text-align: center; font-size: 2em;">0</p>	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> </div> <p style="text-align: center; font-size: 2em;">5</p>	<div style="display: flex; justify-content: space-around; margin-bottom: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> </div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px; margin-left: 10px;"></div> <p style="text-align: center; font-size: 2em;">6</p>

ONES	tenths	hundredths
<p style="text-align: center; font-size: 2em;">0</p>	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> </div> <p style="text-align: center; font-size: 2em;">7</p>	



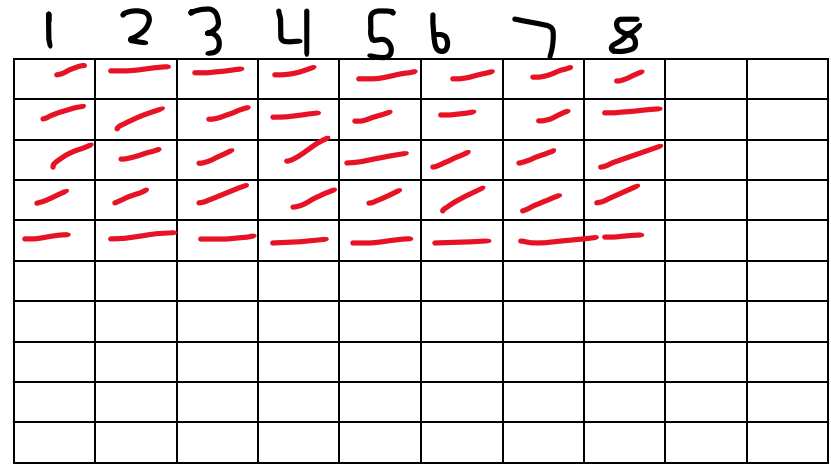
**Problem P.** Write the Fact Family for this array.

How many rows? (5) How many columns? (4) How many units altogether inside ? (20) Fact Family:  $5 \times 4 = 20$   $4 \times 5 = 20$   
 $20 \div 5 = 4$   $20 \div 4 = 5$



**Problem Q.**  $? \div 6 = 4$  (if student needs to figure this out)

What starts the Fact Family in division? (The product/total # inside the array) What are 6 & 4 in the array? (one is the # of rows; the other is the # of columns.) What do you want to use for the rows? 6 or 4? Set up the array and count the units inside. What is the missing number? (24) ( $24 \div 6 = 4$ )

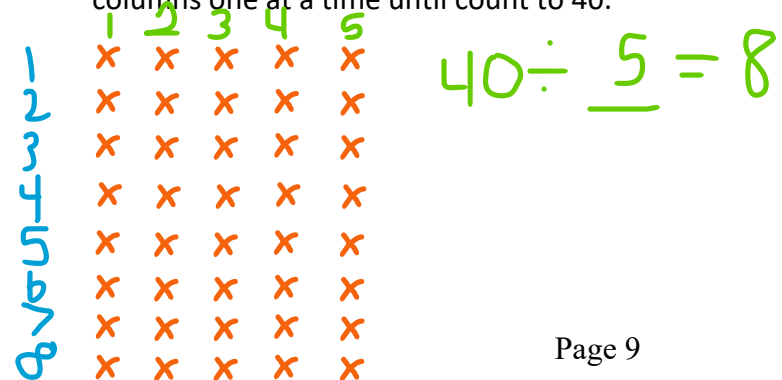


**Problem R.**  $40 \div ? = 8$  (if student needs to figure this out)

Do we have the Product/ total # inside the array for this Fact Family? (yes)

So in an array, Do you want the "8" to be the rows or columns?

- **If student chooses columns**, have student number the columns 1 - 8. (see sample above)
- Now figure out how many rows by counting the units in each row, or skip counting by 8's up to 40.
- How many rows are needed? (5) The missing number is 5 ( $40 \div 5 = 8$ )
- **If the student chooses ROWS**, then have the student number the rows 1 - 8 and go and then fill in the columns one at a time until count to 40.





## Problem A.

ONES	tenths	hundredths
0	.	8

$$\frac{8}{10} = 0.8$$

How many ONES? (0)  
 How many tenths? (8)  
 How many hundredths? (0)

## Problem B.

ONES	tenths	hundredths
0	.	8
		0

$$\frac{80}{100} = 0.80$$

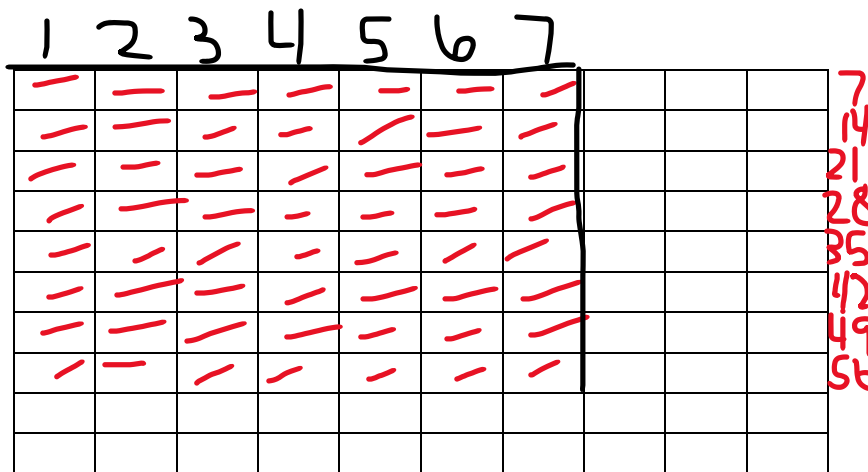
How many ONES? (0) How many tenths?(8)  
 How many hundredths? (units) (0)

## Problem C.

ONES	tenths	hundredths
0	.	0
	0	8

$$\frac{8}{100} = 0.08$$

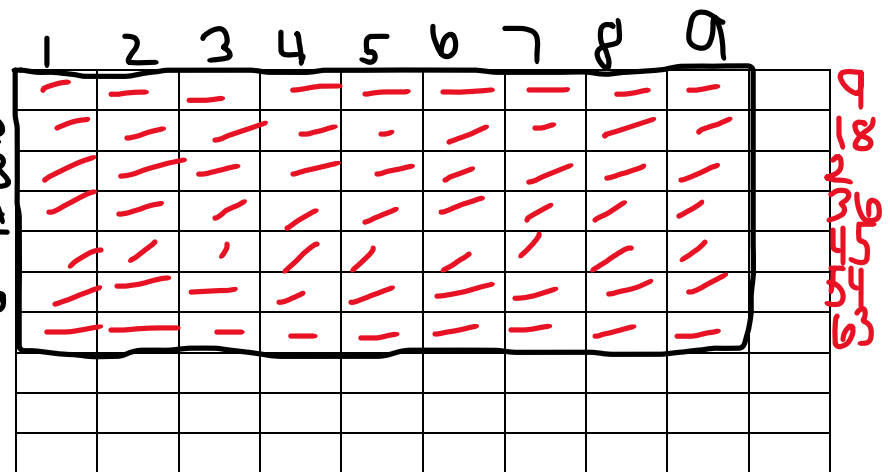
How many ONES? (0)  
 How many tenths? (0)  
 How many hundredths/units? (8)



**Problem D.**  $\_\_ \times 7 = 56$  (If student needs assistance)

Thinking about Fact Families and arrays, what is missing? The # for rows or the total product? (**row**)

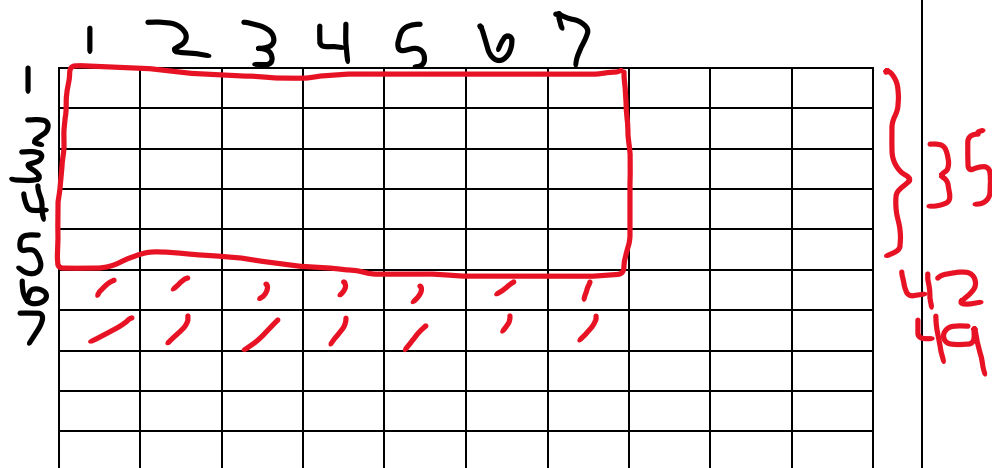
- Start an array with 7 columns.
- Need to figure out how many rows by counting each unit in each row.
- What total are we trying to reach? (**56**)
- How many rows did we need to get to 56? (**8**)
- The missing number is **8**. ( **$8 \times 7 = 56$** )



**Problem E.**  $\_\_ \div 7 = 9$  (if student needs help)

Thinking about Fact Families and arrays, what is missing? The # for rows or the total product? (**total product**).

- Which number do you want to use for the rows? 9 or 7? (**this sample uses 7 rows**)
- Number the rows and columns, then count.
- The product total is? (**63**)  **$63 \div 7 = 9$**



**Problem F.**  $\_\_\_ \div 7 = 7$  (if student needs help)

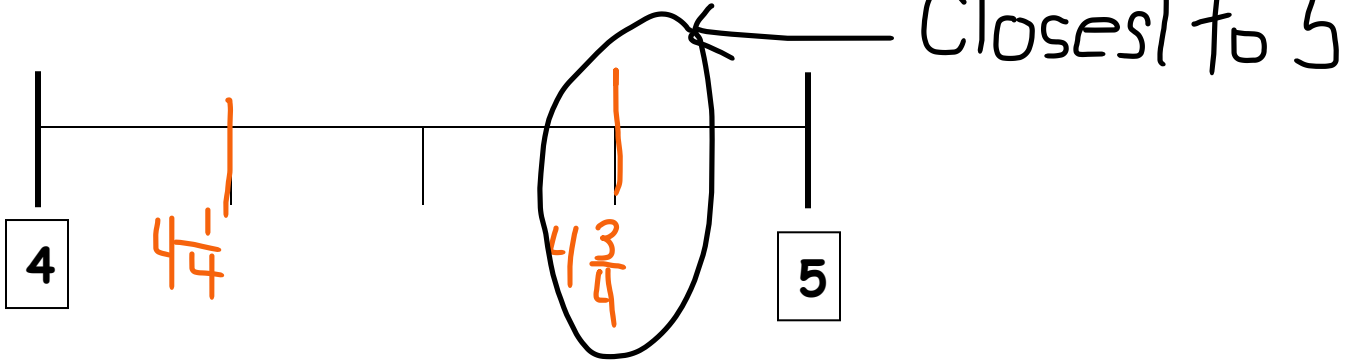
Thinking about Fact Families and arrays, what is missing? The # for rows or the total product? (total product)

- What number do you want for the rows? ( 😊 **has to be 7!**)
- Number the rows and columns, then count.
- **(depending on the student)** Is there a fast way to know 5 x 7, so we don't have to count every square?
- Do you know what 5 x 7 is? Or count by 5's to figure it out?
- So we can just box 5 x7 because we know that 5 x 7 equals...? **(35)**
- And start counting from 35 for the last two rows.
- The total is... **(49)**  $49 \div 7 = 7$

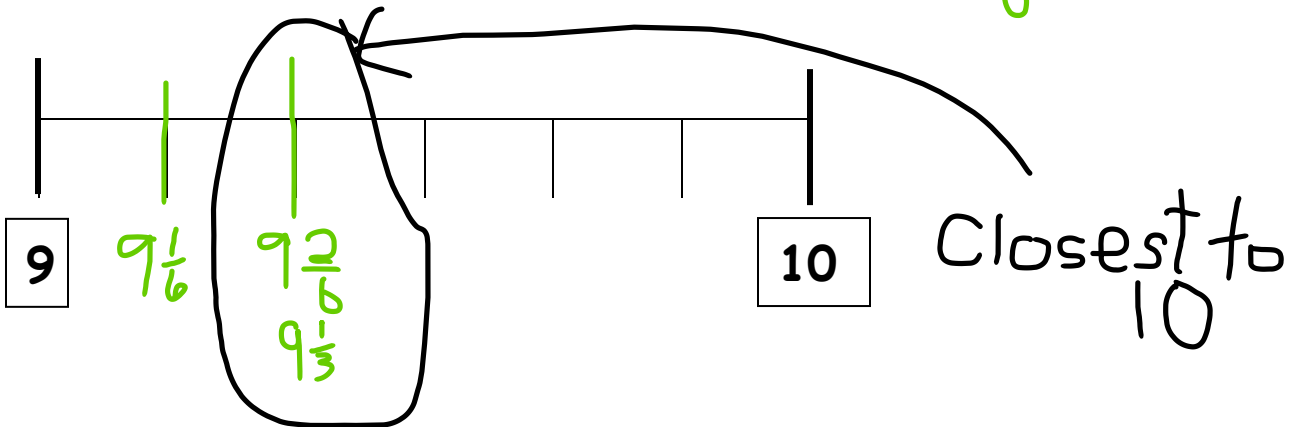




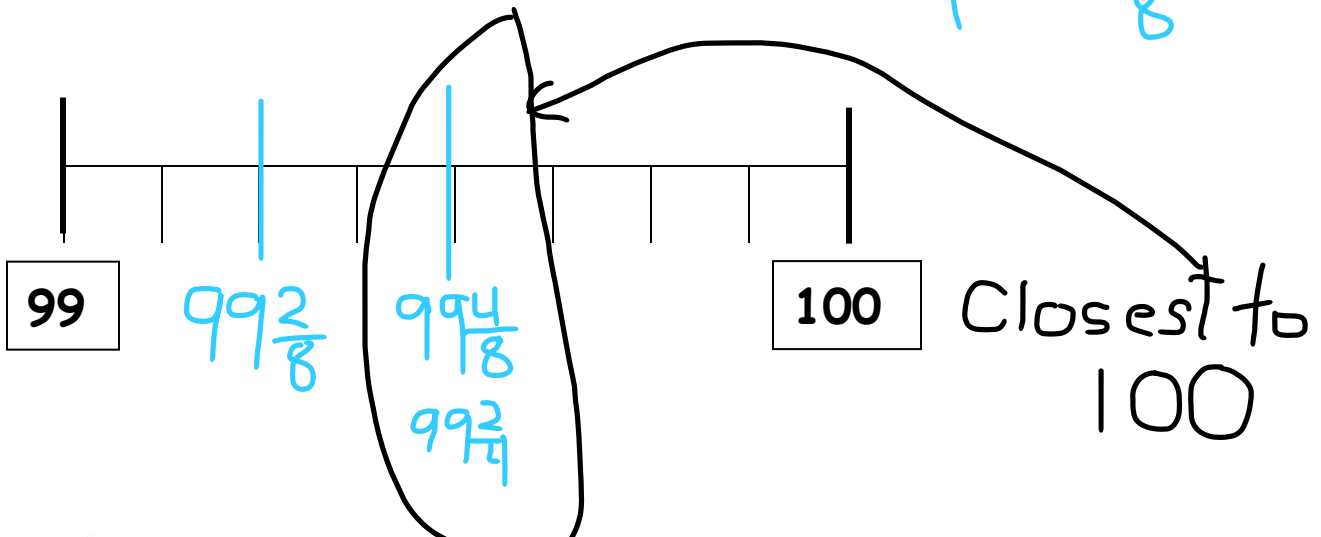
Problem J. Which number is closest to 5?

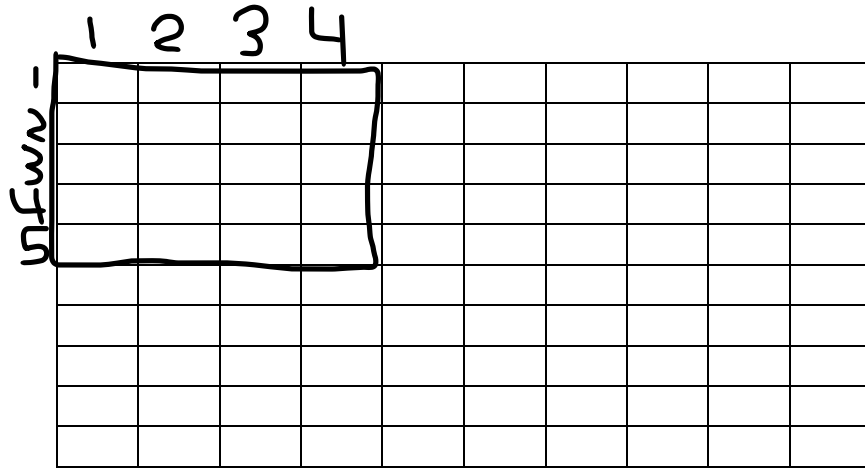


Problem K. Which number is closest to 10?  $\frac{1}{3} = \frac{2}{6}$



Problem L. Which number is closest to 100?  $\frac{2}{4} = \frac{4}{8}$





**Problem D. Draw an array for 5 x 4**

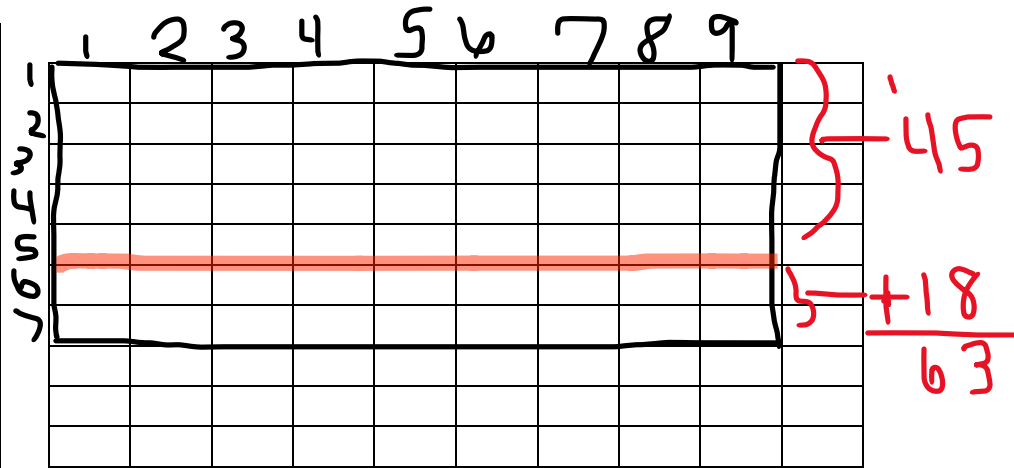
Do you want to make 4 rows with 5 columns or 5 rows with 4 columns?

- Officially, the first factor tells the number of rows or groups in the problem. This can help students decode word problems.
  - 4 rows of 5
  - 4 groups of 5
- In this case, however, the commutative law for multiplication works:  $(4 \times 5) = (5 \times 4)$

Ask student to use the array graphic organizer to draw to show 5 x 4

\*Not required from the question, but still ask:

- What does 5 x 4 equal? (20)



**E. What's missing?  $\_\_ \div 7 = 9$  If student needs help:**

*What is missing? The row or product total? (product/total)*

- How can we use the factors 7 and 9 to find out the product or total?
  - **(multiply 7 x 9; skip count; make an array)**

*Making an Array: Write numbers to show 7 rows and 9 columns.*

Do you know, or can you figure out, what 5 x 9 equals? **(45)**

- Find the 7 rows and make a block for 5 x 9.
- Write "45" instead of counting every square.

Do you know what 2 x 9 equals? **(18)**

- Now that we know one chunk equals 45 and the other part equals 18, what can we do? **(Add:  $45 + 18 = ?$ )**

$$\begin{array}{r}
 5 \times 9 = 45 \\
 2 \times 9 = 18 \\
 \hline
 63
 \end{array}
 \qquad
 \begin{array}{r}
 \text{Add: } 45 = 40 + 5 \\
 + 18 = 10 + 8 \\
 \hline
 50 + 13 \\
 \hline
 50 + 10 + 3 = 60 + 3 \\
 = 63
 \end{array}$$

What is the solution for  $63 \div 7 = 9$ ?



ONES	tenths	hundredths
0.	0	00 2

**Problem I: Write decimal for 2/100**

- Are there any ONES? (**no**)
  - Write "0" in the ONES place.
- How many tenths are there? (**none, 0**)
  - Write "0" in the tenths place.
- How many hundredths, or units are there? (**2**)
  - Draw 2 units in the hundredths place and write the number "0"
- How do you write the decimal?

$$\frac{2}{100} = \boxed{0.02}$$

ONES	tenths	hundredths
0.	 7	 5

**J. Write decimal for 3/4.**

If student needs help:

- To find the decimal
  - We can divide the numerator (3) by the denominator (4), or
  - Figure out if the denominator (4<sup>ths</sup>) has an equivalent fraction in 10<sup>ths</sup> or 100<sup>ths</sup>.

*If looking for equivalent 10<sup>th</sup> or 100<sup>th</sup>,*

- Do "fourths" have an equivalent fraction to tenths? Does 4 x (anything) = 10? (**no**)
- Do fourths have an equivalent fraction to hundredths? Does 4 x (anything) = 100? How about 4 quarters? Do 4 quarters make \$1.00? or 100 cents? (**yes**)

Since 4 x 25 = 100, let's figure out how many hundredths 3 fourths make:

$$\frac{3}{4} \times \frac{25}{25} = \frac{75}{100} = \boxed{0.75}$$





Problems A - I - Using Place Value charts and Base 10 blocks to represent decimals

ONES	tenths $\frac{x}{10}$	hundredths
1	1	5

- A. How many ONES? (box showing 100 parts) (1)  
 How many tenths (rod of 10 parts) (1)  
 How many hundredths? (single units) (5)    1.15



ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$
0	4	2

- C. How many ONES? (0) How many tenths? (4) Hundredths? (2)  
 0.42





ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$
0	0	1

E. How many ONES? (0) How many tenths? (0)  
 How many hundredths? (Units) (1) 0.01

**Problems J - O - Fractions: Figure out the missing fraction**

These fractions all have the same denominator. The problem gives the fraction for 1 or more parts, then the student needs to find the missing part from the whole. Students can draw and/or use numbers to figure with.

Students are not told what the whole is. Need to understand  $4/4$  or  $8/8$  or  $5/5 =$  the whole amount, depending on the fraction being used.

<p><b>J.</b>                  Marty = <math>1/4</math>                  Carrie = <math>2/4</math>                  Brother = ?   <math>1/4 + 2/4 = 3/4</math> eaten   <math>4/4 - 3/4 = 1/4</math> saved for brother</p>	
--	--

**Problems P - R - Addition & Subtraction with decimals**

- Need to decide whether to add or subtract
- Need to line up the decimals
  - Problem Q is the tricky one, mixing tenths and hundredths









Sample Solutions – Unit 1

<p><b>O.</b> OJ = <math>\frac{1}{6}</math> PJ = <math>\frac{1}{6}</math> Lem = <math>\frac{1}{6}</math> Water = x <math>\frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \frac{3}{6}</math> juices <math>\frac{6}{6} - \frac{3}{6} = \frac{3}{6}</math> water (Not told to reduce, but could reduce to <math>\frac{1}{2}</math> water)</p>	<p><math>\frac{1}{6}</math> <math>\frac{1}{6}</math> <math>\frac{1}{6}</math> } = ? = <math>\frac{3}{6}</math> parts water</p>
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## Unit 2

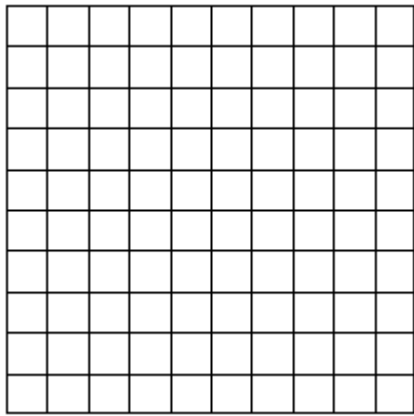
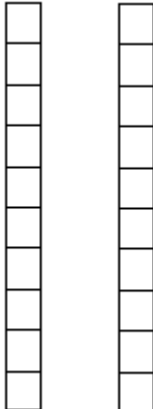

## Family Fun Game Answer Key - All Levels

Problem Letter					
A	10 ¢	\$46	$2 \times 5 = 10$ $5 \times 2 = 10$ $10 \div 2 = 5$ $10 \div 5 = 2$		1.25
B	10 ¢	\$59	$5 \times 4 = 20; 4 \times 5 = 20; 20 \div 4 = 5; 20 \div 5 = 4$		1.21
C	12 ¢	\$45	$3 \times 6 = 18; 6 \times 3 = 18; 18 \div 6 = 3; 18 \div 3 = 6$		0.22
D	11 cents	\$40	42		3/6 or 1/2 pizza
E	10 cents	\$90	8		5/8 cards
F	12 cents	\$85	45		3/8 way on bus
G	15 cents	\$37	5 blouses		\$108.55
H	14 cents	\$52	\$4 each		6.4 miles
I	18 cents	\$26	4 in each row		51.2 miles
J	6 + 4	$2 + 7 = 9$ $7 + 2 = 9$ $9 - 2 = 7$ $9 - 7 = 2$	0.76		9
K	5 + 5	$7 + 3 = 10$ $3 + 7 = 10$ $10 - 7 = 10$ $10 - 3 = 7$	0.08		7
L	1 + 9	$6 + 9 = 15$ $9 + 6 = 15$ $15 - 9 = 6$ $15 - 6 = 9$	0.19		9
M	10, 20, 30, 40, 50, 60, 70, 80, 90, 100	22 fish	$\frac{9}{10}$		14
N	9 ants	6 fish were left	$\frac{6}{10}$		42
O	5 bugs	10 tadpoles left	$\frac{4}{10}$		16
P	4 coyotes	$8 + 2 = 10$	(smallest) 0.33; (largest) 0.5		1/6
Q	7 sage leaves	$1 + 9 = 10$	11.99		1/6
R	$5 - 1 = 4$	$3 + 7 = 10$	Drew		5/8



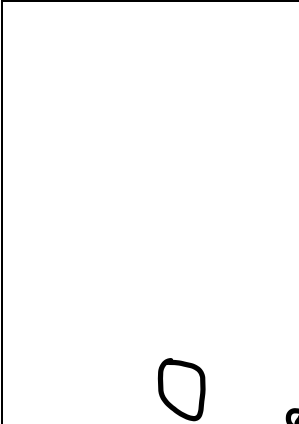
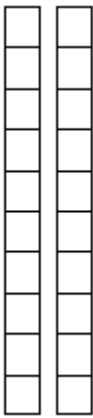



Problems A - C - Using Place Value charts and Base 10 blocks to represent decimals

ONES	tenths $\frac{x}{10}$	hundredths
 1	 2	 5

A. How many ONES? (box showing 100 parts) (1) How many tenths (rod of 10 parts) (2)  
How many hundredths? (single units) (5)

1.25

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$
 0	 2	 2

C. How many ONES? (0) How many tenths? (2) Hundredths? (2)

0.22





**Problems D - F - Fractions: Figure out the missing fraction**

These fractions all have the same denominator. The problem gives the fraction for 1 or more parts, then the student needs to find the missing part from the whole. Students can draw and/or use numbers to figure with.

Students are not told what the whole is. Need to understand  $4/4$  or  $8/8$  or  $5/5 =$  the whole amount, depending on the fraction being used.

<p><b>E.</b>                  Cards to school = <math>3/8</math>                  Cards left home = <math>x</math></p> <p>whole collection = <math>8/8</math>  <math>8/8 - 3/8 = 5/8</math></p> <p><math>5/8</math> of cards left home</p>	<p>school = <math>3/8</math></p> <p>Rest left home</p>
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**Problems P - R - Addition & Subtraction with decimals**

- Need to decide whether to add or subtract
  - **G:** Meghan starts with \$185 then spends an unknown amount and has \$76.45 left to put back in the bank.
    - How much does she start with? (\$185)
    - How much does she spend? (don't know)
    - How much does she have at the end? (\$76.45)
    - What does this equation look like? ( $\$185.00 - \underline{\quad} = \$76.45$ )
    - How can we solve for the unknown amount?
- Need to line up the decimals

HUNDREDS	TENS	ONES	Tenths	Hundredths
<del>\$1</del>	<del>87</del>	<del>54</del>	<del>010</del>	<del>010</del>
-	7	6	4	5
\$1	0	8	5	5

Meghan spent \$108.55





### Problems J- L - Finding the Greatest Common Factor (GCF)

4 minute MyTutoringBee 5<sup>th</sup> Grade YouTube video about GCF, is a helpful demonstration using Factor Tress and making the final decision. <https://www.youtube.com/watch?v=iXi3ntur5I0>

J. Find GCF of 45 and 63

$$\begin{array}{c}
 45 \\
 / \quad \backslash \\
 9 \quad 5 \\
 / \quad \backslash \\
 3 \quad 3
 \end{array}$$

$$\begin{array}{c}
 63 \\
 / \quad \backslash \\
 9 \times 7 \\
 / \quad \backslash \\
 3 \quad 3
 \end{array}$$

$$\begin{array}{l}
 45 - 3, 3, 5 \\
 63 - 3, 3, 7 \\
 \hline
 \text{GCF} = 3 \times 3 = 9
 \end{array}$$

### Problems M - O - Finding the Least Common Factor (LCM)

6 minute MyTutoringBee – 5<sup>th</sup> Grade YouTube video about LCM – The first minute & half is a nice refresher about finding the LCM for small numbers that is needed in this packet.

- Multiply each number by 1, by 2, by 3, etc., until finding an answer (product/multiple) that is the same for both numbers.
  - Useful when adding and subtracting fractions with different denominators
- The rest is about finding the LCM for larger numbers that lost me for a while, and I don't remember needing.
- [https://www.youtube.com/watch?v=K\\_j5WPGiqbU](https://www.youtube.com/watch?v=K_j5WPGiqbU)

N. What is LCM of 14 and 42?

$$\begin{array}{l}
 14 - 14, 28, 42 \\
 42 - 42
 \end{array}$$

The LCM = 42

### Problems P-R - Adding and Subtracting Fractions

- Common mistakes include
  - adding the numbers in the denominator
  - not remembering that the numbers in the bottom number (denominator) need to be the same
  - how to convert to equivalent fractions





P.  $\frac{2}{3} - \frac{1}{2}$

1. Find LCM for the number on the bottom (denominators)

2 ~ 2, 4, 6, 8, 10  
 3 ~ 3, 6, 9

2. Convert 2/3 and 1/2 to the equivalent sixths: What number do we multiply the denominator by to reach 6ths? Multiply the top number (numerator) by the same number.

$$\frac{2 \cdot (2)}{3 \cdot (2)} = \frac{4}{6} \qquad \frac{1 \cdot (3)}{2 \cdot (3)} = \frac{3}{6}$$

3. Now you can solve using:





$$\frac{4}{6} - \frac{3}{6} = \frac{1}{6}$$

**Remember:** The answer needs to use the same denominator (bottom number). Then you can add or subtract to find the fractional part. ( $4 - 3 = 1$ , so the answer is  $1/6$ )



Unit 3

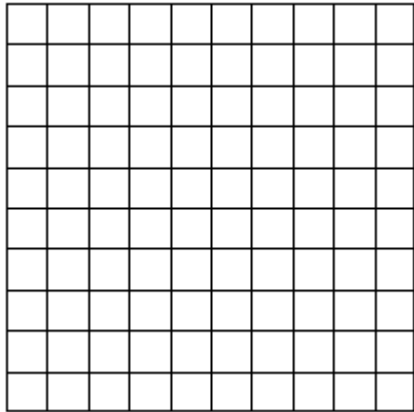
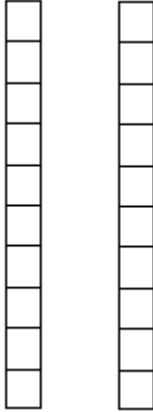

Family Fun Game All Level Answer Key

Problem	 (pink)	 (blue)	 (green)	 (yellow)
<b>A</b>	15 dots Number 15	$7 + 6 = 13$ $6 + 7 = 13$ $13 - 7 = 6$ $13 - 6 = 7$	0.9	1.26
<b>B</b>	5 butterflies Number 5	$5 + 8 = 13$ $8 + 5 = 13$ $13 - 5 = 8$ $13 - 8 = 5$	0.06	1/6 of pizza
<b>C</b>	9 stars Number 9	$7 + 9 = 16$ $9 + 7 = 16$ $16 - 9 = 7$ $16 - 7 = 9$	0.4	32,770.77 miles
<b>D</b>	8 - (Can cut paper pennies for counters)	$8 + 2 = 10$	solution = 169	210.55
<b>E</b>	Count out 15 counters	$3 + 7 = 10$	solution = 143	0.75
<b>F</b>	Count out 10 counters	$5 + 5 = 10$	solution = 195	0.07
<b>G</b>	12 ants	$14 + 5 = 19$ Sue read 19 picture books.	0.45 (smallest); 0.75	0.05, 5%
<b>H</b>	10 leaves	$13 - 9 = 4$ Eddie picked up 4 fewer rocks.	0.7 (largest); 0.56	9
<b>I</b>	3 bugs	Divided into 2 equal or same size pieces.	0.08 (smallest); 0.9	18
<b>J</b>	2 eggs	4 tens and 5 ones 45	$4/6$ is closer to $2/3$ Solve with common denominator = 6 $2/3 = 4/6$ $1/2 = 3/6$	Draw and color tiles or use the paper tiles to show the ratio 4:1 show 4 tiles with one color and show 1 tile with a different color
<b>K</b>	10 eggs	3 tens and 9 ones 39	$1/4$ is closer to $1/8$ Solve with common denominator = 8 $1/4 = 2/8$ $1/2 = 4/8$	Draw and color tiles or use the paper tiles to show the ratio 5:3 show 5 tiles with one color and show 3 tile with a different color
<b>L</b>	8 were brown	6 tens and 6 ones 66	$1/2$ is closer to $6/8$ Solve with common denominator = 8 $1/2 = 4/8$ $1/4 = 2/8$	Draw and color tiles or use the paper tiles to show the ratio 3:7 show 3 tiles with one color and show 7 tile with a different color
<b>M</b>	Penny	5	$8/10 = 0.8$	3:4 and 3/4
<b>N</b>	Penny	12	$4/10 = 0.4$	6:1 and 6/1
<b>O</b>	Dime	46	$7/10 = 0.7$	3:5 and 3/5
<b>P</b>	8 (Blue) cubes On bottom	Ally had 33 cupcakes.	$5 \times 4 = 20$ $4 \times 5 = 20$ $20 \div 5 = 4$ $20 \div 4 = 5$	$x = 3$
<b>Q</b>	9 (red) ovals on right	12 cupcakes were not eaten.	24	$x = 9$
<b>R</b>	10 (red) hearts on left	17 cupcakes were left.	5	$x = 9$




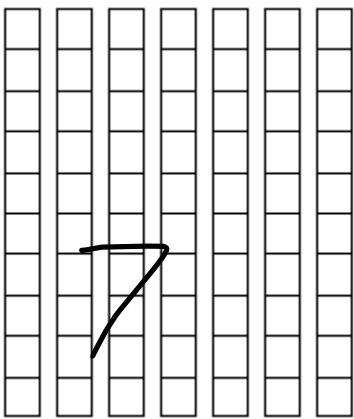



**Problems A, E, F, and G - Using Place Value charts and Base 10 blocks to represent decimals**

ONES	tenths $\frac{x}{10}$	hundredths
 1	 2	 5

- A.** How many ONES? (box showing 100 parts) (1) How many tenths (rod of 10 parts) (2)  
How many hundredths? (single units) (5)

1.2

ONES	tenths $\left(\frac{x}{10}\right)$	hundredths $\left(\frac{x}{100}\right)$
 0.	 7	 5

- E.** There is an extra step to write  $\frac{3}{4}$  as a decimal. Some students recognize  $\frac{3}{4}$  as  $\frac{75}{100}$ . If not, students need to find the equivalent fraction first:

- Is "10" a multiple of 4? (no) Is "100" a multiple of 4? (yes – students might know that there are 4 quarters in a dollar, so  $2 \times 25 = 100$ .)

$$\frac{3}{4} \left(\frac{25}{25}\right) = \frac{75}{100} = \boxed{0.75}$$





## Word Problems B, C, D

**Problem "B" uses fractions.** Students need to consider:

- Are the fractions cut into the same # of pieces (have the same bottom number/denominator?) (*yes, sixths*)
- What needs to happen before solving for how much pizza is left for the brother?
  - How much did Marty and Carrie eat?
- How many pieces did the pizza start with?
  - If cut into 6ths, then started with 6 pieces
  - How do I show 6 pieces in the whole? (draw it, write it in a fraction: 6/6)

<p><b>B. continued...</b></p> <p>Marty = <math>2/6</math>          Carrie = <math>3/6</math>          Brother = ?</p> <p><math>2/6 + 3/6 = 5/6</math> of pizza eaten</p> <p><math>6/6 - 5/6 = 1/6</math>          1.6 of pizza was saved for brother</p>	<p><b>Saved</b> →</p>
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**Problems "C" and "D" use decimals.**

- Need to decide whether to add or subtract
  - **C: What do we know?**
    - Do we know how many miles the odometer started at?
      - Yes. 32,345.07 in the morning.
    - Do we know how many miles it changed during the day?
      - Yes. Tym drove 425.7 miles.
    - Is this change adding miles or taking miles away?
      - adding miles
    - Do we know how many miles are on the odometer at the end of the day?
      - No
    - Can we write an equation about what we know and don't know?
      - $32,345.07 + 425.7 = x$
    - **How can we solve for the unknown amount?**





**Problem C continued...**

**Need to line up the decimals**

	Ten Thousand	One Thousand	Hundred	Ten	One	Tenths	Hundredths
	3	2	3	4	5	0	7
+			4	2	5	7	
<hr/>							
	3	2	7	7	0	7	7

The odometer read 32,770.77 miles

**Problem G - Write the Decimal and the Percent represented**

- Write the decimal represented by the blocks
  - Write the equivalent percent by multiplying the decimal by 100
  - Students might need practice solving the long way until **they** recognize a pattern for moving the decimal point 2 places to the right.

<p><b>G.</b></p> <p>Write the decimal</p> <table border="1"> <thead> <tr> <th>ONES</th> <th>Tenths</th> <th>Hundredths</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>00000</td> </tr> <tr> <td>0</td> <td>0</td> <td>5</td> </tr> </tbody> </table>	ONES	Tenths	Hundredths			00000	0	0	5	<p><b>Write the decimal as a percent</b></p> <ul style="list-style-type: none"> <li>• Multiply the decimal by 100</li> <li>• How many decimal places do the factors have? <b>2</b> decimal places in 0.05</li> </ul> <p> <math display="block">\begin{array}{r} 0.05 \\ \times 100 \\ \hline 5.00 \end{array}</math> <span style="color: blue; font-size: 2em; margin-left: 20px;">5%</span> </p> <ul style="list-style-type: none"> <li>• When multiplying decimals, we need the same number of decimal places in the answer (product) that are in the factors. <b>(2)</b></li> </ul>
ONES	Tenths	Hundredths								
		00000								
0	0	5								
<p><b>Solution:</b></p> <p style="text-align: center;"><b>0.05, 5%</b></p>										





## Problem H – Finding the Greatest Common Factor (GCF)

4 minute MyTutoringBee 5<sup>th</sup> Grade YouTube video about GCF, is a helpful demonstration using Factor Trees and making the final decision. <https://www.youtube.com/watch?v=iXi3ntur5I0>

- Make Factor Trees for each number, down to the Prime Numbers (can only multiply by 1)
- List all of the factors in a row. Find which ones are in both. For example, 45 and 27 both have (2) threes.  $2 \times 3 = 9$ , so 9 is the Greatest Common Factor.

H. Find GCF of 45 and 27

$$\begin{array}{c}
 45 \\
 / \quad \backslash \\
 5 \quad 9 \\
 \quad / \quad \backslash \\
 \quad 3 \quad 3
 \end{array}$$

$$\begin{array}{c}
 27 \\
 / \quad \backslash \\
 9 \quad 3 \\
 / \quad \backslash \\
 3 \quad 3
 \end{array}$$

$$\begin{array}{c}
 45 - 5, 3, 3 \\
 27 - 3, 3, 3
 \end{array}$$

The GCF =  $3 \times 3$   
GCF = 9

## Problems I – Finding the Least Common Factor (LCM)

MyTutoringBee – has a six-minute 5<sup>th</sup> Grade Lesson on YouTube about find the Lowest Common Multiple (LCM) – [https://www.youtube.com/watch?v=K\\_j5WPGiqbU](https://www.youtube.com/watch?v=K_j5WPGiqbU)

- The first minute & half is a nice refresher about finding the LCM for small numbers that is needed in this packet:
  - Multiply each number by 1, by 2, by 3, etc., until finding an answer (product/multiple) that is the same for both numbers.
    - Useful when adding and subtracting fractions with different denominators
  - The rest of the video is about finding the LCM for larger numbers that is more complex.

I. What is LCM of 6 and 9?

$6 - 6, 12, 18, 24, 30$   
 $9 - 9, 18, 27$

$LCM = 18$





### Problems J to O – Expressing Ratios

**J- L - Using color tiles to model a ratio**

- Students can draw squares or cut out and use the paper squares in the packet, to visualize the ratios. (The color is the same, some squares are blank, and some are filled with a pattern.)

<b>J.</b>	<b>4:1</b>	
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<b>L.</b>	<b>3:7</b>	
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**M - O - Different Ways to express the ratio**

**Reading Ratios**

When written as a fraction, read top to bottom. 	When written with a colon, read left to right. 
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**M. Different Ways to express the ratio 3 to 4 (student needs 2 ways)**

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## Problems P-R – Solve for x

P.  $\frac{1}{3} = \frac{x}{9}$

(1) Find Lowest Common Multiple for the denominators (number telling how many pieces in the whole) (bottom #)

3 ~ 3, 6, 9, 12, 15

9 ~ 9, 12, 18

(2) Convert  $1/3$  to the equivalent ninths:

- What number do we multiply the denominator (3) by to reach 9ths?
- Multiply the numerator (top number) by the same number.

$$\frac{1}{3} \frac{(3)}{(3)} = \frac{3}{9}$$

$$x = 3$$

$$3 \times 3 = 9$$

R.  $\frac{3}{4} = \frac{x}{12}$

(1) Find Lowest Common Multiple for the denominators (number telling how many pieces in the whole) (bottom #)

4 ~ 4, 8, 12, 16, 20

12 ~ 12, 24

(2) Convert  $3/4$  to the equivalent ninths:

- What number do we multiply the denominator by to reach 12ths?
- Multiply the numerator (top number) by the same number.

$$\frac{3}{4} \frac{(3)}{(3)} = \frac{9}{12}$$





$$x = 9$$

$$3 \times 3 = 12$$



Unit 4

Family Fun Game All Level Answer Key

Problem Letter	 (pink)	 (blue)	 (green)	 (yellow)	
<b>A</b>	ate 14 ants	8 + 7 = 15 7 + 8 = 15 15 - 7 = 8 15 - 8 = 7	0.8	$6\frac{1}{4}$ or 6.25	
<b>B</b>	4 eggs were not broken	5 + 7 = 12 7 + 5 = 12 12 - 7 = 5 12 - 5 = 7	0.80	$\frac{2}{4}$ or 0.5 cups	
<b>C</b>	7 brown eggs	8 + 9 = 17 9 + 8 = 17 17 - 9 = 8 17 - 8 = 9	0.08	\$423,294,920.10	
<b>D</b>	Shows 10 counters and Number 10	38	8	2134.448	
<b>E</b>	Shows 15 counters and Number 15	23	63	\$7400 down payment	
<b>F</b>	Shows 12 counters and Number 12	38	49	10% water	
<b>G</b>	Dime	17	156 flowers	\$48.50 tax	
<b>H</b>	Penny	4 + 6 = 10	5 eggs	\$32.67 late fee	
<b>I</b>	Dime	3 + 7 = 10	21 pounds	\$375 earned	
<b>J</b>	2 pieces are the same size, fair share	Path B is longer.	$4\frac{3}{4}$	\$39.64 interest	
<b>K</b>	Attempts to cut card or paper in 2 equal pieces	Path A is shorter	$9\frac{1}{3}$	\$12.20 tip	
<b>L</b>	Halves OR 1 out of 2 equal pieces	A is shorter than B. B is longer than A.	$99\frac{2}{4}$	25% tip	
<b>M</b>	13 drops of water	49 jelly beans	See 8x4=32 facts below	no. labels flipped	
<b>N</b>	3 thorns	35 fewer	See 6x9=54 facts below	yes. equivalent fractions (scale factor of (x6)	
<b>O</b>	10 miles	52 miles	See 7x8=56 facts below	60 students:1 bus	
<b>P</b>	Set of 5 counters Set of 8 counters Mouse had more (3 more)	18 more	Equivalent to 1/3 can be 2/6 or 3/9 or 4/12....	30 notes hit $\frac{10}{11} = \frac{20}{22} = \frac{30}{33}$	
<b>Q</b>	Set of 12 counters Set of 11 counters Lion saw more 1 more	31 bananas	Equivalent to 1/2 can be 2/4 or 3/6 or 4/8....	$\frac{17}{12}$ or $1\frac{5}{12}$	
<b>R</b>	Set of 12 counters Set of 13 counters Mouse saw more 1 more	28 times	Equivalent to 1/4 can be 2/8 or 3/12 or 4/16....	$4\frac{1}{8}$	

<b>M</b>	<b>N</b>	<b>O</b>
8 x 4 = 32	6 x 9 = 54	7 x 8 = 56
4 x 8 = 32	9 x 6 = 54	8 x 7 = 56
32 ÷ 8 = 4	54 ÷ 9 = 6	56 ÷ 8 = 7
32 ÷ 4 = 8	54 ÷ 6 = 9	56 ÷ 7 = 8





**Problems A and B – Add and Subtract Fractions and Decimals**

Students need to decide if they want to convert all of the numbers to fractions or all of the numbers to decimals.

<p><b>A.</b> Kayla = 2.75 pieces Carlos = 3 1/2 pieces</p> <p>Need to find: Total slices eaten</p>	<p><b>If using all fractions:</b></p> <p>(1) Convert <b>2.75</b> to a fraction format:</p> <ul style="list-style-type: none"> <li>• <b>The (2) ONES stay the same</b></li> <li>• Does student know that <math>0.75 = 3/4</math>? So <math>2.75 = 2 \frac{3}{4}</math>?</li> <li>• If yes, skip down to Step (2)</li> <li>• Otherwise, work through the steps:             <ul style="list-style-type: none"> <li>• 75 hundredths written as a fraction is:</li> </ul> </li> </ul> <div style="text-align: center;"> <math display="block">\boxed{0.75} = \frac{75}{100}</math> </div> <ul style="list-style-type: none"> <li>• Can we reduce this fraction to make it easier to work with? <b>Yes</b></li> <li>• Find the Greatest Common Factor</li> </ul> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <math display="block">\begin{array}{c} 75 \\ / \quad \backslash \\ 3 \quad 25 \\ \quad / \quad \backslash \\ \quad 5 \quad 5 \end{array}</math> </div> <div style="text-align: center;"> <math display="block">\begin{array}{c} 100 \\ / \quad \backslash \\ 10 \quad 10 \\ \quad / \quad \backslash \quad / \quad \backslash \\ \quad 2 \quad 5 \quad 2 \quad 5 \end{array}</math> </div> <div style="text-align: center;"> <math display="block">\begin{array}{l} 75 - \cancel{2}, \boxed{5}, \boxed{5} \\ 100 - \cancel{2}, \cancel{2}, \boxed{5}, \boxed{5} \end{array}</math> <p>The GCF = <math>5 \times 5 = 25</math></p> </div> </div> <ul style="list-style-type: none"> <li>• And reduce to simplest form</li> </ul> <div style="text-align: center;"> <math display="block">\frac{75}{100} \div \frac{(25)}{(25)} = \frac{3}{4}</math> </div> <ul style="list-style-type: none"> <li>• <math>2.75 = 2 \frac{3}{4}</math></li> </ul> <p>(2) Back to the Problem: Do we add or subtract to find the total pizza slices eaten? <b>Add</b></p> <p>(3) What would this equation look like?</p> $x = 2 \frac{3}{4} + 3 \frac{1}{2}$
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<p>Reduce:</p> $\frac{5}{4} = \frac{4}{4} + \frac{1}{4}$ $= 1\frac{1}{4}$	<p>(4) Are the denominators the same? <b>No</b></p> <ul style="list-style-type: none"> <li>Need to find the Least Common Multiple (LCM) for the numbers <b>4</b> and <b>2</b>?           <ul style="list-style-type: none"> <li>4 ~ <b>4</b>, 8, 12, 16</li> <li>2 ~ 2, <b>4</b>, 6, 8, 10</li> </ul> </li> </ul> <p><b>The Least Common Multiple (LCM) = 4</b></p> <p>(5) Solve.</p> $X = 2\frac{3}{4} + 3\frac{2}{4}$ $X = 5\frac{5}{4}$ <p>(5) Reduce</p> $X = 5 + 1\frac{1}{4}$ <p>(6) Label</p> $X = 6\frac{1}{4} \text{ slices}$
<p><b>A. continued</b></p> <p>Kayla = 2.75 pieces Carlos = 3 1/2 pieces</p> <p>Need to find: Total slices eaten</p>	<p><b>If using all decimals:</b></p> <p>(1) Convert 3 1/2 to a decimal format:</p> <ul style="list-style-type: none"> <li><b>The (3) ONES stay the same</b></li> <li>Does the student remember that 1/2 = 0.5 (or 0.50)?</li> <li>If not, work through the steps to find the equivalent fraction of 1/2           <ul style="list-style-type: none"> <li>Decide to find the equivalent in tenths or hundredths? (either way works)</li> <li>It is easiest to convert to a decimal when there is an equivalent fraction in tenths or hundredths</li> </ul> </li> </ul> $\frac{1}{2} \left( \frac{5}{5} \right) = \frac{5}{10} = \boxed{0.5}$ $\frac{1}{2} \left( \frac{50}{50} \right) = \frac{50}{100} = \boxed{0.50}$ <p>(2) Back to the Problem: Do we add or subtract to find the total slices eaten?</p> <p>Add</p>





(3) What would this equation look like?

$$x = 2.75 + 3.5$$

(4) Solve. (line up the decimals)

ONES	Tenths	Hundredths
2	7	5
+ 3	5	0
6	2	5

(5) Label. *6.25 pieces eaten*

**Problems C - E - Addition/Subtraction with Decimals**

C- D: Computation. Students need to remember to line up the decimals.

E – Word Problem

**Problem D.**

TEN THOUSANDS	<u>ONE THOUSANDS</u>	HUNDREDS	TENS	ONES	Tenths	Hundredths	
	<del>9</del> <sup>8</sup>	<del>0</del> <sup>10</sup>	<del>7</del> <sup>6</sup>	<del>4</del> <sup>13</sup>	<del>0</del> <sup>9</sup>	<del>1</del> <sup>11</sup>	8
-	6	9	3	9	5	7	0
	2	1	3	4	.4	4	8

**Problems F-L - Word Problems using Percent**

- F- Percentage parts of the whole
- G – L – one-step problems to find the amount of tax, interest, or tax

Students need to know how to change percentage to decimals and decimals to percent.

- To convert a percentage to a decimal, divide by 100. So 25% is 25/100, or 0.25





- To convert a decimal to percent, multiply by 100. For example,  $0.65 \times 100 = 65\%$
- Use a calculator for any you have questions about.

**F.**

What do you know?

Concrete mix has

- Gravel Ag -37.5%
- Sand – 35%
- Cement – 17.5%
- Water - ?

What do we need to find?

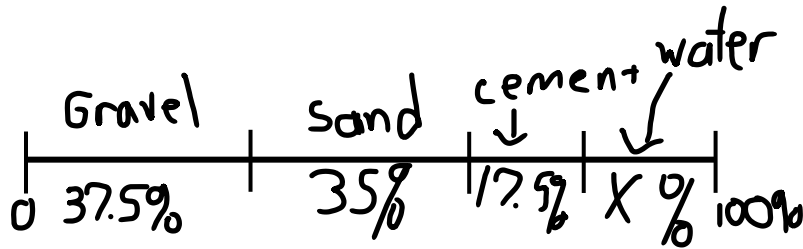
- % water

(1) Does this problem have an action clue, or does it have parts of a whole?

Parts to whole

(2) The problem doesn't tell us what the whole amount is. Is that a mistake or is there a way to figure it out?

- If you eat the whole pizza, you eat 100 %



(3) What do we have to do to solve for the % of water in the cement mixture?

- Add all the parts, using "x" for the water to equal the whole (or)
- Add the parts we know and subtract that total from the whole

(4) Convert the percent to a decimal.

- Use a calculator to divide the fraction:

$$37.5 \div 100 = 0.375$$

$$\boxed{37.5\%} = \frac{37.5}{100} = \boxed{0.375}$$

$$\boxed{35\%} = \frac{35}{100} = \boxed{0.35}$$

$$\boxed{17.5\%} = \frac{17.5}{100} = \boxed{0.175}$$





**F continued...**

What do you know?

Concrete mix has

- Gravel Ag -37.5%
- Sand – 35%
- Cement – 17.5%
- Water - ?

What do we need to find?

- % water

$$\boxed{100\%} = \frac{100}{100} = \boxed{1}$$

(4) What would an equation look like?

$$0.375 + 0.35 + 0.175 + x = 1$$

(5) Solve for the parts you know:

ONES	Tenths	Hundredths	Thousandths
0.	3	7	5
0.	3	5	5
+	0.	1	7
<hr/>			
0.	9	0	0

(6) Now what does the equation look like?

$$0.9 + x = 1$$

(7) Solve for x.

- Does the student recognize what to add to **0.9** to equal **1.0**?
- Does the student want to subtract?

When subtracting "1 - 0.9" it helps to show that "1" has "0" tenths.

ONES	Tenths	Hundredths	Thousandths
1	0		
-	0	9	
<hr/>			
0	1		

$$x = 0.1$$





	<p>(7) Convert the decimal <b>0.1</b> into percentage. (multiply by 100)</p> $\begin{array}{r} 0.1 \\ \times 100 \\ \hline 10.0 \end{array}$ <p>(1 decimal place used in the factors) (1 decimal place added to the product)</p> <p>(8) Solution with label. <b>10% water</b></p>
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**(G - L) Working with simple Interest / Tip / Fee**

- % of A = B

<p><b>G</b></p> <p>What do we know?</p> <ul style="list-style-type: none"> <li>• Finding % of how much? \$388.00</li> <li>• % = 12.5%</li> <li>• % amount = ? <b>tax</b></li> </ul> <p>What do we need to find?</p> <ul style="list-style-type: none"> <li>• How much is 12.5% tax?</li> </ul>	<p>(1) Figure out what information is given and what need to figure out.</p> <p>(2) If you are given the %, divide by 100 to convert it to a decimal.</p> $\boxed{12.5\%} = \frac{12.5}{100} = \boxed{0.125}$ <p>(3) What might the equation look like?</p> <p>• <u>0.125%</u> of <u>\$388</u> = <u>X</u></p> <p>(4) Solve for "x"</p> <p>What do we have to remember when multiplying decimals?</p> <ul style="list-style-type: none"> <li>• Do not have to line up the decimals, but</li> <li>• Need to have the same number of decimal places in the answer.</li> </ul> $\begin{array}{r} \$388 \\ \times .125 \\ \hline 7760 \\ 7760 \\ + 38800 \\ \hline \$48.500 \end{array}$ <p>(need 3 decimal places)</p>
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	<p>(5) Write the solution with a label.</p> <p style="text-align: center;"><b>X = \$48.50 tax</b></p>
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<p><b>L.</b></p> <p>What do we know?</p> <ul style="list-style-type: none"> <li>Finding % of how much? \$40</li> <li>% = ?</li> <li>% amount = <b>\$10 tip</b></li> </ul> <p>What do we need to find?</p> <ul style="list-style-type: none"> <li>What % tip did Jill give?</li> </ul>  <div style="text-align: center;"> <math display="block">\begin{array}{r} 0.25 \\ 4 \overline{) 1.0} \\ \underline{8} \\ 20 \\ \underline{20} \\ 0 \end{array}</math> </div>	<p>(1) Figure out what information is given and what need to figure out.</p> <p>(2) If you are given the %, divide by 100 to convert it to a decimal. (don't know the % yet)</p> <p>(3) What might the equation look like?</p> $\underline{y} \% \times \underline{\$40} = \underline{\$10}$ <p>(4) Divide each side of the equal sign by <u>\$40</u>, so the "x%" is by itself.</p> $\frac{y\% \times \$40 = \$10}{\cancel{\$40} \quad \cancel{\$40}}$ $x\% = \frac{\$10}{\$40}$ <p>(4) Solve for "x"</p> <ul style="list-style-type: none"> <li>Student can divide 10 by 40 or reduce the fraction 10/40 to 1/4 and then divide.</li> <li>Convert this number to % (multiply by 100)</li> </ul> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <math display="block">\begin{array}{r} 0.25 \\ 40 \overline{) 10.00} \\ \underline{80} \downarrow \\ 200 \\ \underline{200} \\ 0 \end{array}</math> </div> <div style="text-align: center;"> <math display="block">x = 0.25</math> <math display="block">\begin{array}{r} 0.25 \\ \times 100 \\ \hline 25.00 \end{array}</math> </div> </div> <p style="text-align: center;"><b>X % = 25%</b></p> <p>(5) Write the solution with a label.</p> <p style="text-align: center;"><b>Jill gave a 25% tip</b></p>
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**Problems M-P - Ratios**

**M & N - Determine if statement is true**

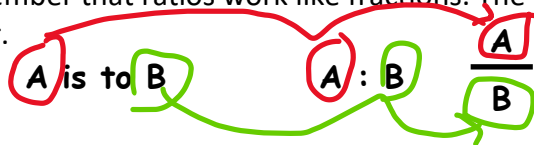
- Are the ratios equivalent?
- Are the things being compared on the same side of the ratio?

<p><b>M</b></p> <p>Are the same things being compared on the same side of ratio?</p> <ul style="list-style-type: none"> <li>• <b>No.</b> This has “green” things to “blue things on the top side of the ratio.</li> </ul> <p>Are the ratios equivalent?</p> <ul style="list-style-type: none"> <li>• <b>Yes.</b></li> </ul> <p>The statement is <b>FALSE</b> because one part doesn’t work for a ratio.</p>	
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<p><b>N.</b></p> <p>Are the same things being compared on the same side of ratio?</p> <ul style="list-style-type: none"> <li>• <b>Yes.</b> This compares dollars on the top side of the ratio, and bags on the bottom side.</li> </ul> <p>Are the ratios equivalent?</p> <ul style="list-style-type: none"> <li>• <b>Yes.</b></li> </ul> <p>This statement is <b>TRUE</b> because both parts work to be a ratio.</p>	
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**M & N - Use ratios to solve problem**

- Remember that ratios work like fractions. The trick is to keep the portions in the right order.







<p><b>O.</b></p> <p>1. What do we have to find out?</p> <ul style="list-style-type: none"> <li>How many students would fit on 1 bus?</li> </ul> <p>2. What ratio do we use?</p> <ul style="list-style-type: none"> <li>480 students : 8 buses</li> </ul> <p>3. What does the ratio mean?</p> <ul style="list-style-type: none"> <li>480 students are divided evenly on 8 buses</li> </ul> <p>4. Set up the equivalent ratios</p> <ul style="list-style-type: none"> <li>Start with the ratio we are given <u>480 students</u> 8 buses</li> <li>What do we know about the 2<sup>nd</sup> ratio? There is 1 bus</li> <li>Are buses in the numerator or denominator?</li> </ul>	<p>5. Solve for the equivalent ratio.</p> $\frac{480 \text{ students}}{8 \text{ buses}} = \frac{x \text{ students}}{1 \text{ bus}}$ <ul style="list-style-type: none"> <li>8 is divided by what to equal 1? <math>8 \div 8 = 1</math></li> <li>So what do we divide 480 by to find "x"?</li> </ul> $\frac{480 \text{ students} \div (8)}{8 \text{ buses} \div (8)} = \frac{60 \text{ students}}{1 \text{ bus}}$ $\begin{array}{r} 60 \\ 8 \overline{)480} \\ \underline{48} \phantom{0} \\ 00 \end{array}$ <p>6. Answer question: 60 students : 1 bus</p>
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### Problems Q & R - Add and Subtract fractions with different denominators

- Find the LCM (Lowest Common Multiple) for the **denominator** (# of parts in the whole; the "bottom number")

<p><b>R.</b></p>	<p><b>Starting Problem:</b></p> $15 \frac{7}{8} - 11 \frac{3}{4} = x$ <p>(1) The denominators (number on the bottom of the fraction) are different. What do we have to do?</p> <p><b>Find the Least Common Multiple (LCM) and find the equivalent fractions</b></p>
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(2) Find the Least Common Multiple (LCM)

$$8 \sim 8, 16, 24 \quad \text{LCM} = 8$$

$$4 \sim 4, 8, 12, 16$$

2. One fraction is already in 8ths, and ready to use.

3. Need to find the equivalent fraction for  $11 \frac{3}{4}$ .

$$11 \frac{3 \cdot (2)}{4 \cdot (2)} = 11 \frac{6}{8}$$





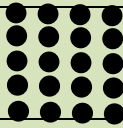
3. Once the denominators are the same size, you can solve.

$$\begin{array}{r} 15 \frac{7}{8} \\ - 11 \frac{6}{8} \\ \hline 4 \frac{1}{8} \end{array}$$

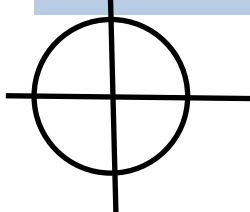


Unit 5

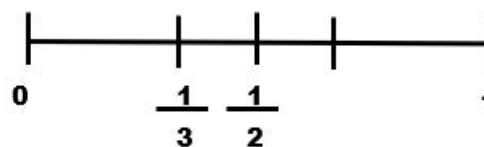
Family Fun Game All Level Answer Key

Problem Letter	 (pink)	 (blue)	 (green)	 (yellow)
A	15 beans counted Number Card 15	$2 + 8 = 10$	\$79.99	Make all decimals: $18.3 + 6.4 - 24.5$ Or make all fractions: $24.5 = 24 \frac{5}{10}$ Solution: 0.2 or $\frac{2}{10}$
B	9 beans counted Number Card 9	$1 + 9 = 10$	$\frac{5}{10}$ or $\frac{1}{2}$ (or any equivalent fraction)	Make all decimals or fractions, then add. $8.25$ or $8 \frac{1}{4}$
C	10 beans counted Number Card 10	$7 + 9 = 16$ $9 + 7 = 16$ $16 - 9 = 7$ $16 - 7 = 9$	$\frac{1}{3} = \frac{4}{12}$ $\frac{1}{4} = \frac{3}{12}$ least= $1 \frac{1}{3}$	\$0.01
D	2 cicadas	$8 + 7 = 15$ $7 + 8 = 15$ $15 - 7 = 8$ $15 - 8 = 7$		1,111,111,110
E	8 mice	$12 + 11 = 23$ 23 miles	63	54.657 grams salt
F	9 leaves	$15 + 9 = 24$ He read 24 books	7 groups of balloons	11.92% chemical B
G	PPenny	14	5 pennies per stack	\$27.45 tax
H	Dime	17	30 muffins	\$350 tip
I	Penny	13	0.02	\$90 interest
J	Top bar is more	one fourth OR One out of 4 equal pieces	0.75	\$230 charged
K	set of 9 dots is more	3 friends + me = 4 See circle below	See number line below	3 cups cashews
L	Bar on left is more	Lucy ate 4 cookies.	8.99	10% tip
M	Attempts to cut card or paper into approximately 2 equal pieces	$12 - 8 = 4$ Bob walked 4 miles.	$\frac{1}{4} = 0.4$	False. Green uses (x 5) to get 45, but Blue uses (x 4) to get 40. The scale factors are different.
N	Halves, or 1 out of 2 equal pieces	7	0.07	True. The scale factor is the same for both pounds & dollars: ( $\div 4$ ) or ( $\times \frac{1}{4}$ ).
O	Both pieces are the same size	17		1200 cotton balls in 1 bag
P	7 flowers	65		She would deliver 48 babies in 8 shifts
Q	4 flowers	80		$\frac{12}{12}$ or 1 whole
R	0 frogs	85		Use 15 for the denominator and subtract for the solution $= 2 \frac{7}{15}$

K. Fair Share for 3 friends and me



K. Number Line:



**Problems A and B – Add and Subtract Fractions and Decimals**

Students need to decide if they want all of the numbers written with fractions or decimals. Then figure out how to solve the problem.

<p><b>B.</b> Marla = 4.75 miles Jesse = Marla + <math>3 \frac{1}{2}</math> miles</p> <p>What do you need to find out? How far Jesse walked.</p>	<p><b>Do you want to use all decimals or all fractions?</b></p> <p>(1) If <i>converting to all fractions</i>, need to write 4.75 as a fraction:</p> $4 \frac{75}{100}$ <p>(2) What would the equation look like?</p> $4 \frac{75}{100} + 3 \frac{1}{2} = \boxed{\times}$ <p>(3) Are the denominators the same? <b>NO</b></p> <p>(4) Find the Least Common Multiple (LCM), so you can find the equivalent fractions.</p> $100 \sim \textcircled{100}, 200, 300$ $2 \sim (2 \times 50 = \textcircled{100})$ $\frac{1 \cdot (\textcircled{50})}{2 \cdot (\textcircled{50})} = \frac{50}{100}$ <p>(5) Solve.</p> $\begin{array}{r} 4 \frac{75}{100} \\ + 3 \frac{50}{100} \\ \hline 7 \frac{125}{100} \end{array} = 7 + 1 + \frac{25}{100} = 8 \frac{1}{4}$ <p>(6) Reduce</p>
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<b>B. continued...</b>	(7) Solution Jesse walked $8\frac{1}{4}$ miles															
<p>Marla = 4.75 miles Jesse = Marla + <math>3\frac{1}{2}</math> miles</p> <p>What do you need to find out? How far Jesse walked.</p>	<p><b>If using all decimals:</b></p> <p>(1) If using all decimals, need to convert <math>3\frac{1}{2}</math> to a decimal.</p> $\frac{1}{2} = \frac{5}{10} = 0.5$ $3\frac{1}{2} = 3\frac{5}{10} = 3.5$ <p>(2) What would this equation look like?</p> $4.75 + 3.5 = x$ <p>(3) Solve. (line up the decimals)</p> <table border="1" data-bbox="548 926 1062 1205"> <thead> <tr> <th>ONES</th> <th>Tenths</th> <th>Hundredths</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>7</td> <td>5</td> </tr> <tr> <td>+</td> <td>3</td> <td>5</td> </tr> <tr> <td colspan="3"><hr/></td> </tr> <tr> <td>8</td> <td>2</td> <td>5</td> </tr> </tbody> </table> <p>(5) Answer the question:</p> <p><b>Jesse walked 8.25 miles.</b></p>	ONES	Tenths	Hundredths	4	7	5	+	3	5	<hr/>			8	2	5
ONES	Tenths	Hundredths														
4	7	5														
+	3	5														
<hr/>																
8	2	5														

## Problems E-L – Word Problems using Percent

### Problems E and F

Students need to know how to change percentage to decimals and decimals to percent.

- The whole of the parts = 100%
- To convert a percentage to a decimal, divide by 100. For example, 25% divided by 100 is written as the fraction  $\frac{25}{100}$ , or 0.25
- To convert a decimal to percent, multiply by 100. For example,  $0.65 \times 100 = 65$ , so 65%
- Use a calculator!



**F.**

What do you know?

Solution is

- Chemical A -18.06%
- Distilled Water – 70.02%
- Chemical B – ? %

What do we need to find?

- What % is Chemical B?

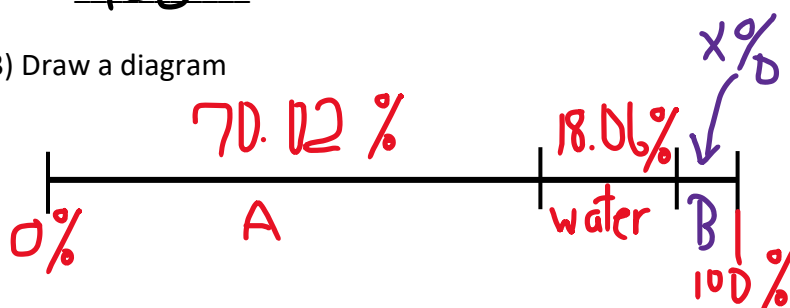
(1) Does this problem have an action clue, or does it have parts of a whole?

Parts to whole

(2) The problem doesn't tell us what the whole amount is. Is that a mistake or is there a way to figure it out?

- When using percent, the WHOLE = 100%
- For example: If you eat the whole pizza, you eat - 100 %

(3) Draw a diagram



(4) What do we have to do to solve for the % of Chemical B in the solution?

- Add all the parts, using "x" for Chemical B, to equal the whole 100%
- (or) can add the parts we know and subtract that total from the whole 100%

(5) Convert percent to a decimal.

$$\boxed{70.02\%} = \frac{70.02}{100} = \boxed{0.7002}$$

- Use a calculator to divide!  
(70.02 ÷ 100 = 0.7002)

$$\boxed{18.06} = \frac{18.06}{100} = \boxed{0.1806}$$

$$\boxed{100\%} = \frac{100}{100} = \boxed{1}$$





**F continued** (6) What would an equation look like?  
 $0.7002 + 0.1806 + x = 1$

What do you know?

Solution is

- Chemical A - 18.06%
- Distilled Water – 70.02%
- Chemical B – ?

What do we need to find?

- What % is Chemical B?

(7) Solve for how much is Chemical A and the distilled water:

ONES	Tenths	Hundredths	Thousandths	Ten-Thousandths
0	.	7	0	2
+	0	.	1	8
<hr/>				
0	.	8	8	0

(8) What does the equation look like with this total?

$$0.8808 + x = 1$$

(9) Subtract 0.8808 from both sides of the equation, so “x” is by itself.

$$\begin{array}{r} 0.8808 + x = 1 \\ -0.8808 \phantom{=} \\ \hline 0 \phantom{=} \end{array} \quad \begin{array}{r} -0.8808 \\ \hline x = 1 - 0.8808 \end{array}$$

(10) Solve for x

ONES	Tenths	Hundredths	Thousandths	Ten-Thousandths
<del>1</del>	.	<del>0</del>	<del>0</del>	<del>0</del>
-	0	.	8	8
<hr/>				
0	.	1	1	9

Subtracting decimals from the whole number:

- $1 = 1.0 = 1.00 = 1.000 = 1.0000$
- Zeros at the end of a decimal to not change the quantity, but help to show how the math works.





	<ul style="list-style-type: none"> <li>Use a calculator to check!</li> </ul> $X = 0.1192$ <p>(11) Convert the decimal <b>0.1192 back</b> into a percentage.</p> <ul style="list-style-type: none"> <li>Multiply by 100</li> <li>When multiply or divide with decimals, you need to count the decimal places.</li> </ul> <p>(12) Write the answer.</p> <p><b>Chemical B is 11.92% of the solution.</b></p>
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Handwritten notes and calculations:

0.1192 ← 4 decimal places

X 100

11.9200

11.92%

**(G – L) Working with simple Interest / Tip / Fee**

- % of A = B**
- In Problem “J,” students need to divide by a decimal. Math with Mr. J has a 6 minute video. <https://www.youtube.com/watch?v=Val4TmjHXRY> (The first example fits the math in this problem.) (English)

<p><b>J</b></p> <p>What do we know?</p> <ul style="list-style-type: none"> <li>Tiffany has to pay interest on what she purchases with the credit card each month</li> <li>% Interest = 20%</li> <li>One month, 20% Interest = \$46.00</li> </ul> <p>How much did Tiffany charge that month?</p> <ul style="list-style-type: none"> <li>The interest was 20% of how much?</li> </ul>	<p>(1) Figure out what information is given and what need to figure out.</p> <p>(2) If you are given the %, divide by 100 to convert it to a decimal.</p> $\boxed{20\%} = \frac{20}{100} = \boxed{0.20}$ <ul style="list-style-type: none"> <li>When the “0” is at the end of a decimal, you can keep the “0” or simplify to leave it off because <b>0.20 and 0.2 are equivalent decimals.</b></li> <li>Which do you want to use?</li> </ul> <p>(3) What might the equation look like?</p> <ul style="list-style-type: none"> <li><u>20%</u> of <u>\$y</u> = <u>\$46</u></li> <li><b>0.2 × \$y = \$46.00</b></li> </ul>
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**Problem J continued...**

What do we need to remember when dividing with decimals?

$$\text{\$46.00} \div 0.2$$

We say, "46 dollars divided by 0.2"

Need to make the outside number (the divisor) a whole number.

- Multiply  $0.2 \times 10 = 2$

Need to multiply the inside number (the dividend) by the same amount.

- $\text{\$46.00} \times 10 = \text{\$460.0}$

(4) How do you get the variable "y" by itself, on one side of the equal sign? **Divide both sides of the equal sign by 0.2**

$$\frac{0.2 \times \$y}{0.2} = \frac{\text{\$46.00}}{0.2}$$

(5) Solve for y

$$\$y = \frac{\text{\$46.00}}{0.2}$$

NOTE: Long division and working with the decimal is shown in the right hand column.

(6) Write the solution with a label.

**Tiffany charged \\$230 to her credit card that month.**

**Problems M-P - Ratios**

**M & N - Determine if statement is true**

- Are the ratios equivalent?
- Are the things being compared on the same side of the ratio?

**M**

Are the same things being compared on the same side of ratio?

- **Yes. Comparing GREEN things on the top and BLUE things on the bottom**

Are the ratios equivalent?

- **No**





The statement is **FALSE** because one part of the ratio does not work. GREEN uses (x5) to get 45, but BLUE uses (x4) to get to 40. The scale factors used are different, so is not a ratio.

**N.**  
 Are the same things being compared on the same side of ratio?

- **Yes.** This compares pounds (lbs.) on the top side of the ratio, and dollars on the bottom side of the ratio.

Are the ratios equivalent?

- **Yes, using the same scale factor ( $\div 4$ )**

**TRUE.** This ratio compares the same objects on the same side of the ratio, AND uses the same scale factor for both parts of the ratio.

$$\frac{24 \text{ lbs}}{\$8} = \frac{6 \text{ lbs}}{\$2}$$

*(Handwritten annotations: purple circles around '24 lbs' and '6 lbs', yellow circles around '\$8' and '\$2', a yellow checkmark between the two ratios, and a purple arrow pointing from the top of the first ratio to the top of the second.)*

$$\frac{24 \div (4)}{8 \div (4)} = \frac{6}{2}$$

*(Handwritten annotations: orange checkmarks next to the simplified ratios.)*

**O & P - Use ratio to solve problem**

- Remember that ratios work like fractions. The trick is to keep the portions in the right order.





**O.**

**1.** What do we have to find out?

- How many cotton balls will fit in 1 bag?

**2.** What ratio are we given to work with?

- 9600 cotton balls : 8 bags

**3.** What does the ratio mean?

- 9600 cotton balls are divided evenly between 8 bags

**4.** Set up the equivalent ratios

- Start with the ratio we are given

$$\frac{9600 \text{ cotton balls}}{8 \text{ bags}}$$

- What do we know about the 2<sup>nd</sup> ratio? **There is 1 bag**
- Are the bags in the numerator or denominator?

**5.** Solve for the equivalent ratio.

$$\frac{9600 \text{ cotton balls}}{8 \text{ bags}} = \frac{x \text{ cotton balls}}{1 \text{ bag}}$$

- 8 is divided by what to equal 1?  $8 \div 8 = 1$
- So what do we divide 9600 by to find "x"?

$$\frac{9600 \text{ cotton balls} \div (8)}{8 \text{ bags} \div (8)} = \frac{1200 \text{ cotton balls}}{1 \text{ bag}}$$

**6.** Write the solution

**1200 cotton balls will fit in 1 bag**

**Problems Q & R - Add and Subtract fractions with different denominators**

- Find the LCM (Lowest Common Multiple) for the **denominator** (# of equal parts the whole object is split into; the "bottom number")

**R.**

$$3 \frac{2}{3} - 1 \frac{1}{5} = x$$

1. Find the LCM

3 ~ 3, 6, 9, 12, 15, 18, 21

**LCM = 15**





5 ~ 5, 10, 15, 20, 25

2. Now find the equivalent fractions, where each has a denominator of 15. (When the whole object is broken into 15 pieces, the number on the bottom is 15.)

- For the fraction  $\frac{2}{3}$ , what do you multiply the denominator (3) by to get 15? 5
- For an equivalent fraction, you need to multiply the numerator (2) by? 5 (the same number)

$$3 \frac{2 \cdot (5)}{3 \cdot (5)} = 3 \frac{10}{15}$$

- For the fraction  $\frac{1}{5}$ , what do you multiply the denominator (5) by to get 15? 3
- For equivalent fraction, you need to multiply the numerator (1) by 3 (the same number)

$$1 \frac{1 \cdot (3)}{5 \cdot (3)} = 1 \frac{3}{15}$$

3. Once the denominators are the same size, you can add or subtract.

- The denominator stays the same (15).
- Subtract the nominators for the problem ( $10 - 3 = ?$ ) 7
- Subtract any whole numbers ( $3 - 1 = ?$ ) 2

$$\begin{array}{r} 3 \frac{10}{15} \\ - 1 \frac{3}{15} \\ \hline 2 \frac{7}{15} \end{array}$$





## Generic Family Fun Game Board

### Materials Generic to All Units:

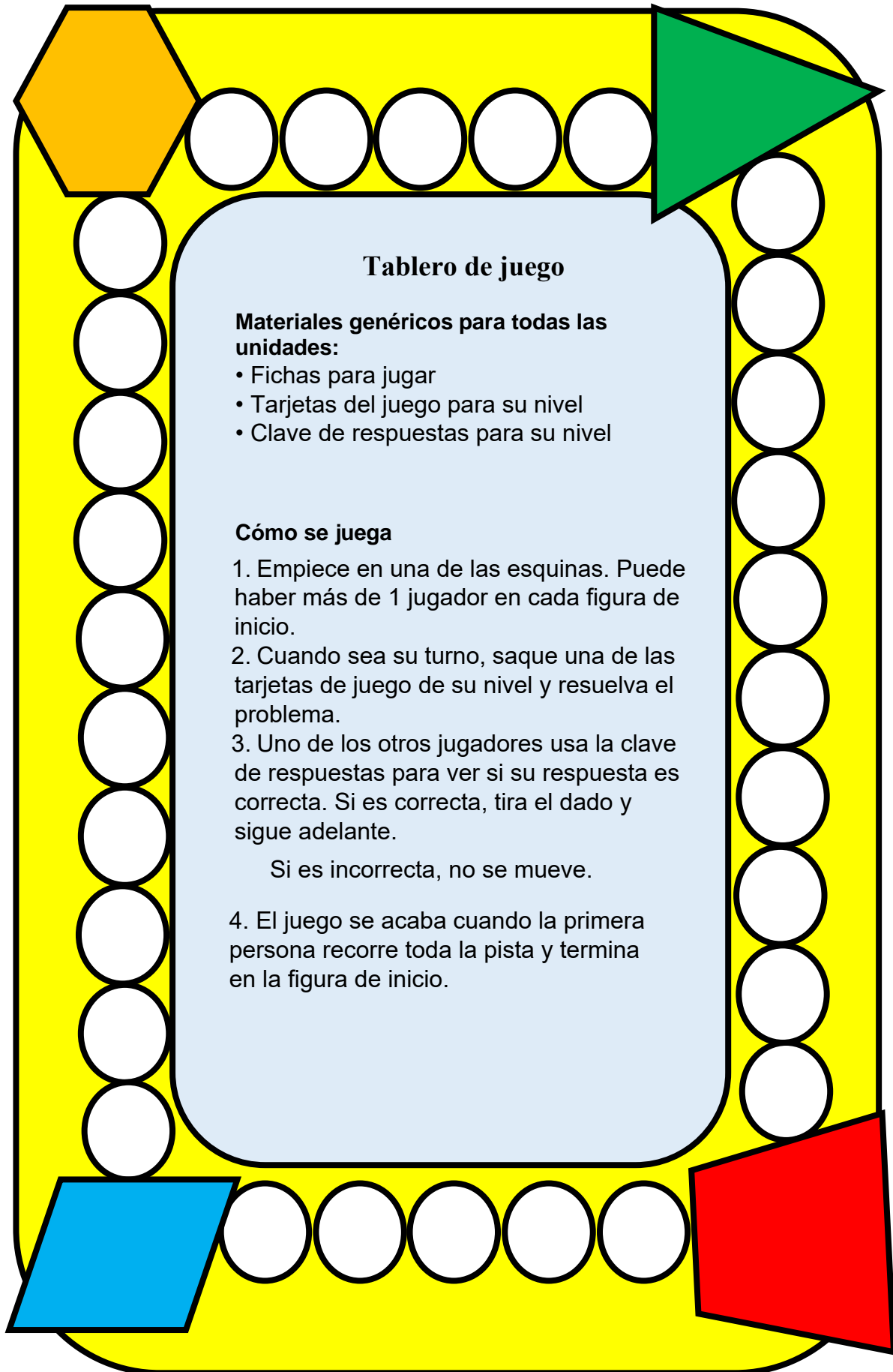
- Game Markers
- Game Cards for your Level
- Answer Key for your Level

### Playing the Game

1. Begin in one of the corner shapes. There may be more than 1 player in each starting shape. Remember where you started.
2. On your turn, draw one of your level game cards and work the problem.
3. One of the other players uses the Answer Key to check your answer. If correct, roll the die and move ahead.

If incorrect, do not move.

4. Game is over when the first person runs the entire track, ending back on the starting shape.



## Tablero de juego

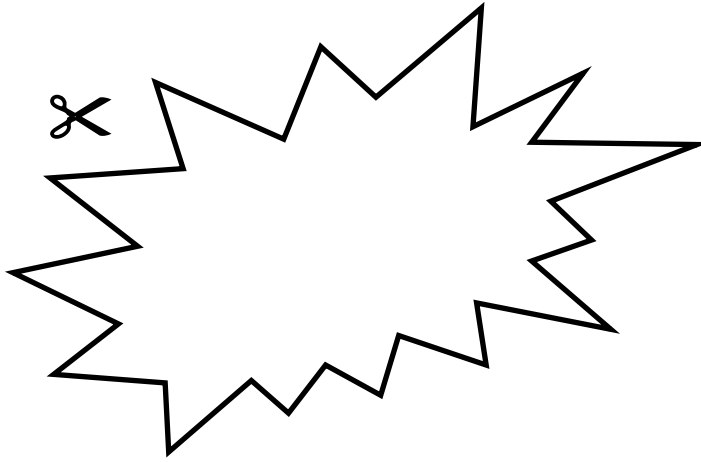
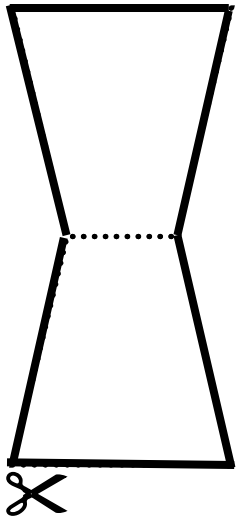
### Materiales genéricos para todas las unidades:

- Fichas para jugar
- Tarjetas del juego para su nivel
- Clave de respuestas para su nivel

### Cómo se juega

1. Empiece en una de las esquinas. Puede haber más de 1 jugador en cada figura de inicio.
2. Cuando sea su turno, saque una de las tarjetas de juego de su nivel y resuelva el problema.
3. Uno de los otros jugadores usa la clave de respuestas para ver si su respuesta es correcta. Si es correcta, tira el dado y sigue adelante.  
Si es incorrecta, no se mueve.
4. El juego se acaba cuando la primera persona recorre toda la pista y termina en la figura de inicio.

Family Fun Game Pieces



1	2	3	4	5	6
6	5	4	3	2	1
4	5	6	1	2	3

Family Fun Game Pieces

