Name _____ Date _____

Dear Family,

Your child will be studying place value in this chapter. First your child will study a number system based on 7s rather than the 10s of the familiar base-ten system. The purpose is to focus students' attention on using regrouping strategies with understanding when using addition, subtraction, multiplication, and division.

Students will solve problems in the context of a fictional store that sells erasers. Erasers are packaged as follows and are modeled in the chapter by the symbol that follows each description:

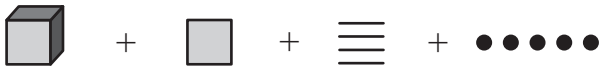
You can buy loose erasers: ● (1 eraser)

7 erasers make a pack: — (1 × 7, or 7 erasers)

7 packs make a box: □ (7 × 7, or 49 erasers)

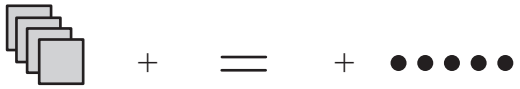
7 boxes make a crate:  (7 × 7 × 7, or 343 erasers)

The Eraser Store is filling an order for 425 erasers. How do they package the erasers using the least number of containers?



(1 × 343) + (1 × 49) + (4 × 7) + (5 × 1)
343 + 49 + 28 + 5 = 425

Later in the chapter, when the Eraser Store and students return to the base-10 system, erasers are packed as we might expect them to be packed in the real world: by powers of 10.



(4 × 100) + (2 × 10) + (5 × 1)
400 + 20 + 5 = 425

Sincerely,

The Eraser Store

VOCABULARY
Here are some of the words we use in class:

Base-ten Our standard system of place value that uses the digits 0–9 and regroups by multiples of 10; the greatest number used in any one place is 9, one less than the base.

Multiple The product of a given whole number and another whole number; for the given number 7, the first 4 multiples are 1 × 7, or 7; 2 × 7, or 14; 3 × 7, or 21; and 4 × 7, or 28.

Trading on Seven

FAMILY FUN

Play this game with one or two family members.
Here's what you'll need:

- **red, white, blue, and yellow scraps of paper or scraps of paper with the letters R, W, B, and Y written on them**
- **a number cube (1–6) or index cards (numbered from 1 through 6)**

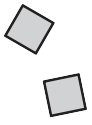
Play the Game

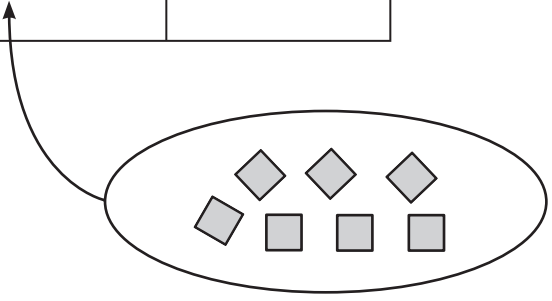
Red	White	Blue	Yellow

- Each player makes a game board like the one at the right.
- Place all of the paper scraps in the center of the table. Decide who will go first, and then take turns. Every turn starts with yellow.
- Toss the number cube (or pick a card). For the number shown, take that many yellow papers. Put them on your game board in the *Yellow* section.
- When you get 7 yellows, trade them for 1 blue. When you get 7 blues, trade them for 1 white. When you get 7 whites, trade them for 1 red. The first player to get a red, and says how many yellows it took to get a red, wins!

Example

Look at the game board below. Doreen has had 2 turns. She has a total of 9 yellows. She trades 7 of them for 1 blue.

Red	White	Blue	Yellow
			



Estimados familiares:

En este capítulo, su hijo estudiará el valor posicional. Primero, en vez de estudiar el conocido sistema en base diez, su hijo estudiará un sistema numérico en base siete. El propósito es que los estudiantes comprendan qué estrategias de reagrupación pueden aplicar a la hora de sumar, restar, multiplicar y dividir.

Los estudiantes resolverán problemas que suceden en una tienda imaginaria en la cual se venden gomas de borrar. Las gomas de borrar están embaladas como se describe a continuación. En el capítulo, se representan con el símbolo que se muestra después de cada descripción:

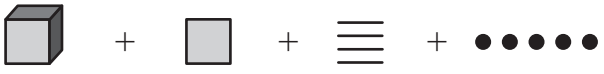
Puedes comprar gomas de borrar sueltas: (1 goma de borrar) •

7 gomas forman un paquete: (1 × 7, o 7 gomas de borrar) —

7 paquetes forman una caja: (7 × 7, o 49 gomas de borrar) □

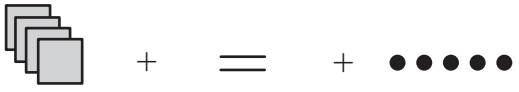
7 cajas forman un cajón: (7 × 7 × 7, o 343 gomas de borrar) 

Los empleados de la Tienda de Gomas de Borrar están armando un pedido de 425 gomas. ¿Cómo embalan las gomas de borrar con la menor cantidad de envases?



(1 × 343) + (1 × 49) + (4 × 7) + (5 × 1)
343 + 49 + 28 + 5 = 425

Más adelante en el capítulo, cuando la tienda y los estudiantes regresen al sistema en base diez, las gomas se embalarán como esperaríamos que se embalen en el mundo real: en potencias de 10.



(4 × 100) + (2 × 10) + (5 × 1)
400 + 20 + 5 = 425

Cordialmente,

La Tienda de Gomas de Borrar

VOCABULARIO

Estos son algunos de los términos de vocabulario que usamos en clase:

Base diez Nuestro sistema estándar de valor posicional en base diez que usa los dígitos del 0 al 9 y reagrupa por múltiplos de 10; el número más alto que se usa en cualquier posición es el 9, uno menos que la base.

Múltiplo El producto de un número entero dado y otro número entero; por ejemplo, los primeros cuatro múltiplos del número 7 son 1 × 7, o 7; 2 × 7, o 14; 3 × 7, o 21 y 4 × 7, o 28.

Siete y cambio

Diversión en familia

Juega a este juego con uno o dos familiares.
Necesitarás:

- **trocitos de papel de color rojo, blanco, azul y amarillo o trocitos de papel que tengan escritas las letras R, B, Az y Am.**
- **un cubo numérico (1–6) o tarjetas de notas (numeradas del 1 al 6)**

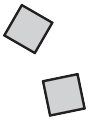
Cómo se juega

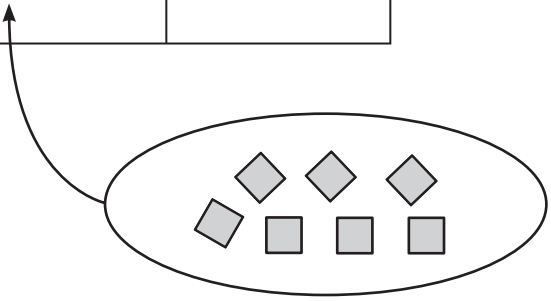
Rojo	Blanco	Azul	Amarillo

- Cada jugador hace un tablero de juego como el de la derecha.
- Coloquen todos los papelitos en el centro de la mesa. Decidan quién comenzará y luego túrnense para jugar. Cada ronda empieza con los papelitos amarillos.
- Lancen el cubo numérico (o tomen una tarjeta). Tomen la cantidad de papelitos amarillos que indica el cubo y ubíquenlos en la sección *Amarillo* del tablero de juego.
- Cuando tengan 7 amarillos, cámbienlos por 1 azul. Cuanto tengan 7 azules, cámbienlos por 1 blanco. Cuando tengan 7 blancos, cámbienlos por 1 rojo. ¡Gana el primer jugador que obtiene 1 rojo y dice cuántos amarillos necesitó para llegar al rojo!

Ejemplo

Observa este tablero de juego. Doreen jugó 2 rondas. Tiene 9 amarillos en total. Cambia 7 de ellos por 1 azul.

Rojo	Blanco	Azul	Amarillo
			

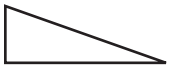
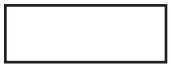


Name _____ Date _____

Dear Family,

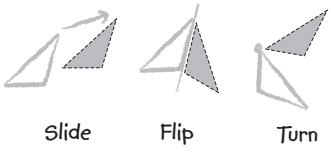
Your child is learning how to classify angles and figures, and how to verify that two figures are congruent. Angles are classified as acute, right, and obtuse. Triangles are classified according to their angles or by comparing side lengths. Quadrilaterals are classified by their angles, side lengths, and number of pairs of parallel sides.

Classify each triangle or quadrilateral.

	A right triangle has one right angle. This has no equal sides, so it is a **scalene triangle**.
	This triangle has one obtuse angle, so it is an **obtuse triangle**. Two sides are equal, so it is an **isosceles triangle**.
	This quadrilateral has two pairs of opposite sides that are parallel, so it is a **parallelogram**. All angles are right angles, so it is a **rectangle**. Not all sides are equal, so it is *not* a square.

Your child will also use lines of symmetry to classify figures. In the examples above, the scalene triangle has no line of symmetry. The isosceles triangle has one line of symmetry, which is vertical and passes through the top vertex (where the sides meet). The rectangle has two lines of symmetry—one vertical, the other horizontal.

This diagram shows three different ways to move a figure. These transformations help your child see figures that are congruent even though the positions and orientations are different.



Use this information and the game on the back of this page to help your child practice classifying figures.

Sincerely,

Classifying Angles and Figures

VOCABULARY
Here are some of the words we use in class:

Acute Angle An angle that is smaller than a right angle

Acute Triangle A triangle with three acute angles

Congruent Having the same size and shape

Isosceles Triangle A triangle with two equal, or congruent, sides

Line of Symmetry A line that separates a figure into two congruent parts

Obtuse Triangle A triangle with one obtuse angle

Right Triangle A triangle with one right angle

Scalene Triangle A triangle with no equal, or congruent, sides