

# LETTER HOME

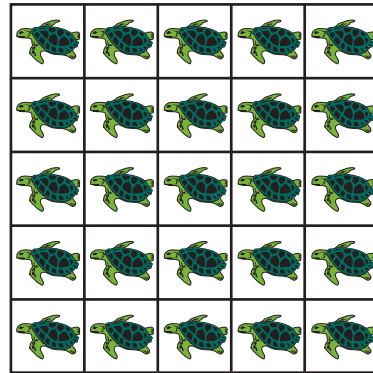
## Grouping and Sharing

Dear Family Member:

In this unit your child will explore multiplication and division concepts. The focus will be on understanding what makes a multiplication or division situation. Your child will then choose from a variety of strategies, such as repeated addition, drawing a picture, counting by groups (twos, fives, tens), or using manipulatives to solve the problems. Students use whatever strategy makes sense to them. Inventing and using a variety of strategies leads to better understanding and stronger concepts and skills. You can provide additional support at home.

- **Multiplication and Division.**

Pose multiplication and division problems as part of your regular conversation. For example, “If I have five rows of stamps with five stamps in each row, how many stamps are there in all?” While playing a card game, ask questions like, “If four of us each have seven cards, how many cards do we have in all?” After asking a question, allow time for your child to figure it out and explain the answer to you.



Five rows of 5 stamps with five stamps in each row:  $5 \times 5 = 25$ .

- **Read Books.** *Each Orange Had 8 Slices* by Paul Giganti, Jr. and *Sea Squares* by Joy N. Hulme are books about multiplication concepts. Your child may enjoy finding books about multiplication and division at the library.

- **Math Facts and Mental Math.** Students’ fluency with the subtraction facts related to the addition facts in Group D will be assessed in this unit.

Group D:  $6 - 3$ ,  $7 - 3$ ,  $7 - 4$ ,  $8 - 4$ ,  $9 - 4$ ,  $9 - 5$ ,  $12 - 6$ ,  $13 - 6$ ,  $13 - 7$ ,  $14 - 7$ ,  $15 - 7$ ,  $15 - 8$ ,  $16 - 8$ ,  $19 - 10$ ,  $19 - 9$ ,  $20 - 10$

You can help your child review these facts using the flash cards the teacher sent home or by making a set of flash cards from index cards or scrap paper. Study the facts in small groups each night. As your child goes through the flash cards, put the cards in three stacks: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn.

For Facts I Need to Learn, work on strategies for figuring them out.

For Facts I Can Figure Out, use the flash cards to practice the facts for fluency.

For Facts I Know Quickly, help your child use strategies to solve problems like these using mental math:  $200 - 100$  (practices  $20 - 10$ ),  $900 - 400$  (practices  $9 - 4$ ).

Thank you for your efforts to reinforce problem solving strategies at home.

Sincerely,

# Unit 12: Home Practice

## Part 1 Subtraction Flash Cards: Group D

Take home your Triangle Flash Cards: Group D. Ask a family member to choose one flash card at a time for you to solve. Sort the flash cards into three piles: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn. Update your *Subtraction Facts I Know* chart. Clip the cards in the Facts I Know Quickly pile together and place them back into the envelope. Practice the facts in the last two piles again.

## Part 2 Using Doubles, Thinking Addition

1. A.  $\square = 20 - 10$     B.  $7 = 15 - \square$     C.  $19 - 9 = \square$

D.  $14 - 7 = \square$     E.  $13 - 6 = \square$     F.  $5 = 9 - \square$

G.  $8 = \square - 8$     H.  $15 - \square = 8$     I.  $6 - 3 = \square$

2. A.  $9 - 5 = \square$

3. A.  $7 - \square = 3$

B.  $\square = 90 - 50$

B.  $70 - \square = 30$

C.  $900 - 500 = \square$

C.  $300 = 700 - \square$

4. Richard went to the carnival and bought 19 tokens. The Bumper Cars costs 4 tokens and the Water Rafter costs 10 tokens. He wants to ride the Bumper Cars twice and the Water Rafter once. Will Richard have enough tokens? Show or tell how you solved the problem.

**Part 3** Missing Numbers

Fill in the missing numbers. Remember to check the operation.

**A.**

$$\begin{array}{r} 64 \\ + \square 3 \\ \hline 127 \end{array}$$

**B.**

$$\begin{array}{r} 33 \\ + \square 7 \\ \hline 70 \end{array}$$

**C.**

$$\begin{array}{r} 8 \square \\ - 23 \\ \hline 64 \end{array}$$

**D.**

$$\begin{array}{r} 78 \\ - \square 6 \\ \hline 52 \end{array}$$

**E.**

$$\begin{array}{r} 9 \square \\ - 47 \\ \hline 47 \end{array}$$

**F.**

$$\begin{array}{r} \square 3 \\ + 85 \\ \hline 98 \end{array}$$

**G.** In Question F, how would you represent the number in the box with base-ten pieces?

**H.** Show or tell how you solved Question E.

**Part 4 Using Strategies**

1. Circle the correct answer for each problem. Use mental math or a number line. Think of friendly numbers. Do **not** use paper and pencil.

**A.**  $85 - 29$                       64                      56                      104

**B.**  $47 - 19$                       28                      18                      32

**C.**  $63 - 29$                       34                      46                      92

- D.** Show or tell how you solved Question B.

2. Follow the rule and fill in the answers.

Rule: <u>  Add 12  </u>	
8	
18	
9	
19	

**Part 5** Grouping and Sharing

1. Draw a picture and write a story about  $3 \times 8 = \underline{\hspace{2cm}}$  .

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2. A mother has 27 crackers. She wants to give each of her six children the same number of crackers.

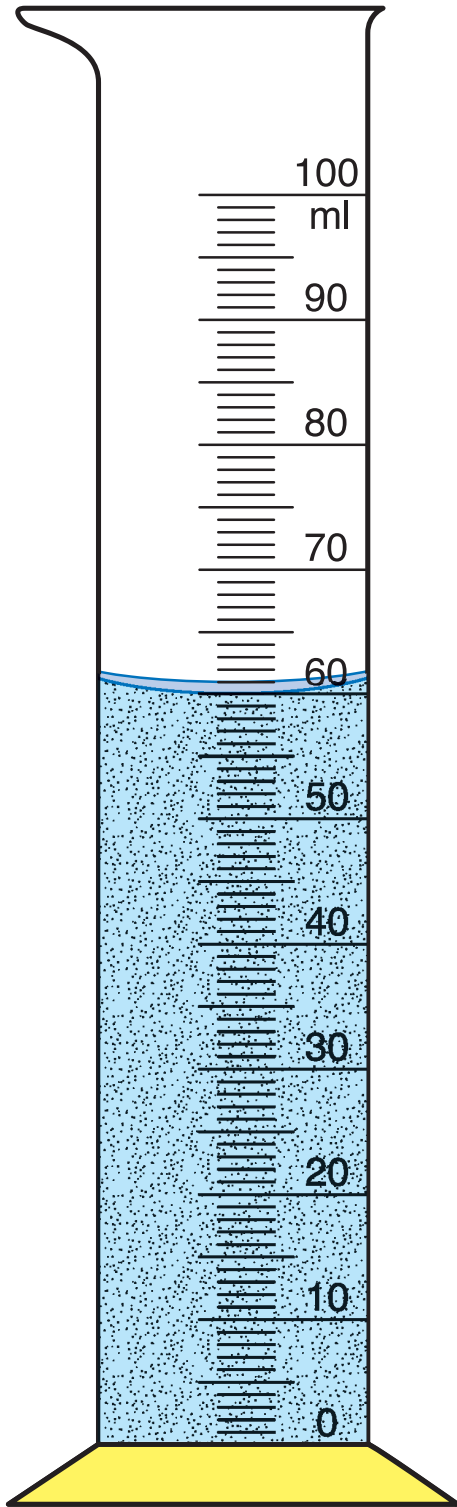
A. How many crackers does each child get? \_\_\_\_\_

B. How many crackers are left over? \_\_\_\_\_

C. What do you think she should do with the leftovers?

**Part 6 Problems with Volume**

This is Kim's graduated cylinder. Use the picture to solve these problems. Write a number sentence to show how you got your answer.



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1. **A.** Kim put an eraser into the cylinder of 60 cc of water. The volume of the eraser was 13 cc. What is the total volume?

\_\_\_\_\_

Number sentence

\_\_\_\_\_

- B.** Kim put a glue stick into the cylinder of 60 cc of water. The water went up to 92 cc. What is the volume of the glue stick?

\_\_\_\_\_

Number sentence

\_\_\_\_\_

2. **A.** What will happen if Kim adds a rock with a volume of 61 cc to the 60 cc of water?

\_\_\_\_\_

\_\_\_\_\_

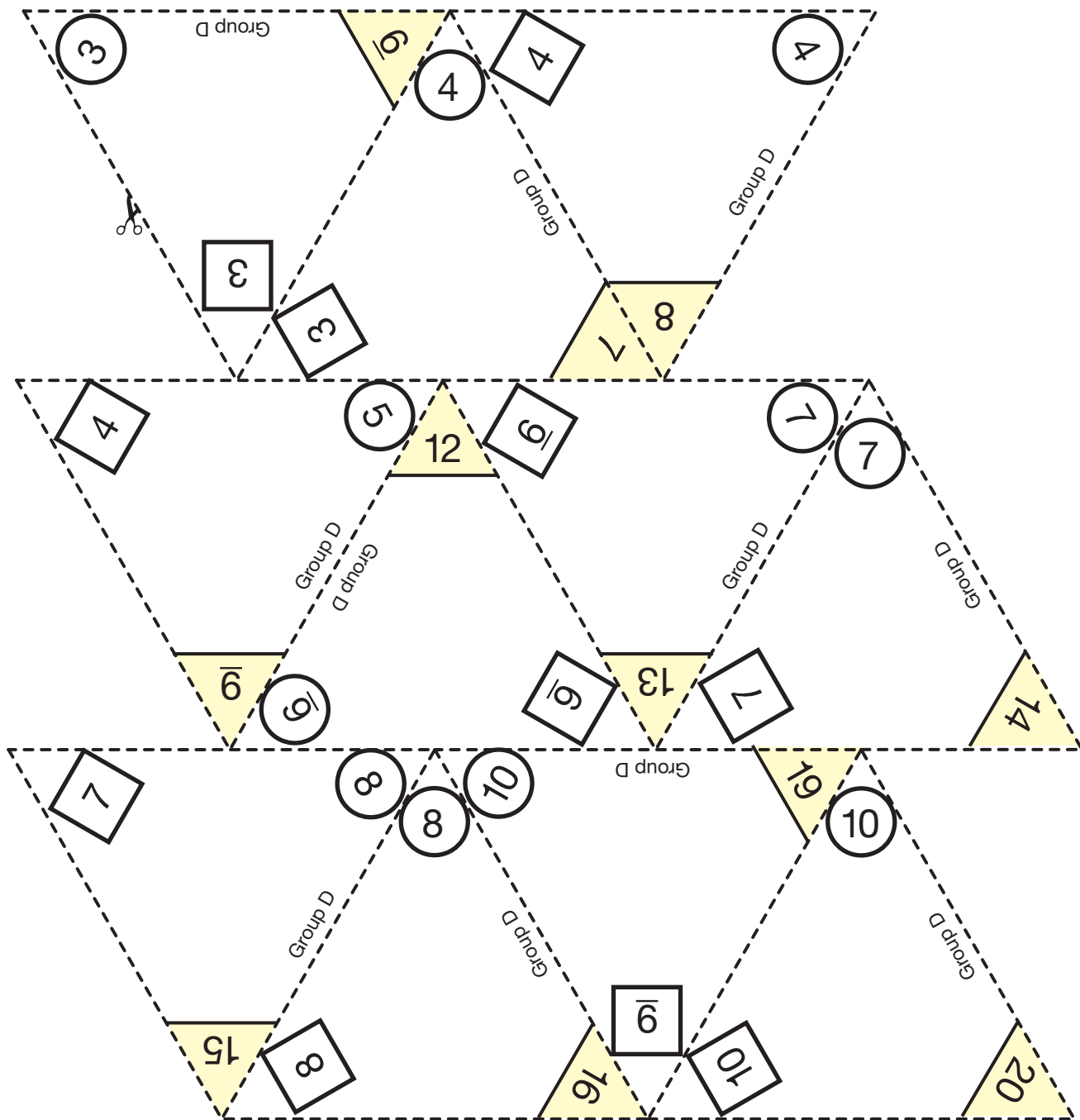
- B.** What is the volume of the largest rock she could add so that the water does not rise above 100 cc?

\_\_\_\_\_

\_\_\_\_\_

# Triangle Flash Cards: Group D

- To practice an addition fact, cover the corner with the highest number. Add the two uncovered numbers.
- To practice a subtraction fact, cover one of the smaller numbers and subtract from the highest number.



# Subtraction Facts I Know

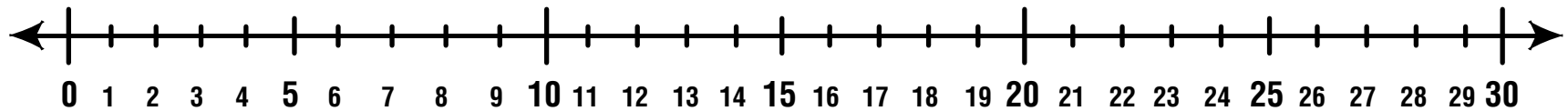
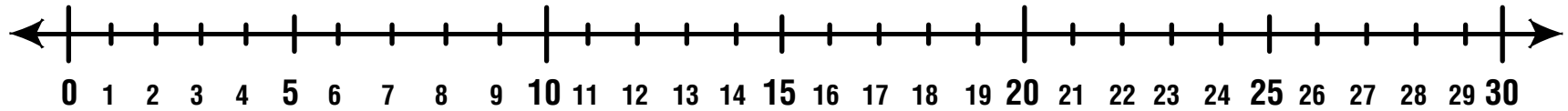
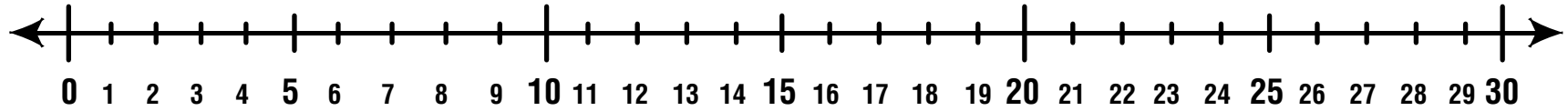
Circle the subtraction facts you know and can answer quickly.

$\begin{array}{r} 0 \\ -0 \\ \hline 0 \end{array}$	$\begin{array}{r} 1 \\ -0 \\ \hline 1 \end{array}$	$\begin{array}{r} 2 \\ -0 \\ \hline 2 \end{array}$	$\begin{array}{r} 3 \\ -0 \\ \hline 3 \end{array}$	$\begin{array}{r} 4 \\ -0 \\ \hline 4 \end{array}$	$\begin{array}{r} 5 \\ -0 \\ \hline 5 \end{array}$	$\begin{array}{r} 6 \\ -0 \\ \hline 6 \end{array}$	$\begin{array}{r} 7 \\ -0 \\ \hline 7 \end{array}$	$\begin{array}{r} 8 \\ -0 \\ \hline 8 \end{array}$	$\begin{array}{r} 9 \\ -0 \\ \hline 9 \end{array}$
$\begin{array}{r} 1 \\ -1 \\ \hline 0 \end{array}$	$\begin{array}{r} 2 \\ -1 \\ \hline 1 \end{array}$	$\begin{array}{r} 3 \\ -1 \\ \hline 2 \end{array}$	$\begin{array}{r} 4 \\ -1 \\ \hline 3 \end{array}$	$\begin{array}{r} 5 \\ -1 \\ \hline 4 \end{array}$	$\begin{array}{r} 6 \\ -1 \\ \hline 5 \end{array}$	$\begin{array}{r} 7 \\ -1 \\ \hline 6 \end{array}$	$\begin{array}{r} 8 \\ -1 \\ \hline 7 \end{array}$	$\begin{array}{r} 9 \\ -1 \\ \hline 8 \end{array}$	$\begin{array}{r} 10 \\ -1 \\ \hline 9 \end{array}$
$\begin{array}{r} 2 \\ -2 \\ \hline 0 \end{array}$	$\begin{array}{r} 3 \\ -2 \\ \hline 1 \end{array}$	$\begin{array}{r} 4 \\ -2 \\ \hline 2 \end{array}$	$\begin{array}{r} 5 \\ -2 \\ \hline 3 \end{array}$	$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$	$\begin{array}{r} 7 \\ -2 \\ \hline 5 \end{array}$	$\begin{array}{r} 8 \\ -2 \\ \hline 6 \end{array}$	$\begin{array}{r} 9 \\ -2 \\ \hline 7 \end{array}$	$\begin{array}{r} 10 \\ -2 \\ \hline 8 \end{array}$	$\begin{array}{r} 11 \\ -2 \\ \hline 9 \end{array}$
$\begin{array}{r} 3 \\ -3 \\ \hline 0 \end{array}$	$\begin{array}{r} 4 \\ -3 \\ \hline 1 \end{array}$	$\begin{array}{r} 5 \\ -3 \\ \hline 2 \end{array}$	$\begin{array}{r} 6 \\ -3 \\ \hline 3 \end{array}$	$\begin{array}{r} 7 \\ -3 \\ \hline 4 \end{array}$	$\begin{array}{r} 8 \\ -3 \\ \hline 5 \end{array}$	$\begin{array}{r} 9 \\ -3 \\ \hline 6 \end{array}$	$\begin{array}{r} 10 \\ -3 \\ \hline 7 \end{array}$	$\begin{array}{r} 11 \\ -3 \\ \hline 8 \end{array}$	$\begin{array}{r} 12 \\ -3 \\ \hline 9 \end{array}$
$\begin{array}{r} 4 \\ -4 \\ \hline 0 \end{array}$	$\begin{array}{r} 5 \\ -4 \\ \hline 1 \end{array}$	$\begin{array}{r} 6 \\ -4 \\ \hline 2 \end{array}$	$\begin{array}{r} 7 \\ -4 \\ \hline 3 \end{array}$	$\begin{array}{r} 8 \\ -4 \\ \hline 4 \end{array}$	$\begin{array}{r} 9 \\ -4 \\ \hline 5 \end{array}$	$\begin{array}{r} 10 \\ -4 \\ \hline 6 \end{array}$	$\begin{array}{r} 11 \\ -4 \\ \hline 7 \end{array}$	$\begin{array}{r} 12 \\ -4 \\ \hline 8 \end{array}$	$\begin{array}{r} 13 \\ -4 \\ \hline 9 \end{array}$
$\begin{array}{r} 5 \\ -5 \\ \hline 0 \end{array}$	$\begin{array}{r} 6 \\ -5 \\ \hline 1 \end{array}$	$\begin{array}{r} 7 \\ -5 \\ \hline 2 \end{array}$	$\begin{array}{r} 8 \\ -5 \\ \hline 3 \end{array}$	$\begin{array}{r} 9 \\ -5 \\ \hline 4 \end{array}$	$\begin{array}{r} 10 \\ -5 \\ \hline 5 \end{array}$	$\begin{array}{r} 11 \\ -5 \\ \hline 6 \end{array}$	$\begin{array}{r} 12 \\ -5 \\ \hline 7 \end{array}$	$\begin{array}{r} 13 \\ -5 \\ \hline 8 \end{array}$	$\begin{array}{r} 14 \\ -5 \\ \hline 9 \end{array}$
$\begin{array}{r} 6 \\ -6 \\ \hline 0 \end{array}$	$\begin{array}{r} 7 \\ -6 \\ \hline 1 \end{array}$	$\begin{array}{r} 8 \\ -6 \\ \hline 2 \end{array}$	$\begin{array}{r} 9 \\ -6 \\ \hline 3 \end{array}$	$\begin{array}{r} 10 \\ -6 \\ \hline 4 \end{array}$	$\begin{array}{r} 11 \\ -6 \\ \hline 5 \end{array}$	$\begin{array}{r} 12 \\ -6 \\ \hline 6 \end{array}$	$\begin{array}{r} 13 \\ -6 \\ \hline 7 \end{array}$	$\begin{array}{r} 14 \\ -6 \\ \hline 8 \end{array}$	$\begin{array}{r} 15 \\ -6 \\ \hline 9 \end{array}$
$\begin{array}{r} 7 \\ -7 \\ \hline 0 \end{array}$	$\begin{array}{r} 8 \\ -7 \\ \hline 1 \end{array}$	$\begin{array}{r} 9 \\ -7 \\ \hline 2 \end{array}$	$\begin{array}{r} 10 \\ -7 \\ \hline 3 \end{array}$	$\begin{array}{r} 11 \\ -7 \\ \hline 4 \end{array}$	$\begin{array}{r} 12 \\ -7 \\ \hline 5 \end{array}$	$\begin{array}{r} 13 \\ -7 \\ \hline 6 \end{array}$	$\begin{array}{r} 14 \\ -7 \\ \hline 7 \end{array}$	$\begin{array}{r} 15 \\ -7 \\ \hline 8 \end{array}$	$\begin{array}{r} 16 \\ -7 \\ \hline 9 \end{array}$
$\begin{array}{r} 8 \\ -8 \\ \hline 0 \end{array}$	$\begin{array}{r} 9 \\ -8 \\ \hline 1 \end{array}$	$\begin{array}{r} 10 \\ -8 \\ \hline 2 \end{array}$	$\begin{array}{r} 11 \\ -8 \\ \hline 3 \end{array}$	$\begin{array}{r} 12 \\ -8 \\ \hline 4 \end{array}$	$\begin{array}{r} 13 \\ -8 \\ \hline 5 \end{array}$	$\begin{array}{r} 14 \\ -8 \\ \hline 6 \end{array}$	$\begin{array}{r} 15 \\ -8 \\ \hline 7 \end{array}$	$\begin{array}{r} 16 \\ -8 \\ \hline 8 \end{array}$	$\begin{array}{r} 17 \\ -8 \\ \hline 9 \end{array}$
$\begin{array}{r} 9 \\ -9 \\ \hline 0 \end{array}$	$\begin{array}{r} 10 \\ -9 \\ \hline 1 \end{array}$	$\begin{array}{r} 11 \\ -9 \\ \hline 2 \end{array}$	$\begin{array}{r} 12 \\ -9 \\ \hline 3 \end{array}$	$\begin{array}{r} 13 \\ -9 \\ \hline 4 \end{array}$	$\begin{array}{r} 14 \\ -9 \\ \hline 5 \end{array}$	$\begin{array}{r} 15 \\ -9 \\ \hline 6 \end{array}$	$\begin{array}{r} 16 \\ -9 \\ \hline 7 \end{array}$	$\begin{array}{r} 17 \\ -9 \\ \hline 8 \end{array}$	$\begin{array}{r} 18 \\ -9 \\ \hline 9 \end{array}$
$\begin{array}{r} 10 \\ -10 \\ \hline 0 \end{array}$	$\begin{array}{r} 11 \\ -10 \\ \hline 1 \end{array}$	$\begin{array}{r} 12 \\ -10 \\ \hline 2 \end{array}$	$\begin{array}{r} 13 \\ -10 \\ \hline 3 \end{array}$	$\begin{array}{r} 14 \\ -10 \\ \hline 4 \end{array}$	$\begin{array}{r} 15 \\ -10 \\ \hline 5 \end{array}$	$\begin{array}{r} 16 \\ -10 \\ \hline 6 \end{array}$	$\begin{array}{r} 17 \\ -10 \\ \hline 7 \end{array}$	$\begin{array}{r} 18 \\ -10 \\ \hline 8 \end{array}$	$\begin{array}{r} 19 \\ -10 \\ \hline 9 \end{array}$



Name \_\_\_\_\_ Date \_\_\_\_\_

# Constant Math Hopper Number Lines



# Children's Zoo Produce List

## Food Needed Each Day:

- 14 Bags of Yellow Squash
- 12 Hard-Cooked Eggs
- 10 Bunches of Carrots
- 13 Bags of Oranges
- 9 Bags of Zucchini
- 18 Bunches of Bananas
- 15 Pounds of Beans

## Three-Day Order List:

- \_\_\_\_\_ Bags of Yellow Squash
- \_\_\_\_\_ Hard-Cooked Eggs
- \_\_\_\_\_ Bunches of Carrots
- \_\_\_\_\_ Bags of Oranges
- \_\_\_\_\_ Bags of Zucchini
- \_\_\_\_\_ Bunches of Bananas
- \_\_\_\_\_ Pounds of Beans

# How Many



Dear Family Member:

In class we have been learning how to solve multiplication problems by using various strategies (e.g., skip counting, repeated addition, drawings, constant math hoppers). Ask your child to explain how he or she solved each problem and what each number represents in the number sentences.

Thank you.

**Draw a picture for each problem. Then write a number sentence to answer the question.**

1. Draw 5 monkey faces. Draw 2 eyes on each monkey.

How many eyes are there in all? \_\_\_\_\_

Number sentence \_\_\_\_\_

2. Draw 3 cars. Draw 4 tires on each car.

How many tires are there in all? \_\_\_\_\_

Number sentence \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

3. Draw 3 vases. Draw 3 flowers in each vase.

How many flowers are there? \_\_\_\_\_

Number sentence \_\_\_\_\_

4. Draw 3 hands. Each hand has 5 fingers.

How many fingers are there in all? \_\_\_\_\_

Number sentence \_\_\_\_\_

# Plan Your Strategy



Dear Family Member:

In math class, the second-grade students are exploring the concept of multiplication. They are using many strategies to solve the problem situations. Help your child read these problems if necessary. Let him or her tell you what he or she will do to solve each one.

Thank you.

**Solve these problems. Draw pictures or write words to show how you solve each problem. Write a number sentence for each.**

1. Kim reads to her grandma every day for 10 minutes. How many minutes does she read to her grandma in 4 days?

Number sentence \_\_\_\_\_

2. Four friends shared 20 orange segments equally. How many orange segments did each friend get?

Number sentence \_\_\_\_\_

3. Suzanne has 3 baskets. She places 3 cars in each basket. How many cars does she have?

Number sentence \_\_\_\_\_

4. **A.** Use the rule to find the answer. The first two are done for you.

**Rule: Double the Number**

Number in the Group	Number Sentence	Answer
1	$2 \times \boxed{1} =$	2
2	$2 \times \boxed{2} =$	4
3	$2 \times \boxed{\phantom{0}} =$	
4	$2 \times \boxed{\phantom{0}} =$	
5	$2 \times \boxed{\phantom{0}} =$	
6	$2 \times \boxed{\phantom{0}} =$	

- B.** What do you notice about your answers? Be ready to talk about the pattern in class.

# Collection of Stickers

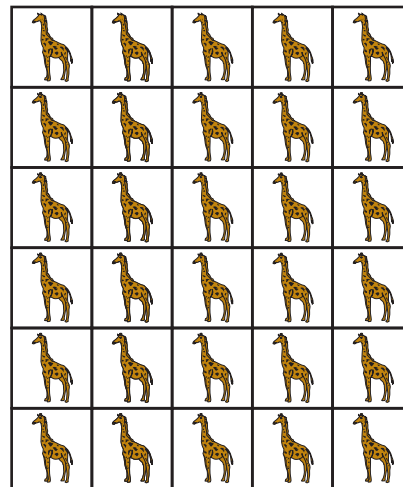


Dear Family Member:

Your child has been learning to use various strategies to solve multiplication problems. For example, he or she may use skip counting, repeated addition, or arrays (an arrangement of objects in rows and columns). Your child may show his or her work in words, pictures, or number sentences.

Thank you.

1. Levi bought a page of giraffe stickers.



**A.** How many stickers did he buy?  
Show or tell how you found your answer.

**B.** Levi wants to share his stickers equally with his little sister. How many rows will he give her? Show or tell how you found your answer.

**C.** How many stickers will Levi have left? Show or tell how you found your answer.

- 2. A.** Draw a page of stickers with three rows. Draw four stickers in each row. Write a number sentence to show the total number of stickers on the page.

Number sentence \_\_\_\_\_

- B.** If each sticker costs 2 cents, What will be the total cost of the stickers? Show how you found your answer.



# Sharing Problems

1. The zookeeper needs to share 16 carrots equally with 4 apes. How many carrots will each ape receive?
2. The zookeeper has 15 apples and plans to give 5 apples to each toucan, a very colorful bird. How many toucans will get apples?
3. The zookeeper feeds the lions 3 pounds of meat each day. How much meat do the lions eat in 5 days?
4. The lions eat 3 pounds of meat each day. The zoo has 15 pounds of meat. How many days can the zookeeper feed the lions?
5. One day the zookeeper brought 18 carrots to share equally with the 4 apes. How many carrots will each ape get?
6. A class of 18 students is going on a field trip to the zoo. There are 4 adults who will drive the students. How many students should go in each van?

# Share Equally



Dear Family Member:

In our study of division, your child has been learning to use various strategies and tools to solve fair share problems. For example, students use number lines, drawings and connecting cubes.

Thank you.

**Solve these problems. Show or tell how you solved the problem. Remember to label your answer.**

1. Kim has 21 dog treats and 7 new puppies. Kim shares the dog treats fairly among her puppies. How many will each puppy get?
2. There are 18 stickers. Share them equally among three children. How many will each child get?
3. There are 30 bales of hay and 5 elephants. Share the hay equally. How many bales of hay will each elephant get?
4. There are 15 dirty windows in the bird house and 3 cleaning men. They each clean the same number of windows. How many windows will each man clean?

# It's for the Birds



Dear Family Member:

In class, your child continues to use various strategies and tools to solve division problems. This helps your child develop a good understanding of division concepts. Ask your child to explain how he or she solved the problems and what the numbers in the number sentence represent.

Thank you.

**Help the mother birds share the food with their babies. Show or tell how you solved the problem.**

1. Each baby bird needs 2 leaves of spinach. Mama Toucan has 10 leaves. Draw the number of baby birds she can feed.

How many baby birds ate spinach? \_\_\_\_\_

2. Each baby bird needs 4 grapes. Mama Parrot has 8 grapes. Draw the number of baby birds she can feed.

How many baby birds ate grapes? \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

3. Each baby bird needs 4 apple chunks. Mama Macaw has 16 apple chunks. Draw the number of baby birds she can feed.

How many baby birds ate apple chunks? \_\_\_\_\_

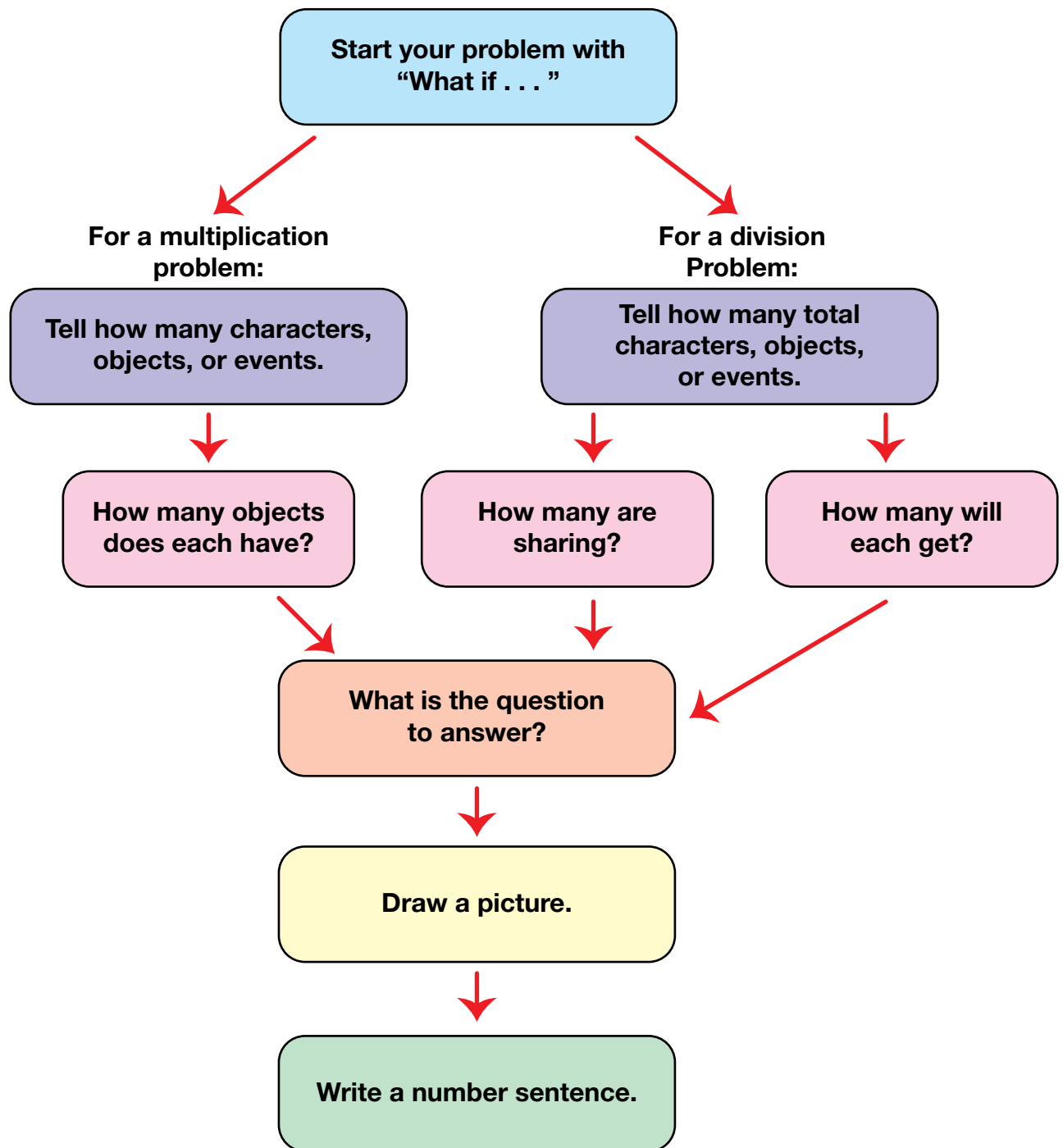
4. Each baby bird needs 2 raisins. Mama Finch has 18 raisins. Draw the number of baby birds she can feed.

How many baby birds ate raisins? \_\_\_\_\_

5. Each baby bird needs 8 seeds. Mama Cockatoo has 24 seeds. Draw the number of baby birds she can feed.

How many baby birds ate seeds? \_\_\_\_\_

# Steps for Writing “What if” Problems



# Each Orange Had 8 Slices Problems

1. I saw 3 red flowers. Each red flower had 6 pretty petals. Each petal had 2 tiny black bugs.

How many red flowers were there? \_\_\_\_\_

How many pretty petals were there? \_\_\_\_\_

How many tiny black bugs were there in all? \_\_\_\_\_

2. On my way to lunch I ate 2 juicy oranges. Each orange had 8 slices. Each slice had 2 small seeds.

How many juicy oranges were there? \_\_\_\_\_

How many slices were there? \_\_\_\_\_

How many seeds were there in all? \_\_\_\_\_

3. On my way to the store I saw 4 trees. Each tree had 3 bird's nests. Each bird's nest had 2 spotted eggs.

How many trees were there? \_\_\_\_\_

How many bird's nests were there? \_\_\_\_\_

How many spotted eggs were there in all? \_\_\_\_\_

4. On my way home I passed 3 yellow houses. Each yellow house had 3 red flower pots. Each flower pot had 5 blue flowers.

How many yellow houses were there? \_\_\_\_\_

How many red flower pots were there? \_\_\_\_\_

How many blue flowers were there in all? \_\_\_\_\_

# Write a Multiplication or Division Problem



Dear Family Member:

We have been writing multiplication and division word problems in class. Help your child think of a multiplication or division situation that he or she can write as a word problem and solve. Some examples are listed below:

- 5 dogs with 4 bones each
- 3 dragons with 6 teeth each
- 14 toys shared equally among 7 children
- 12 carrots shared equally among 4 rabbits

Thank you.

Draw a picture of a multiplication or division problem.

Write your problem.

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