Instructional Packet

3rd Grade

Week 3

This book belongs to

This packet is compliments of
Genesee Intermediate School District
to support your learning at home!

GENESEE INTERMEDIATE SCHOOL DISTRICT
LEADERSHIP ◆ SERVICE ◆ INNOVATION
Partnering for success!

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Week 3

Please work with your child to complete the activities in the packet.

Your child may do these on their own or you may support them as needed.

Bug Power

Teamwork

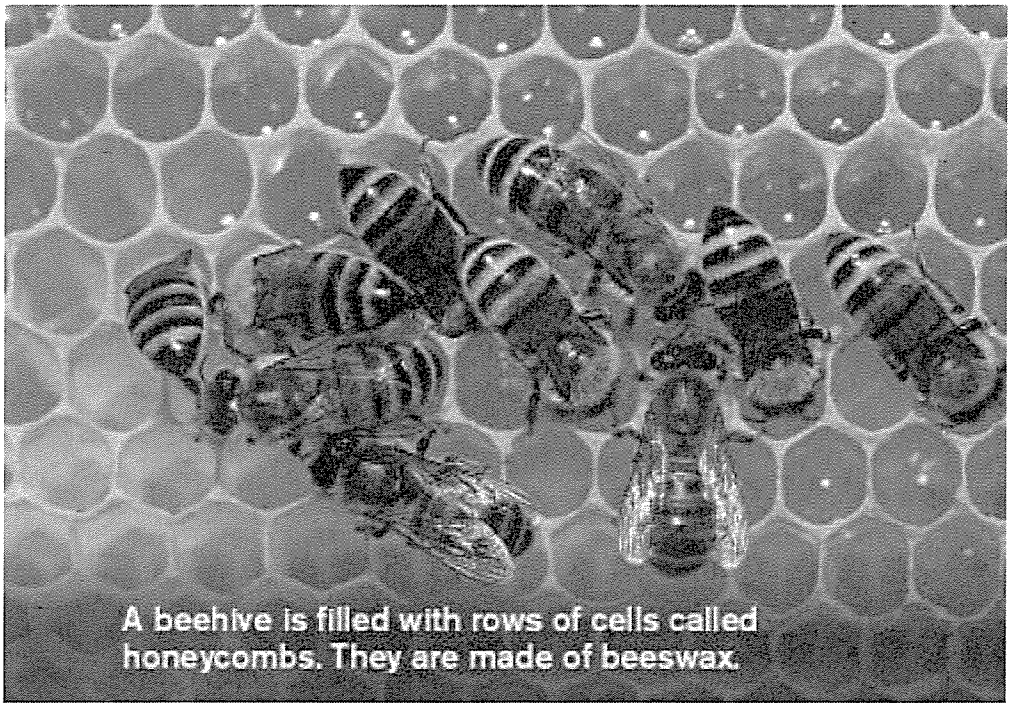
How do some insects work together?

What do termites, ants, and honeybees have in common? They are all **social (SOH-shuhl) insects**. Social insects live together in large groups called **colonies**. Social insects always have at least one queen. The queen is the mother. She lays the eggs. The rest of the group divides the work.

Amazing Ants

Ants often live in underground nests. The nests have thousands of rooms connected by tunnels. Millions of ants may live together in a nest. It can contain more than one queen. Worker ants take care of all the other ants. Larger worker ants are called soldier ants. Their job is to guard the nest.

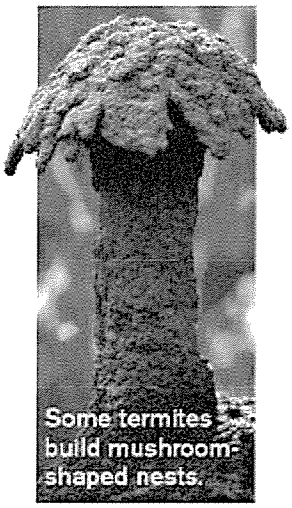
Busy Bees



Gerry Ellis/Getty Images

Life in a honeybee hive is busy. Up to 60,000 bees may live together. Only one queen bee lives in a hive. Worker bees do all the chores. They care for the young bees and the queen. They clean and guard the hive and control the hive's temperature. The workers also make food for all the bees in the hive.

Talented Termites



Oxford Scientific/Jupiter Images

Termites build tall nests in wood or soil. A nest can be up to 40 feet high. Millions of termites may live in one nest. Every colony has a king and a queen. They make the eggs. Worker termites build the nest and care for the eggs. Soldier termites protect the colony.

Name: _____ **Date:** _____

1. According to the text, what do termites, ants, and honeybees have in common?

A. They are all social insects.

B. They are all antisocial insects.

C. They are all worker insects.

D. They are all soldier insects.

2. To organize this text, the author divides it into sections with subheadings. What does the author describe in the section with the subheading "How do some insects work together?"

A. what social insects are

B. an ant colony's underground nest

C. all of the chores that worker bees do

D. the job of soldier termites

3. Read these sentences from the text.

"Ants often live in underground nests. The nests have thousands of rooms connected by tunnels. Millions of ants may live together in a nest.

[...]

Termites build tall nests in wood or soil. A nest can be up to 40 feet high. Millions of termites may live in one nest."

Based on this information, how are ants and termites different?

A. Ants live underground, whereas termites live above ground.

B. Ants live in nests, whereas termites live in hives.

C. Ants only have one queen, whereas termites can have more than one queen.

D. Ants have soldier ants that protect the colony, whereas termites do not.

4. Based on the information in the text, how are worker ants and worker bees similar?

A. Worker ants and worker bees both care for the other insects in their colonies.

B. Worker ants and worker bees both lay eggs for their colonies.

C. Worker ants and worker bees both build homes for their colonies.

D. Worker ants and worker bees both make food for their colonies.

5. What is a main idea of this text?

A. Soldier termites protect the colony.

B. Social insects always have at least one queen.

C. Social insects live and work together in colonies.

D. Ants often live in underground nests.

6. Read this sentence from the text.

"How do some insects work together?"

Why might the author have begun the text with this question?

A. to introduce a key question that the text will answer

B. to signal an argument that the text will be making

C. to persuade readers to answer the question

D. to show the author's confusion about how insects work together

7. Choose the answer that best completes the sentence.

An ant nest can contain more than one queen, _____ a beehive only contains one queen.

A. like

B. if

C. but

D. then

8. Social insects always have at least one queen. What does the queen do?

9. Describe the work of worker ants, worker bees, and worker termites.

Support your answer with evidence from the text.

10. Worker insects are just as important as queen insects.

Form an argument for or against this statement.

Support your answer with evidence from the text.

WRITING PROMPT

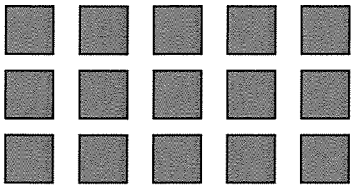
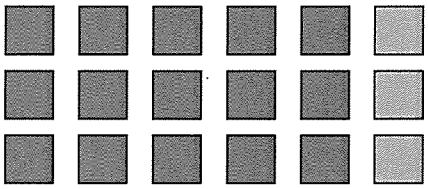
Week 3

Make a list of 5 things you like to do to get exercise. Check off each one as you complete it throughout the week.

CCSS.MATH.CONTENT.3.OA.A.1
Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5 × 7.

hand2mind

Uses five facts to help solve these problems. Draw an array that models the multiplication fact. Then, double the array. Then, double the array again.

Array 1	Array 2
 3 × 5 = 15	 3 × 6 = 18
6 × 5 = _____	6 × 6 = _____
5 × 2 = _____	4 × 2 = _____
8 × 5 = _____	8 × 4 = _____
7 × 5 = _____	6 × 7 = _____

Solve each problem using five facts.
Draw the array that helped you solve it.

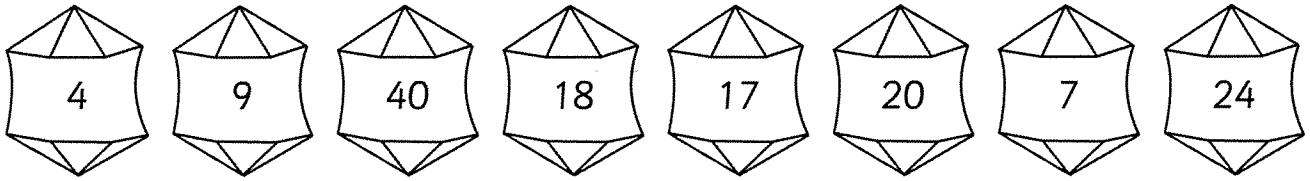
Array 1	Array 2
$6 \times 3 =$ _____	$8 \times 4 =$ _____
$4 \times 4 =$ _____	$6 \times 4 =$ _____
$9 \times 6 =$ _____	$6 \times 2 =$ _____
$7 \times 4 =$ _____	$6 \times 8 =$ _____
$6 \times 7 =$ _____	$4 \times 9 =$ _____

MOON MISSION

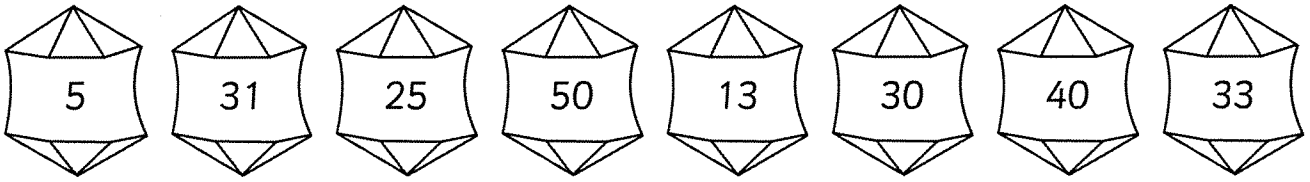
CCSS.MATH.CONTENT.3.OA.D.9
Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

EducationCity.com

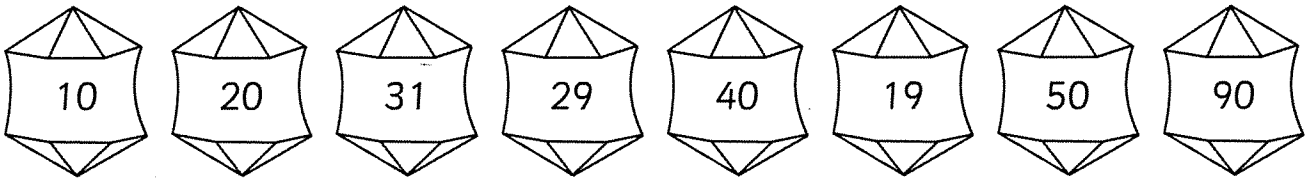
Stig only wants to use crystals that are multiples of 2.
Help him by circling the crystals that are multiples of 2.



Stig only wants to use crystals that are multiples of 5.
Help him by circling the crystals that are multiples of 5.



Stig only wants to use crystals that are multiples of 10.
Help him by circling the crystals that are multiples of 10.



Color in all the numbers that are multiples of 10, multiples of 5 and finally multiples of 2.
Write down which numbers are not colored in below.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

The numbers not colored in are:

CCSS.MATH.CONTENT.3.OA.D.9
Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

10 times table

Count in 10s, color, and find a pattern.

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

Write the answers.

1 x 10 = 10 | 2 x 10 = ☐ | 3 x 10 = ☐ | 4 x 10 = ☐

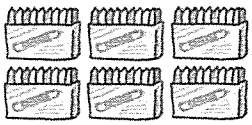
5 x 10 = ☐ | 6 x 10 = ☐ | 7 x 10 = ☐ | 8 x 10 = ☐

10 x 10 = ☐ | 9 x 10 = ☐

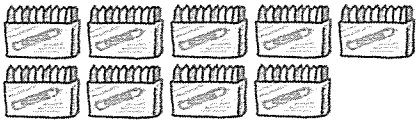
Each box contains 10 crayons. How many crayons are there altogether?

2 sets of 10 | 2 x 10 = 20 crayons

☐ sets of 10 | ☐ x ☐ = ☐ crayons



☐ sets of 10 | ☐ x ☐ = ☐ crayons



☐ sets of 10 | ☐ x ☐ = ☐ crayons

CCSS.MATH.CONTENT.3.OA.D.9
Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

2 times table

Count in 2s, color, and find a pattern.

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25

Write the answers.

1 x 2 = 2 | 2 x 2 = | 3 x 2 = | 4 x 2 =

5 x 2 = | 6 x 2 = | 7 x 2 = | 8 x 2 =

9 x 2 = | 10 x 2 =

How many ears?

5 sets of 2 5 x 2 = 10 ears

sets of 2 x = ears

sets of 2 x = ears

sets of 2 x = ears

Name:

See, Feel and Hear

For each of the character traits, what do you see, hear and do? See the example:

Kindness see: *helping hand for tidying, being a friend to someone looking lonely, lending a pencil*

Kindness feel: *you belong, others care, feel good.*

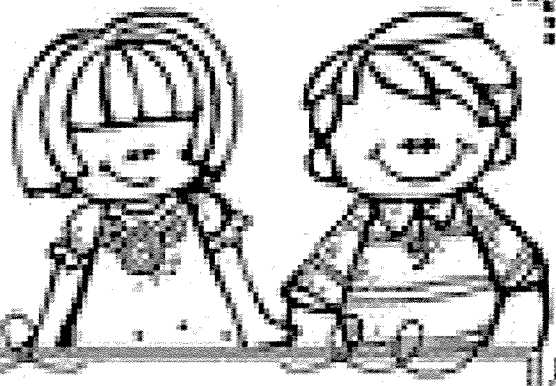
Kindness hear: *a compliment, an offer to play, offer to help with a project.*

Name a trait and complete the 'see, hear and do'.

_____

trait

When I grow up...



I'm going to ...

_____

_____

_____

_____

I'll probably look like this...

I'm going to be a _____

I'll probably live _____

Fact Extensions

Home Link 2-1

NAME DATE TIME

Family Note Today your child used basic facts to solve similar problems with larger numbers. These similar problems are known as fact extensions. For example, the basic fact 6 + 7 = 13 helps solve the fact extension 60 + 70 = 130. Talk to your child about the patterns in each set of problems. Help your child think of more fact extensions to complete this Home Link.

Please return this Home Link to school tomorrow.

Write the answer for each problem.

SRB 114-115

① I know: $9 + 7$	This helps me know:	$19 + 7$	$69 + 7$	$99 + 7$
② I know: $8 + 4$	This helps me know:	$18 + 4$	$58 + 4$	$278 + 4$
③ I know: $15 - 7$	This helps me know:	$35 - 7$	$65 - 7$	$105 - 7$
④ I know: $13 - 8$	This helps me know:	$23 - 8$	$123 - 8$	$483 - 8$
⑤ I know: $6 + 7$	This helps me know:	$60 + 70$	$600 + 700$	$6{,}000 + 7{,}000$

Make up another set of fact extensions.

⑥ I know: ☐ ☐	This helps me know:	☐ ☐	☐ ☐	☐ ☐

Number Stories

Home Link 2-2

NAME DATE TIME

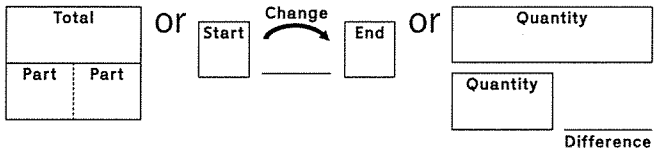
Family Note Today your child reviewed parts-and-total, change, and comparison diagrams. These diagrams help organize the information in a number story. For more information, see *Student Reference Book*, page 76. Remind your child to write the unit with the answer. For example, the problem below asks about the number of cans, so the answer should include cans as the unit.

Please return this Home Link to school tomorrow.

SRB 30-31, 76

For the problem below:

- Write a number model. Use ? for the unknown.
- You may draw a diagram like the ones shown below or a picture to help.



- Solve the problem and write your answer.
- Explain how you know your answer makes sense.

The second- and third-grade classes collected 750 cans to recycle. The second graders collected 300 cans. How many cans did the third graders collect?

Number model: _____

Answer the question: _____
(unit)

Check: How do you know your answer makes sense?

_____

_____

More Number Stories

Home Link 2-3

NAME DATE TIME

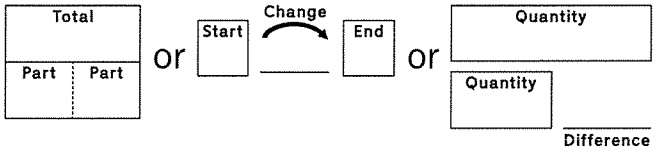
Family Note Today your child solved more number stories using diagrams or pictures to help organize the information in the problems. Remind your child to write the unit with the answer. For example, the unit in the problem below is dollars, which can be represented by the dollar sign ($). Talk with your child about how he or she knows an answer makes sense.

Please return this Home Link to school tomorrow.

SRB 76, 30-31

For the number story below:

- Write a number model. Use a ? for the unknown.
- You may draw a diagram like those shown below or a picture to help.



- Solve and write your answer with the unit.
- Explain how you know your answer makes sense.

Jasmine had $35. She earned some money helping her neighbors. Now she has $52. How much money did she earn?

Number model: _____

Answer the question: _____ (unit)

Check: How do you know your answer makes sense?

_____

_____

Multistep Number Stories, Part 1

Home Link 2-4

NAME DATE TIME

Family Note Today your child practiced solving number stories with two or more steps. These solution strategies often combine at least two different operations (addition, subtraction, multiplication, or division). Children used drawings, words, and number models to help keep track of their thinking. Encourage your child to draw pictures or use objects to act out the stories below. Help your child make sense of each story by asking questions such as: *What do you know from the story? What do you want to find out? What is your plan? What will you do first? Next? Does your answer make sense?*

Please return this Home Link to school tomorrow.

SRB 30-31

Solve each problem. Draw pictures or use words or number models to help keep track of your thinking. Remember to write the unit.

(1) You have 12 red balloons and 13 blue balloons. Then 5 balloons pop. How many balloons do you have left?

Answer: _____
(unit)

(2) You have 3 bags of marbles with 6 marbles in each bag. Then you find 8 more marbles. How many marbles do you have now?

Answer: _____
(unit)

Multistep Number Stories, Part 2

Home Link 2-5

NAME DATE TIME

Family Note Today your child practiced solving additional number stories with two or more steps and writing number models for each step. Help your child make sense of the stories below by asking: *What do you know from the story? What do you want to find out? What is your plan? What will you do first? Next? Have you answered the question? Does your answer make sense?*

Please return this Home Link to school tomorrow.

SRB 30-31

Solve each problem. Show your work with pictures, words, or numbers. Write number models to keep track of your thinking. Remember to write the unit.

(1) Each basket in basketball is worth 2 points. Cathy makes 5 baskets and scores 6 more points with free throws. How many points did she score in all?

Number models: _____

_____

Answer: _____
(unit)

(2) Elias reads 4 chapters. Each chapter has 10 pages. Then he reads 8 more pages. How many pages does Elias read in all?

Number models: _____

_____

Answer: _____
(unit)

Equal-Groups Number Stories

Home Link 2-6

NAME DATE TIME

Family Note Today your child practiced using efficient ways to solve equal-groups number stories, such as using repeated addition, skip counting, or using facts he or she knows. Children also talked about what multiplying by 0 or 1 means. Encourage your child to use the number stories to explain why multiplying by 0 equals 0 and multiplying by 1 equals the number in one group.

Please return this Home Link to school tomorrow.

Solve. Show your thinking using drawings, words, or number models.

A pack of Brilliant Color Markers contains 5 markers. Each pack costs $2.

① If you buy 6 packs, how many markers will you have?

Answer: _____
(unit)

② How much do 0 packs of Brilliant Color Markers cost?

Answer: _____
(unit)

Explain your answer. _____

_____

③ Make up a number story to match the number sentence below:

$1 \times 5 = 5$

_____

_____

Representing Situations with Arrays

Home Link 2-7

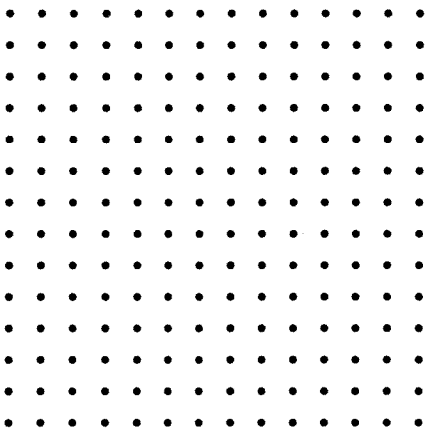
NAME DATE TIME

Family Note Today your child practiced drawing arrays to represent number stories. Your child also played *Array Bingo* to practice multiplication facts with arrays and equal groups.

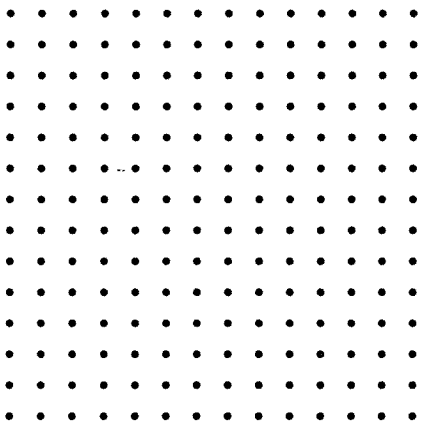
Please return this Home Link to school tomorrow.

SRB 41-43

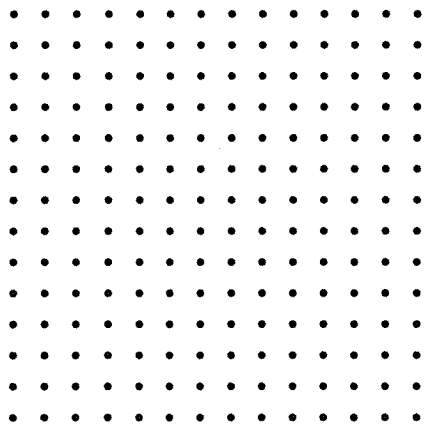
① There are 12 trombone players in a parade.
Show at least 3 different ways they can be arranged into arrays.
Show your work on the dot grids below.
Write a number model for each array.



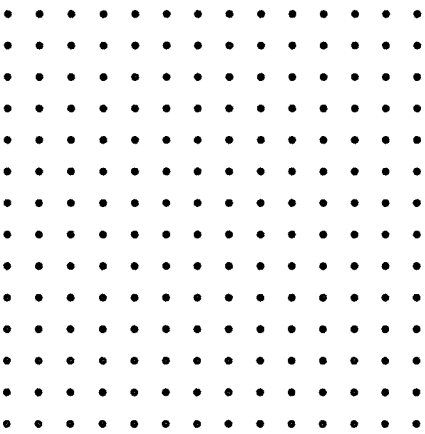
Number model: _____



Number model: _____



Number model: _____



Number model: _____

② Can you make an array with 5 rows for the 12 players? Explain. _____

_____

_____

Creating Mathematical Representations

Home Link 2-8

NAME DATE TIME

Family Note Your child is learning how to create mathematical representations, such as drawings, words, and number models, to help solve division problems. In this lesson we solved division problems with and without remainders. Talk to your child about the representations he or she can use to help solve Problems 1 and 2 and how to handle the remainder in Problem 2.

Please return this Home Link to school tomorrow.

Solve. Show your thinking in a drawing or number model.

SRB 8-11, 39-40

(1) Amit won a pack of 24 stickers in a school contest.
He put the stickers into 3 equal piles, one for himself and one each for his friends, Danny and Sue. How many stickers will each get?

Answer: Each gets _____ stickers.

(2) Parents are organizing a field trip to the zoo for Amit's class.
They want to take the 23 children in their cars.
If each car can carry 5 children, how many cars are needed?

Answer: _____ cars are needed for the field trip.

Modeling with Division

Home Link 2-9

NAME DATE TIME

Family Note Today your child solved equal-sharing number stories. Sometimes when we share or divide a quantity, there are parts left over, or remainders. Your child practiced recording division number models with remainders. For example, 10 marbles shared 3 ways could be recorded as $10 \div 3 \rightarrow 3$ R 1, which can be read as "10 divided by 3 gives us 3 with a remainder of 1." Help your child solve the problems below. You may want to use counters, such as coins or dry pasta, to act out each story.

Please return this Home Link to school tomorrow.

SRB 39-40

Draw pictures to show someone at home how you can use division to solve number stories. Write a number model for each story.

① Jamal gives 24 marbles to 4 friends. Each friend gets the same number of marbles. How many marbles does each friend get? _____ (unit)

How many marbles are left over? _____ (unit)

Number model: _____

② Eliza has 29 flowers to arrange in 5 vases. She puts the same number of flowers in each vase. How many flowers does she put in each vase? _____ (unit)

How many flowers are left over? _____ (unit)

Number model: _____

③ A sheet of stamps has 46 stamps. A complete row has 10 stamps. How many complete rows are there? _____ (unit)

How many stamps are left over? _____ (unit)

Number model: _____

Division with Arrays

Home Link 2-10

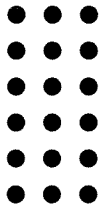
NAME DATE TIME

Family Note Today your child practiced using arrays to model problems and show division with and without remainders. Children also learned a new game called *Division Arrays*.

Please return this Home Link to school tomorrow.

Use arrays to represent each division problem. If there is a remainder, show it in the Leftovers column.

SRB 41-43, 236-239

	Problem	Sketch of Array Formed	Leftovers
Example	23 ÷ 6		
1.	15 ÷ 3		
2.	32 ÷ 5		

③ List household items you could share with your family members that might have leftovers, for example, spoons, plates, and cups.

_____

Practice

④ 5 × 5 = _____

⑤ 40 = 5 × _____

⑥ 20 ÷ 5 = _____

⑦ 45 ÷ _____ = 5

Frames and Arrows

Home Link 2-11

NAME DATE TIME

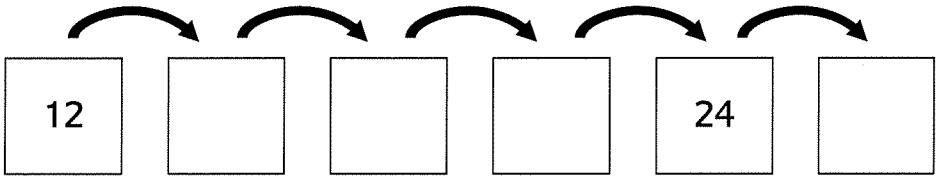
Family Note Today your child reviewed Frames and Arrows, which provide opportunities to look for addition, subtraction, multiplication, or division patterns. Your child used the patterns to fill in missing rules and blank frames.

Please return this Home Link to school tomorrow.

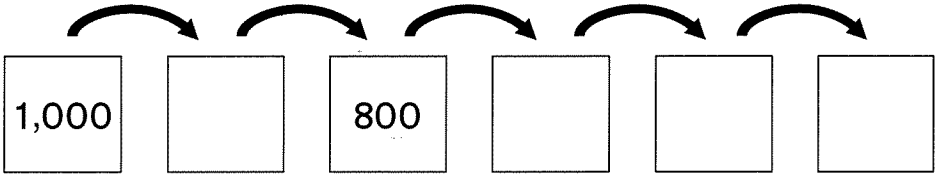
Show someone at home how to complete these Frames-and-Arrows diagrams.

SRB 72-73

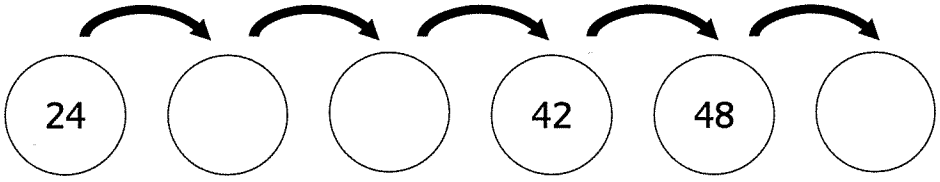
① Rule: +3



② Rule: −100



③ Rule:



Practice

Solve.

④ _____ = 6 × 5

⑤ _____ = 6 × 10

⑥ 5 × _____ = 20

⑦ 10 × _____ = 40

Liquid Volume and Area

Home Link 2-12

NAME DATE TIME

Family Note Today your child explored the ideas of *liquid volume* and *area*. Before your child is exposed to formal work with these measures (such as equivalent units of **liquid volume** or formulas for finding area), it is important to have concrete, exploratory experiences with these measures.

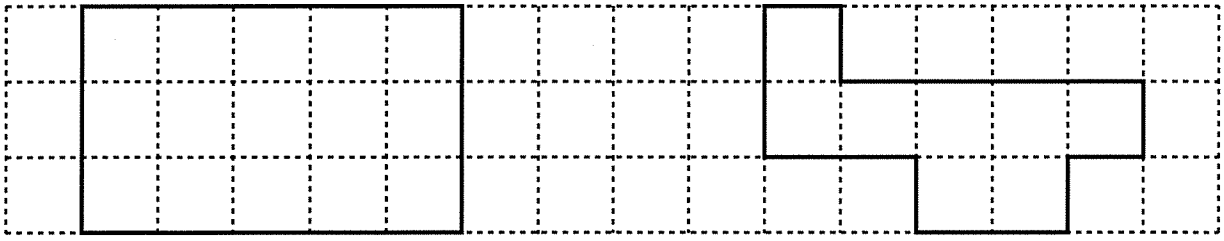
In Problem 1, help your child see that although the glasses may have different dimensions, they can still hold about the same amount of water. In Problem 2, the number of squares that your child counts is the area measurement in square centimeters.

Please return this Home Link to school tomorrow.

SRB 176-177, 182

① Pour some water into a cup at home. Pour all the water from the cup into a bowl. Does the volume or amount of liquid change when you pour it from one container to the other? Explain your thinking.

② Count squares to find the area of each figure.



_____ square centimeters

_____ square centimeters

Practice

③ $6 \times 2 =$ _____

④ $14 = 2 \times$ _____

⑤ _____ $= 18 \div 2$

⑥ $16 \div$ _____ $= 8$