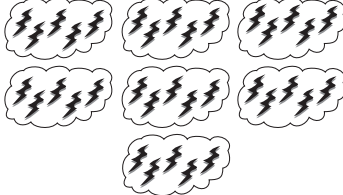## Multiplication Stories

Students were using computers in math class. They wrote stories and drew pictures to show how they solved some problems.

As you read the stories, think about what kind of pictures you would draw or what kind of stories you would write.

Their first problem was: How much is 7×5?

Here is the picture Jerome and Darius drew on a computer.

1. How many clouds did they draw? How many strikes of lightning did they draw?

Here is the story Jerome and Darius wrote about 7×5:

We made 7 clouds. We put 5 strikes of lightning on each one. We found that 7 times 5 equals 35 lightning strikes. We counted by fives 7 times.

Jerome and Darius found that $7 \times 5 = 35$. The answer to a multiplication problem is called the **product.** The product of 5 and 7 is 35.

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Nisha and Suzanne made this picture to help them find the answer to 7×3.

This is the story Nisha and Suzanne wrote:

We made 7 ovals, and we put 3 cats in each oval. We found out that it was 21 when we counted all of the cats by ones. 7 × 3 = 21.

Roberto made this picture and wrote this story:

7 + 7 + 7 = 21. I put 7 birds in 3 big ovals. 3 × 7 = 21. The end.

Suzanne looked at both pictures. She saw that $7 \times 3 = 21$ and $3 \times 7 = 21$. She said, "I know how they came out the same. I found seven threes." Then she drew seven boxes on Roberto's picture like this:

2. How did Suzanne change Roberto's picture? What does Suzanne's work show?

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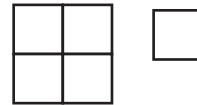***Answers and/or discussion are included in the lesson.**

Multiplication Stories (SG pp. 58–61)
Questions 1–7

1.* 7 clouds, 35 lightning strikes

2. Suzanne circled seven groups of three instead of three groups of seven. It shows that both 7×3 and 3×7 equal 21.

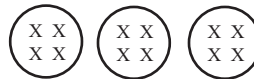3. Sam doubled 7 and drew three groups of fourteen people. Then he added $14 + 14 + 14 = 42$.

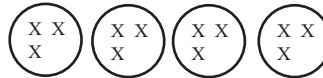4. 20 cubes

5. 80 cubes

6. $1\frac{1}{4}$, Possible picture:

7. Stories will vary. Possible stories are shown.

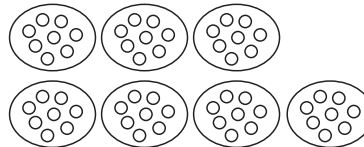   A. There are three teams with four players on each. How many players are there in all?

   3 teams $\times$ 4 players = 12 players

   There are 4 teams with 3 players on each. How many players are there in all?

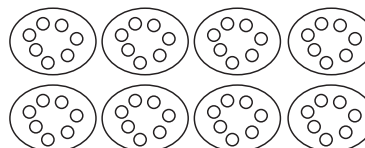   4 teams $\times$ 3 players = 12 players

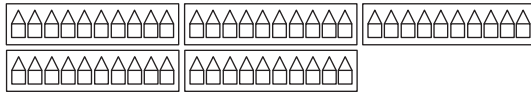   B. Daisy picked seven bunches of flowers. Each bunch had eight flowers. How many flowers were there in all?

   7 bunches $\times$ 8 flowers = 56 flowers

   Daisy picked seven flowers for each of her eight friends. How many flowers did Daisy pick in all?

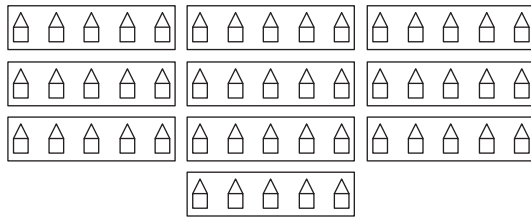   7 flowers $\times$ 8 friends = 56 flowers

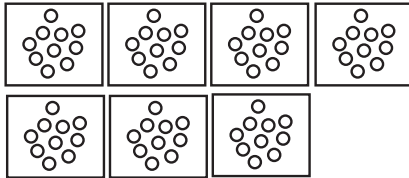**C.** There are 10 houses on each of the five blocks in my neighborhood. How many houses are there in all?

10 houses $\times$ 5 blocks = 50 houses

There are 5 houses on each of the 10 blocks in my neighborhood. How many houses are in the neighborhood?

10 blocks $\times$ 5 houses = 50 houses

D. Jesse bought seven trays of fruit. Each tray had ten pieces of fruit. How many pieces of fruit were there altogether?
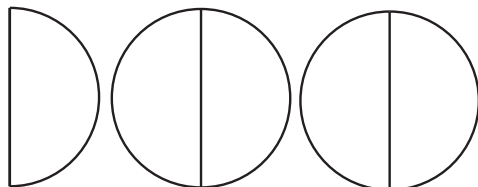

7 trays $\times$ 10 pieces = 70 pieces of fruit

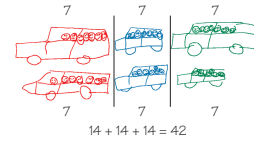**E.** Kristie ate four halves of a banana. How many whole bananas did Kristie eat?

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

F. Fred can eat five servings of rice. Each serving is one half of a plate. How many plates of rice can Fred eat?
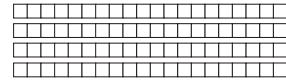

$5 \times \frac{1}{2} = 2\frac{1}{2}$ plates of rice

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3. Sam drew his picture. He solved the problem: How much is 6×7? Look at Sam's picture and work. How did he solve the problem?
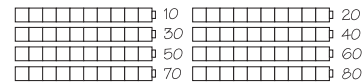

7   7   7

7   7   7

14 + 14 + 14 = 42

Sam wrote this story:

There are six cars in the park and there are seven people in each car. 6 × 7 = 42.

4. Jacob and Ana worked on this problem: How much is 4×20? They used connecting cubes to solve the problem. They made four trains of cubes. How long is each train?

They divided each train into two trains of ten cubes so that they could count by tens.
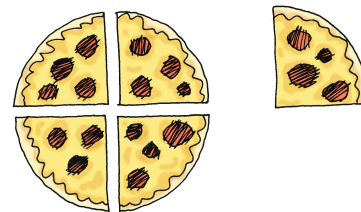

10   20
30   40
50   60
70   80

5. Look at the picture. How much is 4×20?

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Discuss

Mara drew the following picture to answer the problem: How much is $5 \times \frac{1}{4}$?

Mara wrote: *Five friends ate pizza at a sleep-over. Each girl ate $\frac{1}{4}$ pizza. They ate $1\frac{1}{4}$ pizzas.*

6. Draw a different picture to answer the problem: How much is $5 \times \frac{1}{4}$?

7. Draw pictures and write your own stories to solve each problem. Write number sentences for each story.

    A. 3×4 **B.** 7×8 **C.** 10×5

    D. 7×10 **E.** $4 \times \frac{1}{2}$ **F.** $5 \times \frac{1}{2}$

Homework

Write a story and draw a picture to show how to solve each problem. Share your stories with a family member.

    1. A. 7×4 **B.** 6×10 **C.** 9×6

    2. A. $2 \times \frac{1}{2}$ **B.** 4×5 **C.** 2×30
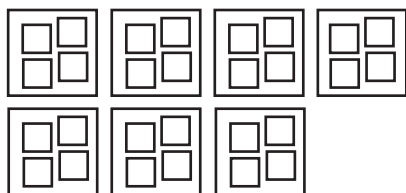
Student Guide - **Page 61**
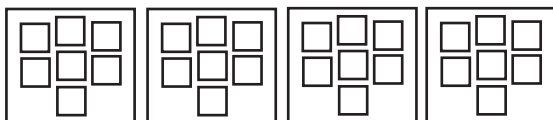
Homework (SG p. 61)
Questions 1–2

Answers will vary. Possible stories are shown.

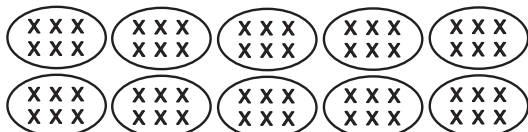1. **A.** Melanie has four stickers on each of her seven notebooks. How many stickers does Melanie have in all?

7 notebooks $\times$ 4 stickers = 28 stickers

Melanie put 7 stickers on each of her 4 notebooks. How many stickers are on her notebooks?

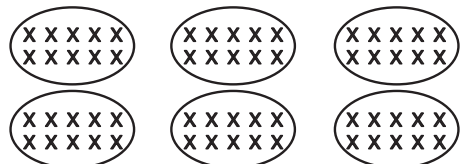7 stickers $\times$ 4 notebooks = 28 stickers

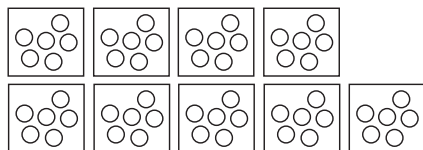**B.** There are six players on my soccer team. There are ten teams in all. How many total players are there?

6 players $\times$ 10 teams = 60 players

Students may also show:

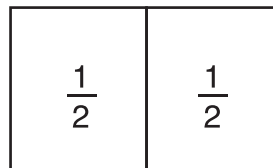6 teams $\times$ 10 players = 60 players

C. Nine cars drove to the basketball game. There were six people in each car. How many people went to the basketball game?
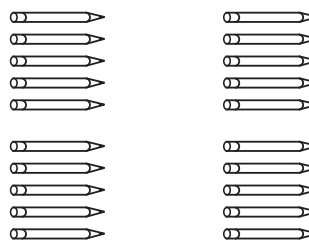
9 cars $\times$ 6 people = 54 people

2. **A.** John ate two halves of a muffin.
$2 \times \frac{1}{2} = 1$ muffin.
He ate one whole muffin.

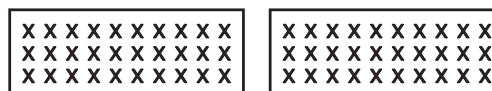| $\frac{1}{2}$	$\frac{1}{2}$

B. Rico bought five pencils for each of his 4 friends. He bought 20 pencils.

4 friends $\times$ 5 pencils = 20 pencils

C. There are 2 third-grade classes. Each one has 30 students. How many students are in third-grade?

2 classes $\times$ 30 students = 60 students