

Name \_\_\_\_\_

**Problem Solving • Multistep Division Problems**

**Essential Question** How can you use the strategy *draw a diagram* to solve multistep division problems?



**Operations and Algebraic Thinking—**  
**4.OA.A.2** Also 4.OA.A.3, 4.NBT.B.6

**MATHEMATICAL PRACTICES**  
**MP1, MP2, MP4**

**Unlock the Problem**

Lucia picked 3 times as much corn as Eli. Together, they picked 96 ears of corn. Eli wants to divide the number of ears he picked equally among 8 bags. How many ears of corn will Eli put in each of the 8 bags?



**Read the Problem**

**What do I need to find?**

I need to find the number of \_\_\_\_\_ that will go in each bag.

**What information do I need to use?**

Lucia picked \_\_\_\_\_ times as much corn as Eli.  
Together they picked \_\_\_\_\_ ears of corn. The number of ears Eli picked are divided equally among \_\_\_\_\_ bags.

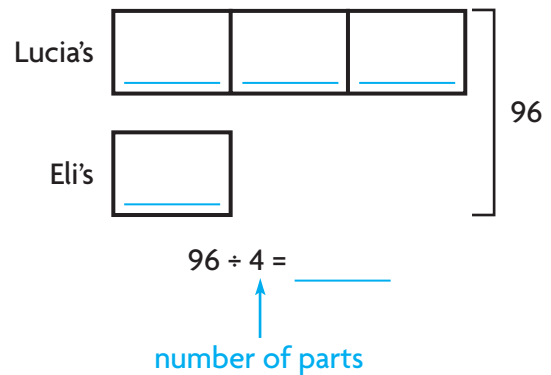
**How will I use the information?**

I will make a bar model for each step to visualize the information. Then I will \_\_\_\_\_ to find the number of ears Eli picked and \_\_\_\_\_ to find the number for each bag.

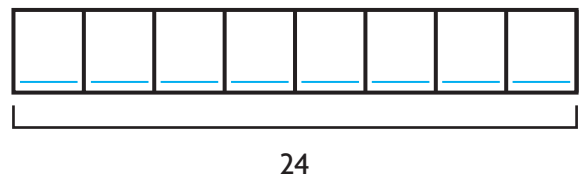
**Solve the Problem**

I can draw bar models to visualize the information given.

First, I will model and compare to find the number of ears of corn that Eli picked.



Then I will model and divide to find how many ears of corn Eli will put in each bag.



1. How many ears of corn will Eli put in each bag? \_\_\_\_\_
2. How can you check your answers? \_\_\_\_\_

## Try Another Problem

There are 8 dinner rolls in a package. How many packages will be needed to feed 64 people if each person has 2 dinner rolls?



### Read the Problem

What do I need to find?

What information do I need to use?

How will I use the information?

### Solve the Problem

3. How many packages of rolls will be needed? \_\_\_\_\_

4. How did drawing a bar model help you solve the problem?

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**Math  
Talk**

**MATHEMATICAL PRACTICES 1**

**Analyze** What other method could you have used to solve the problem?

Name \_\_\_\_\_

## Share and Show



1. A firehouse pantry has 52 cans of vegetables and 74 cans of soup. Each shelf holds 9 cans. What is the least number of shelves needed for all the cans?

**First**, draw a bar model for the total number of cans.

**Next**, add to find the total number of cans.

**Then**, draw a bar model to show the number of shelves needed.

**Finally**, divide to find the number of shelves needed.

So, \_\_\_\_\_ shelves are needed to hold all of the cans.

2. **THINK SMARTER** What if 18 cans fit on a shelf? What is the least number of shelves needed? Describe how your answer would be different.

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3. Julio's dad bought 10 dozen potatoes. The potatoes were equally divided into 6 bags. How many potatoes are in each bag?

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4. At the garden shop, each small tree costs \$125 and each large tree costs \$225. How much will 3 small trees and 1 large tree cost?

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## Unlock the Problem

- ✓ Use the Problem Solving MathBoard.
- ✓ Underline important facts.
- ✓ Choose a strategy you know.

**Math Talk**

**MATHEMATICAL PRACTICES 1**

**Evaluate** How could you check to see that your answer is correct?

**WRITE** *Math*  
**Show Your Work**

## On Your Own

5. **THINK SMARTER** Ms. Johnson bought 6 bags of balloons. Each bag has 25 balloons. She fills all the balloons and puts 5 balloons in each bunch. How many bunches can she make?



6. **THINK SMARTER** An adult's dinner costs \$8. A family of 2 adults and 2 children pays \$26 for their dinners. How much does a child's dinner cost? Explain.

7. **MATHEMATICAL PRACTICE 5 Communicate** Use the table at the right. Maria bought 80 ounces of apples. She needs 10 apples to make a pie. How many apples will be left over? Explain.



Fruit	Average weight
Peach	6 ounces
Apple	5 ounces
Plum	2 ounces

8. **GO DEEPER** Taylor has 16 tacks. She buys 2 packages of 36 tacks each. How many garage sale posters can she put up if she uses 4 tacks for each poster?

### Personal Math Trainer

9. **THINK SMARTER +** Ryan bought 8 dozen bandages for the track team first-aid kit. The bandages were divided equally into 4 boxes. How many bandages are in each box?



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**Problem Solving • Multistep  
Division Problems**



**COMMON CORE STANDARD—4.OA.A.3**  
Use the four operations with whole numbers to solve problems.

**Solve. Draw a diagram to help you.**

1. There are 3 trays of eggs. Each tray holds 30 eggs. How many people can be served if each person eats 2 eggs?



Multiply to find the total number of eggs.

90

45

**Think:** What do I need to find? How can I draw a diagram to help?



Divide to find how many people can be served 2 eggs.

45 people can be served.

90

2. There are 8 pencils in a package. How many packages will be needed for 28 children if each child gets 4 pencils?

\_\_\_\_\_

3. There are 3 boxes of tangerines. Each box has 93 tangerines. The tangerines will be divided equally among 9 classrooms. How many tangerines will each classroom get?

\_\_\_\_\_

4. **WRITE** *Math* Write a two-step problem that you can solve using the strategy *draw a diagram*. Explain how you can use the strategy to find the solution.

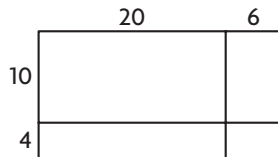
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## Lesson Check (4.OA.A.3, 4.NBT.B.6)

1. Gavin buys 89 blue pansies and 86 yellow pansies. He will plant the flowers in 5 rows with an equal number of plants in each row. Draw a bar model to help you find how many plants will be in each row.
2. A pet store receives 7 boxes of cat food. Each box has 48 cans. The store wants to put the cans in equal stacks of 8 cans. Draw a bar model to help you find how many stacks can be formed.

## Spiral Review (4.OA.A.3, 4.NBT.B.5, 4.NBT.B.6)

3. What product does the model show?



4. Mr. Hatch bought 4 round-trip airplane tickets for \$417 each. He also paid \$50 in baggage fees. How much did Mr. Hatch spend?

5. Mae read 976 pages in 8 weeks. She read the same number of pages each week. How many pages did she read each week?

6. Yolanda and her 3 brothers shared a box of 156 toy dinosaurs. About how many dinosaurs did each child get?