Name _____

Problem Solving • Multistep Division Problems

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

Unlock the Problem Real World

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	Solve the Problem
What do I need to find? I need to find the number of _____ that will go in each bag.	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.

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.

Lucia's — — — ┐
                  │ 96
Eli's — ┘

96 ÷ 4 = _____

number of parts

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.

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

24
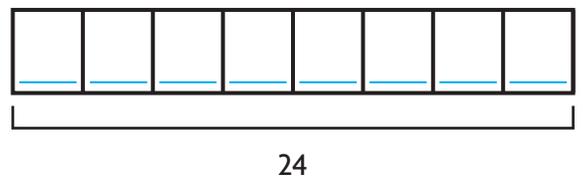
1. How many ears of corn will Eli put in each bag? _____

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	Solve the Problem
What do I need to find?	
What information do I need to use?	
How will I use the information?	

3. How many packages of rolls will be needed? _____

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

_____

_____

_____

Math Talk

Name _____

Share and Show | MATH BOARD

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

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.

Math Talk | MATHEMATICAL PRACTICES ①
Evaluate How could you check to see that your answer is correct?

WRITE ▶ *Math*
Show Your Work

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.

_____

_____

_____

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

_____

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?

_____

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?

_____

Problem Solving • Multistep Division 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?

30	30	30

   90
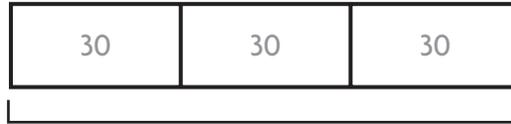
   Multiply to find the total number of eggs.

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

   45

2	- - - - - - - -	2

   90
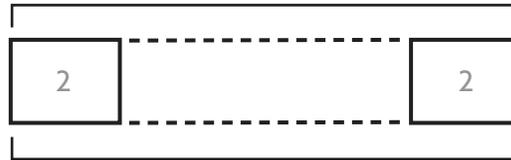
   Divide to find how many people can be served 2 eggs.

   __45 people can be served.__

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.

   _____

   _____

Lesson Check

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

3. What product does the model show?

20	6
10	
4	

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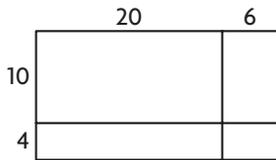
4. Mr. Hatch bought 4 round-trip airplane tickets for $417 each. He also paid $50 in baggage fees. How much did Mr. Hatch spend?

_____

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?

_____

_____

FOR MORE PRACTICE GO TO THE Personal Math Trainer