Name _____

Multi-Step Multiplication Problems

I Can solve real-world problems involving multiplication of whole numbers.

Florida's B.E.S.T.

- **Algebraic Reasoning** 4.AR.1.1
- **Number Sense & Operations** 4.NSO.2.3, 4.NSO.2.1
- **Mathematical Thinking & Reasoning** MTR.2.1, MTR.3.1, MTR.4.1, MTR.6.1

UNLOCK the Problem Real World

At the sea park, one section in the stadium has 9 rows with 18 seats in each row. In the center of each of the first 6 rows, 8 seats are in the splash zone. How many seats are not in the splash zone?

Use the graphic organizer to help you solve the problem.

Read the Problem

What do I need to find?

I need to find the number of seats that _____ in the splash zone.

What information do I need to use?

There are 9 rows with _____ seats in each row of the section.

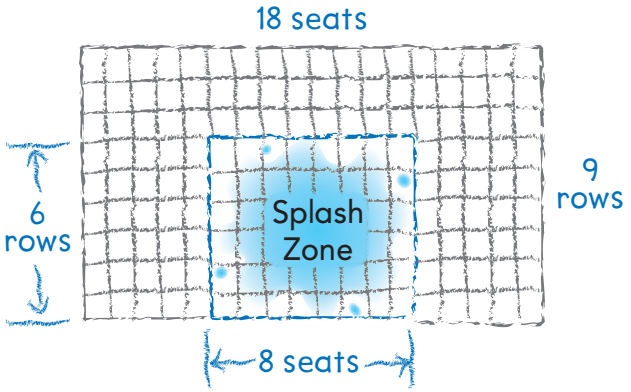
There are 6 rows with _____ seats in each row of the splash zone.

How will I use the information?

I can _____ to find both the number of seats in the section and the number of seats in the splash zone.

Solve the Problem

I drew a diagram of the section to show 9 rows of 18 seats. In the center, I outlined a section to show the 6 rows of 8 seats in the splash zone.



$$\begin{array}{r} 18 \\ \times\ 9 \\ \hline \square \end{array}$$ ← total number of seats in the section

$$\begin{array}{r} 8 \\ \times 6 \\ \hline \square \end{array}$$ ← seats in the splash zone

1. What else do you need to do to solve the problem?

_____

_____

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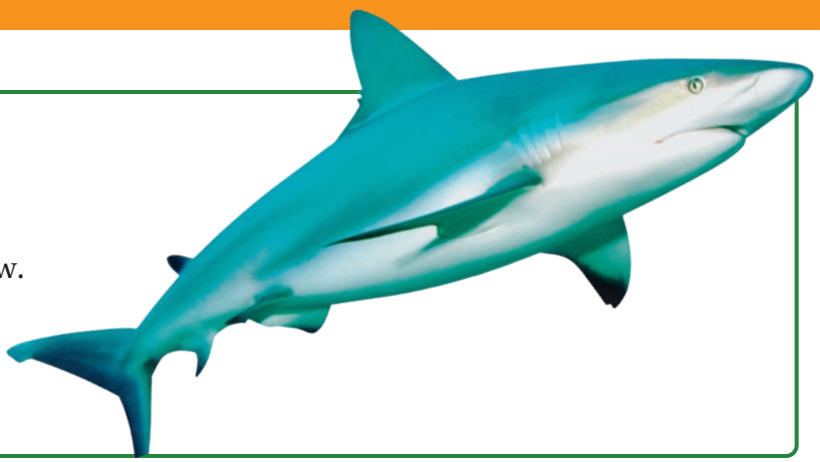
Try Another Problem

At the sea park, one section of the shark theater has 8 rows with 14 seats in each row. In the middle of the section, 4 rows of 6 seats are reserved. How many seats are not reserved?



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?	

Math Talk

MTR 6.1 Assess the reasonableness of solutions.

How do you know your answer is correct?

2. How did your diagram help you solve the problem?

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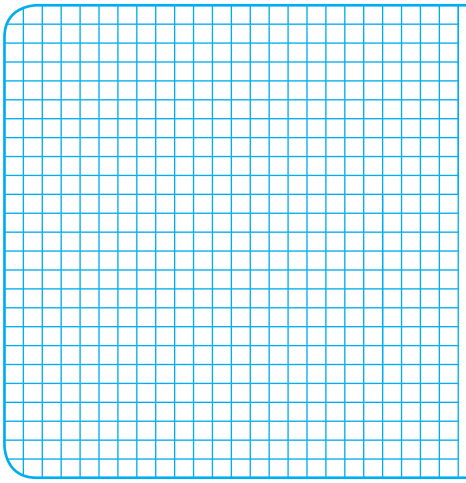
Name _____

Share and Show

Math Board

1. The seats in Sections A and B of the stadium are all taken for the last show. Section A has 8 rows of 14 seats each. Section B has 6 rows of 16 seats each. How many people are seated in Sections A and B for the last show?

First, draw and label a diagram. **Next**, find the number of seats in each section.



Section A **Section B**

Last, find the total number of seats. _____ + _____ = _____

There are _____ people seated in Sections A and B for the last show.

2. What if Sections A and B each had 7 rows? How many people would have been seated in Sections A and B?

_____

3. Mei's vegetable garden has 13 rows with 8 plants in each row. Mei plans to plant peppers in the first 2 rows and the last 2 rows of the garden. The rest of the rows will be tomatoes. How many tomato plants will Mei plant?

_____

4. There are 8 rows of 22 chairs set up for an awards ceremony at the school. In each row, the 2 chairs on each end are reserved for students receiving awards. The rest of the chairs are for guests. How many chairs are there for guests?

_____

Unlock the Problem

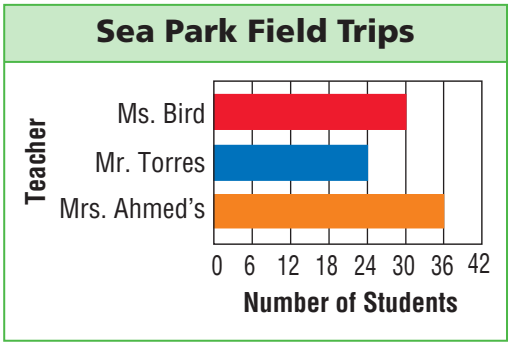
- √ Use the Problem Solving MathBoard
- √ Underline important facts.
- √ Choose a strategy you know.

Show the Math

Demonstrate Your Thinking

On Your Own

Use the graph for problems 5–6.



5. Mr. Torres took his students to the dolphin show. Each row in the stadium had 11 seats. One adult sat at each end of a row, and each group of 4 students was seated between 2 adults. Mr. Torres sat by himself. How many adults were there?

6. WRITE Math Another stadium section has 24 rows of 10 seats each. Describe at least two ways Mrs. Ahmed's class can sit if an equal number of students sits in each row.

7. Afreen, Tori, and Liz each bought a toy fish. Afreen's fish is 10 inches longer than Tori's fish. Liz's fish is 2 inches longer than twice the length of Tori's fish. Tori's fish is 12 inches long. Find the length of each toy fish.

8. MTR Nell made a secret code. Each code word has 2 letters. Each word begins with a consonant and ends with a vowel. How many code words can Nell make with 3 consonants and 2 vowels?

9. Allie is building a patio. The patio will have 8 tiles in each of 13 rows. She has already built the center section with 4 tiles in each of 7 rows. How many more tiles are needed to complete the patio? Show your work.

Show the Math

Demonstrate Your Thinking

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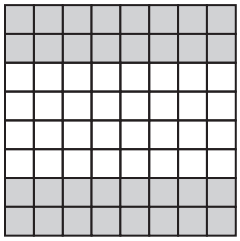
Name

Multi-Step Multiplication Problems

Go Online
Interactive Examples

Solve each problem.

1. A community park has 6 tables with a chessboard painted on top. Each board has 8 rows of 8 squares. When a game is set up, 4 rows of 8 squares on each board are covered with chess pieces. If a game is set up on each table, how many total squares are NOT covered by chess pieces?



$4 \times 8 = 32$
$6 \times 32 = \square$

192 squares

2. Jonah and his friends go apple picking. Jonah fills 5 baskets. Each basket holds 15 apples. If 4 of Jonah's friends pick the same amount as Jonah, how many apples do Jonah and his friends pick in all? Draw a diagram to solve the problem.

3. WRITE Math Write a word problem that can be solved using multiplication of two-digit numbers. Solve your word problem and explain the solution.

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Lesson Check

4. At a tree farm, there are 9 rows of 36 spruce trees. In each row, 14 of the spruce trees are blue spruce. How many spruce trees are NOT blue spruce?

5. Kai is tiling a countertop. He needs to place 54 square tiles in each of 8 rows to cover the counter. He wants to randomly place 8 groups of 4 blue tiles each and have the rest of the tiles be white. How many white tiles will Kai need?

Spiral Review

6. Juan reads a book with 368 pages. Savannah reads a book with 172 fewer pages than Juan's book. How many pages are in the book Savannah reads?

7. Hailey has bottles that hold 678 pennies each. About how many pennies does she have if she has 6 bottles filled with pennies?

8. Terrence plants a garden that has 8 rows of flowers, with 28 flowers in each row. How many flowers did Terrence plant?

9. Ivan has 5 fish in his fish tank. Jasmine has 4 times as many fish as Ivan has. How many fish does Jasmine have?

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