LESSON MAKER PRO

Array Division Detectives

Use rows and columns to make sense of division.

GRADE 4 · 4.NOS.B.6.d

4.NOS.B.6.d "Represent and explain the computation by connecting rectangular arrays, area models, and/or equations to the meaning of division."

NAME _____ DATE _____

ROWS, COLUMNS, AND DIVISION

An array has equal rows and equal columns. Divide the total by the number of rows to find how many are in each row. Use multiplication to check.

WORKED EXAMPLE

Look at the array. How many dots are in each row? Show how division matches the array.



1. Count 3 rows of 8 dots.
2. Find the total: 3 x 8 = 24.
3. Divide by the rows: 24 / 3 = 8.

Answer: 8 dots in each row

PRACTICE 4 problems

1 An array has 44 dots in 4 equal rows. How many dots are in each row? Write a division equation.

ANSWER _____

2 An array has 60 dots in 5 equal columns. How many dots are in each column? Write a division equation.

ANSWER _____

3 A rectangle has 54 tiles in 6 equal rows. How many tiles are in each row?

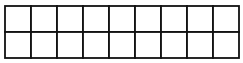
ANSWER _____

4 A 42-dot array has 7 columns. Write a multiplication equation and a division equation to find the dots in each column.

ANSWER _____

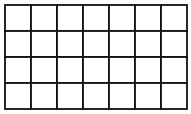
APPLY IT Show your work

1 A game club sets out cards in this array. Each player gets one row. How many players get cards? How many cards does each get?



ANSWER _____

2 A sticker shop sets out stickers in this array. Each pack gets one column. How many packs can the shop make? How many stickers go in each pack?



ANSWER _____

CHALLENGE One step up

A rectangle has 72 tiles in 6 equal rows. A student says each row has 11 tiles because 6 x 11 = 72. Explain the error and find the correct number.

WORK SPACE AND ANSWER

ANSWER KEY

Array Division Detectives

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	An array has 44 dots in 4 equal rows. How many dots are in each row? Write a division equation.	**11 dots; 44 / 4 = 11**
2	An array has 60 dots in 5 equal columns. How many dots are in each column? Write a division equation.	**12 dots; 60 / 5 = 12**
3	A rectangle has 54 tiles in 6 equal rows. How many tiles are in each row?	**9 tiles**
4	A 42-dot array has 7 columns. Write a multiplication equation and a division equation to find the dots in each column.	**7 x 6 = 42; 42 / 7 = 6, so each column has 6 dots.**

PART 2 · APPLY IT

1. **2 players; 9 cards each** The array has 18 cards in 2 rows. Divide 18 / 2 = 9 cards per player.
2. **7 packs; 4 stickers in each pack** The array has 28 stickers in 7 columns. Divide 28 / 7 = 4 stickers per pack.

CHALLENGE

6 x 11 = 66, not 72. Since 6 x 12 = 72, each row has 12 tiles.

Accept equations with the factors in either order when they correctly connect the array to the total. For the challenge, the explanation must correct the multiplication error.