LESSON MAKER PRO

Division Model Mission

Use arrays, area models, and equations to divide.

GRADE 5 · 5.NBT.B.6

CCSS.Math.Content.5.NBT.B.6 "Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division..."

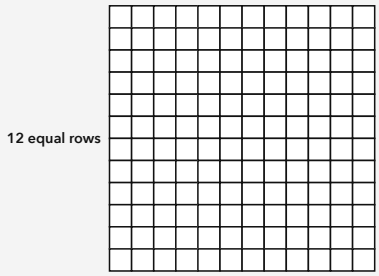
NAME _____ DATE _____

BREAK IT INTO PARTS

Use place value to split a large dividend into parts that are easy multiples of the divisor. Divide each part, add the partial quotients, and check by multiplying the quotient by the divisor.

WORKED EXAMPLE

The array has 12 equal rows. How many tiles are in each row? Write a division equation.



1. Count 12 tiles in one row.
2. Find the total: 12 × 12 = 144.
3. Divide: 144 / 12 = 12.

Answer: 144 / 12 = 12

PRACTICE 4 problems

1 Find the quotient: 936 / 18

ANSWER _____

2 Find the quotient: 1,764 / 28

ANSWER _____

3 Find the quotient: 2,592 / 36

ANSWER _____

4 Find the quotient: 3,120 / 48

ANSWER _____

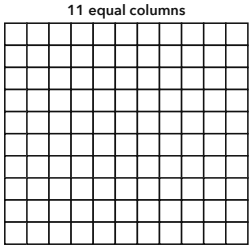
APPLY IT Show your work

1 A designer makes a game board with 624 squares. The area model shows its rows and columns. How many squares are in each row?

	20	6
20	400	120
4	80	24

ANSWER _____

2 A club puts 110 digital badges into 11 equal columns on a display. The array shows the display. How many badges are in each column?



ANSWER _____

CHALLENGE One step up

Use partial quotients to solve 3,360 / 24. Write two multiplication equations that show your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the quotient: 936 / 18	**52**
2	Find the quotient: 1,764 / 28	**63**
3	Find the quotient: 2,592 / 36	**72**
4	Find the quotient: 3,120 / 48	**65**

PART 2 · APPLY IT

1. **26 squares** The model shows 24 rows. Divide 624 / 24 = 26.
2. **10 badges** Divide 110 / 11 = 10.

CHALLENGE

24 × 100 = 2,400; 24 × 40 = 960; 2,400 + 960 = 3,360, so 3,360 / 24 = 140.

Accept correct quotients found with partial quotients, standard division, multiplication checks, arrays, or area models. For the challenge, accept any correct equations that show partial quotients totaling 140.