LESSON MAKER PRO

Multiply Model Match

Use place value, arrays, and area models to find products.

GRADE 4 · 4.NBT.B.5

CCSS.Math.Content.4.NBT.B.5 "Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations..."

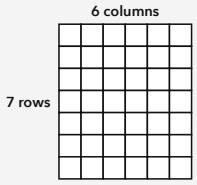
NAME _____ DATE _____

PART 1: PRACTICE

Break apart a factor by place value, then multiply each part. Add the partial products to find the total. Arrays and area models help you see the equal groups.

WORKED EXAMPLE

Use the array to find its product.



1. The array has 7 groups of 6 squares.
2. 6 + 6 + 6 + 6 + 6 + 6 + 6 = 42.
3. 7 × 6 = 42.

Answer: 42

PRACTICE 6 problems

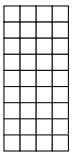
1 Find 328 × 3. Show partial products or use another place-value strategy.

ANSWER _____

2 Find 53 × 3.

ANSWER _____

3 Write the multiplication equation and product shown by the array.



ANSWER _____

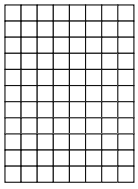
4 Use partial products to find 28 × 15.

ANSWER _____

5 Find 1,203 × 4. Show your work.

ANSWER _____

6 Find the product shown by the array.



ANSWER _____

APPLY IT Show your work

1 Part 2: Apply. Maya puts one trading card in each space of a rectangular display. The area model shows the display's rows and columns. How many cards fit in the display?

	10	5
30	300	150
2	20	10

ANSWER _____

2 A game club buys 24 packs of 18 game tokens. How many game tokens does the club buy?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Part 3: Challenge. A theater has 38 rows with 24 seats in each row. Use partial products to find the total number of seats. Explain why adding your partial products gives the total.

WORK SPACE AND ANSWER

ANSWER KEY

Multiply Model Match

GRADE 4 · 4.NBT.B.5

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 328 × 3. Show partial products or use another place-value strategy.	**984**
2	Find 53 × 3.	**159**
3	Write the multiplication equation and product shown by the array.	**9 × 4 = 36**
4	Use partial products to find 28 × 15.	**420**
5	Find 1,203 × 4. Show your work.	**4,812**
6	Find the product shown by the array.	**88**

PART 2 · APPLY IT

1. **480 cards** The model partitions 32 × 15 into 30 × 10, 30 × 5, 2 × 10, and 2 × 5. Add 300 + 150 + 20 + 10 = 480.
2. **432 game tokens** Break apart 18 into 10 and 8. Then 24 × 10 = 240 and 24 × 8 = 192, so 240 + 192 = 432.

CHALLENGE

912 seats. 30 × 20 = 600, 30 × 4 = 120, 8 × 20 = 160, and 8 × 4 = 32. Adding 600 + 120 + 160 + 32 = 912 because the partial products cover every part of 38 rows and 24 seats per row.

Accept correct place-value strategies, repeated addition, arrays, area models, or partial-products equations. For the challenge, accept equivalent partial products and an explanation that all parts of both factors were multiplied and added.