LESSON MAKER PRO

Multiply in Parts

Use an area model to multiply two-digit numbers.

GRADE 5 · 5.NOS.D.12.b

5.NOS.D.12.b "Apply and extend whole number multiplication strategies (e.g. area models)."

NAME _____ DATE _____

THE BIG IDEA

Break each factor into tens and ones. Multiply each pair of parts, then add the partial products.

WORKED EXAMPLE

Find 34 × 26.

	20	6
30	600	180
4	80	24

1. 30 × 20 = 600 and 30 × 6 = 180
2. 4 × 20 = 80 and 4 × 6 = 24
3. 600 + 180 + 80 + 24 = 884

Answer: 884

PRACTICE 4 problems

1 Use partial products to find 43 × 27.

ANSWER _____

2 Use partial products to find 56 × 32.

ANSWER _____

3 Use partial products to find 68 × 14.

ANSWER _____

4 Use partial products to find 72 × 45.

ANSWER _____

APPLY IT Show your work

1 A club puts 47 stickers in each bag. It fills 25 bags. Use the model to find the total number of stickers.



ANSWER _____

2 Mira earns 36 coins for each game level she finishes. She finishes 48 levels. How many coins does she earn?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A shop ships 36 boxes of cards, then 15 more boxes. Each box holds 24 cards. How many cards does it ship? Show two ways to multiply.

WORK SPACE AND ANSWER

ANSWER KEY

Multiply in Parts

GRADE 5 · 5.NOS.D.12.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use partial products to find 43 × 27.	**1,161**
2	Use partial products to find 56 × 32.	**1,792**
3	Use partial products to find 68 × 14.	**952**
4	Use partial products to find 72 × 45.	**3,240**

PART 2 · APPLY IT

1. **1,175 stickers** Add the partial products: 800 + 200 + 140 + 35 = 1,175.
2. **1,728 coins** Split 36 and 48 into tens and ones. Add 1,200 + 240 + 240 + 48 = 1,728.

CHALLENGE

1,224 cards. One way: 24 × (36 + 15) = 24 × 51 = 1,224. Another way: (24 × 36) + (24 × 15) = 864 + 360 = 1,224.

Accept correct partial products in any order. For the challenge, accept any two distinct, correct multiplication methods.