LESSON MAKER PRO

Multiply to Win

Use partial products to multiply larger whole numbers.

GRADE 5 · 5.NR.2.1

5.NR.2.1 "Fluently multiply multi-digit (up to 3- digit by 2-digit) whole numbers to solve authentic problems."

NAME _____ DATE _____

BREAK APART FACTORS

Break a two-digit factor into tens and ones. Multiply by each part, then add the partial products to find the total.

WORKED EXAMPLE

Find 126 × 14.

1. Break 14 into 10 + 4.
2. 126 × 10 = 1,260.
3. 126 × 4 = 504.
4. 1,260 + 504 = 1,764.

Answer: 1,764

PRACTICE 6 problems

1 Find 48 × 7.

ANSWER _____

2 Find 63 × 12.

ANSWER _____

3 Find 205 × 16.

ANSWER _____

4 Find 147 × 23.

ANSWER _____

5 Find 89 × 34.

ANSWER _____

6 Find 312 × 21.

ANSWER _____

APPLY IT Show your work

1 The school gaming club sells 135 tickets for each of 24 tournament sessions. How many tickets does the club sell altogether?

WORK SPACE

ANSWER _____

2 A comic shop puts 128 card sleeves in each of 36 prize packs. How many card sleeves are in all the prize packs?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A game store puts 243 collectible cards into each of 32 prize boxes. How many cards are in the boxes altogether? Show how you used partial products or another strategy to check your answer.

WORK SPACE AND ANSWER

ANSWER KEY

Multiply to Win

GRADE 5 · 5.NR.2.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 48 × 7.	**336**
2	Find 63 × 12.	**756**
3	Find 205 × 16.	**3,280**
4	Find 147 × 23.	**3,381**
5	Find 89 × 34.	**3,026**
6	Find 312 × 21.	**6,552**

PART 2 · APPLY IT

1. **3,240 tickets** Multiply 135 by 24. The club sells 3,240 tickets altogether.
2. **4,608 card sleeves** Multiply 128 by 36. There are 4,608 card sleeves in all.

CHALLENGE

7,776 cards; for example, 243 × 30 = 7,290 and 243 × 2 = 486, so 7,290 + 486 = 7,776.

Accept correct products with any valid multiplication strategy. For the challenge, accept a clear check using partial products, the standard algorithm, or a reasonable estimate with an exact calculation.