LESSON MAKER PRO

Break It Apart

Use smart splits to multiply.

GRADE 3 · MA.3.AR.1.1

MA.3.AR.1.1 "Apply the distributive property to multiply a one-digit number and two-digit number. Apply properties of multiplication to find a product of one-digit whole numbers."

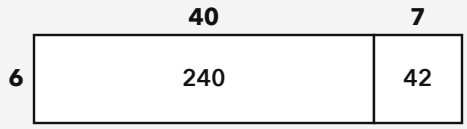
NAME _____ DATE _____

SPLIT, MULTIPLY, ADD

Break a two-digit number into tens and ones. Multiply the one-digit number by each part, then add the two products.

WORKED EXAMPLE

6 × 47



1. 47 = 40 + 7.
2. 6 × 40 = 240.
3. 6 × 7 = 42.
4. 240 + 42 = 282.

Answer: 282

PRACTICE 6 problems

1 Use the distributive property to solve: 3 × 24

ANSWER _____

2 Use the distributive property to solve: 5 × 18

ANSWER _____

3 Use the distributive property to solve: 8 × 12

ANSWER _____

4 Use the distributive property to solve: 9 × 13

ANSWER _____

5 Use the commutative property to find: 4 × 8

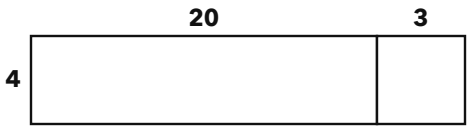
ANSWER _____

6 Use the associative property to find: 2 × 3 × 5

ANSWER _____

APPLY IT Show your work

1 A game club has 4 tables. Each table has 23 trading cards for a swap. How many trading cards are there altogether? Complete the blank partial-product model, then write an equation that adds the two partial products.



ANSWER _____

2 A school garden has 5 rows of sunflower seeds. There are 15 seeds in each row. How many seeds are planted?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Solve 9 × 34. Write an equation that shows how you split 34 into tens and ones.

WORK SPACE AND ANSWER

ANSWER KEY

Break It Apart

GRADE 3 · MA.3.AR.1.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the distributive property to solve: 3 × 24	**72**
2	Use the distributive property to solve: 5 × 18	**90**
3	Use the distributive property to solve: 8 × 12	**96**
4	Use the distributive property to solve: 9 × 13	**117**
5	Use the commutative property to find: 4 × 8	**32**
6	Use the associative property to find: 2 × 3 × 5	**30**

PART 2 · APPLY IT

1. **Partial products 80 and 12; 4 × (20 + 3) = 80 + 12 = 92 cards.** Multiply 4 × 23 by splitting 23 into 20 and 3. Add 80 and 12 to get 92.
2. **75 seeds** Multiply 5 × 15 by splitting 15 into 10 and 5. Add 50 and 25 to get 75.

CHALLENGE

9 × (30 + 4) = 270 + 36 = 306

Accept any correct distributive equation that splits the two-digit factor into tens and ones. For problems 5 and 6, accept a correct reordered or regrouped expression that gives the product.