

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

$$6 \times 47$$

$$1. 47 = 40 + 7.$$

$$2. 6 \times 40 = 240.$$

$$3. 6 \times 7 = 42.$$

$$4. 240 + 42 = 282.$$

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: $2 \times 3 \times 5$

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?

WORK SPACE

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

CHALLENGE

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

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: $2 \times 3 \times 5$	30

PART 2 • APPLY IT

1. **92 trading 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

$$9 \times (30 + 4) = 270 + 36 = 306$$

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.