

# Break It Apart

Use place-value parts to solve big-number problems.

GRADE 4 • 4.NR.2

**4.NR.2** "Using part-whole strategies, solve problems involving addition and subtraction through the hundred-thousands place, as well as multiplication and division of multi-digit whole numbers presented in real-life, mathematical situations."

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## USE PLACE-VALUE PARTS

Break numbers into thousands, hundreds, tens, and ones. Add or subtract matching parts, use partial products to multiply, and use equal place-value chunks to divide.

## WORKED EXAMPLE

$$34,682 + 12,759$$

1. Break apart:  $34,000 + 600 + 80 + 2$  and  $12,000 + 700 + 50 + 9$ .
2. Add each place:  $46,000 + 1,300 + 130 + 11$ .
3. Combine the parts:  $47,441$ .

**Answer: 47,441**

## PRACTICE 6 problems

**1**  $48,307 + 26,845 = \underline{\hspace{2cm}}$

**ANSWER** \_\_\_\_\_

**2**  $90,000 - 37,468 = \underline{\hspace{2cm}}$

**ANSWER** \_\_\_\_\_

**3**  $64,205 - 18,976 = \underline{\hspace{2cm}}$

**ANSWER** \_\_\_\_\_

**4**  $347 \times 6 = \underline{\hspace{2cm}}$

**ANSWER** \_\_\_\_\_

**5**  $24 \times 35 = \underline{\hspace{2cm}}$

**ANSWER** \_\_\_\_\_

**6**  $1,728 \div 8 = \underline{\hspace{2cm}}$

**ANSWER** \_\_\_\_\_

## APPLY IT Show your work

- 1** During a district read-a-thon, students read 46,825 pages in the first week and 18,467 pages in the second week. How many pages did they read altogether?

WORK SPACE

ANSWER \_\_\_\_\_

- 2** A skating rink has 2,736 prize tickets. The manager puts the same number of tickets into 8 prize boxes. How many tickets go in each box?

WORK SPACE

ANSWER \_\_\_\_\_

## CHALLENGE One step up

### CHALLENGE

A music festival printed 28,450 wristbands. Seven schools each receive 2,875 wristbands. How many wristbands are left after the schools receive theirs?

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## PART 1 • PRACTICE

| # | PROBLEM                                      | ANSWER        |
|---|----------------------------------------------|---------------|
| 1 | $48,307 + 26,845 = \underline{\hspace{2cm}}$ | <b>75,152</b> |
| 2 | $90,000 - 37,468 = \underline{\hspace{2cm}}$ | <b>52,532</b> |
| 3 | $64,205 - 18,976 = \underline{\hspace{2cm}}$ | <b>45,229</b> |
| 4 | $347 \times 6 = \underline{\hspace{2cm}}$    | <b>2,082</b>  |
| 5 | $24 \times 35 = \underline{\hspace{2cm}}$    | <b>840</b>    |
| 6 | $1,728 \div 8 = \underline{\hspace{2cm}}$    | <b>216</b>    |

## PART 2 • APPLY IT

1. **65,292 pages** Add the pages from both weeks:  $46,825 + 18,467 = 65,292$ .
2. **342 tickets** Divide the total tickets equally:  $2,736 \div 8 = 342$ .

## CHALLENGE

**8,325 wristbands**

Accept any correct place-value, partial-product, or equal-groups strategy. For word problems and the challenge, accept answers with or without the unit if the number is correct.