

Place Value Power

Build the same number in more than one way.

GRADE 3 • 3.NS.1.c

3.NS.1.c "Compose, decompose, and represent numbers up to 9,999 in multiple ways, according to place value (e.g., 256 can be 1 hundred, 14 tens, 16 ones, but also 25 tens, 6 ones), with and without models."

NAME _____

DATE _____

TRADE PLACE VALUES

You can trade 1 hundred for 10 tens, or trade 1 ten for 10 ones. When you regroup place values, the total number stays the same.

WORKED EXAMPLE

Write 3,482 as thousands, hundreds, tens, and ones. Then write it a different way using more hundreds.

1. $3,482 = 3 \text{ thousands} + 4 \text{ hundreds} + 8 \text{ tens} + 2 \text{ ones}.$
2. Trade 3 thousands for 30 hundreds.
3. $30 \text{ hundreds} + 4 \text{ hundreds} = 34 \text{ hundreds}.$
4. $3,482 = 34 \text{ hundreds} + 8 \text{ tens} + 2 \text{ ones}.$

Answer: 3 thousands, 4 hundreds, 8 tens, 2 ones; 34 hundreds, 8 tens, 2 ones

PRACTICE 6 problems

- 1** Write 5,607 in expanded form.

ANSWER _____

- 2** Write the number shown by 7 thousands, 16 tens, and 9 ones.

ANSWER _____

- 3** Complete: $4,350 = 43 \text{ hundreds} + \underline{\hspace{1cm}} \text{ tens} + \underline{\hspace{1cm}} \text{ ones}.$

ANSWER _____

- 4** Complete: $2,906 = 29 \text{ hundreds} + \underline{\hspace{1cm}} \text{ tens} + \underline{\hspace{1cm}} \text{ ones}.$

ANSWER _____

- 5** Write 6,730 using only tens and ones.

ANSWER _____

- 6** Complete: $9,000 + \underline{\hspace{1cm}} \text{ hundreds} + 14 \text{ tens} + 3 \text{ ones} = 9,543.$

ANSWER _____

APPLY IT Show your work

- 1** A game collection has 2,468 trading cards. Write 2,468 as 24 hundreds, ___ tens, and ___ ones.

WORK SPACE

ANSWER _____

- 2** A school club earned 5,032 points in a reading challenge. Write the points in the usual place-value form. Then write them again using 50 hundreds.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A number has 7 thousands, 18 tens, and 15 ones. Write the number. Then write two different decompositions of the number. Each decomposition must have at least 3 place-value parts.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write 5,607 in expanded form.	5,000 + 600 + 7
2	Write the number shown by 7 thousands, 16 tens, and 9 ones.	7,169
3	Complete: $4,350 = 43 \text{ hundreds} + \underline{\hspace{1cm}} \text{ tens} + \underline{\hspace{1cm}} \text{ ones}$.	5 tens, 0 ones
4	Complete: $2,906 = 29 \text{ hundreds} + \underline{\hspace{1cm}} \text{ tens} + \underline{\hspace{1cm}} \text{ ones}$.	0 tens, 6 ones
5	Write 6,730 using only tens and ones.	673 tens, 0 ones
6	Complete: $9,000 + \underline{\hspace{1cm}} \text{ hundreds} + 14 \text{ tens} + 3 \text{ ones} = 9,543$.	4 hundreds

PART 2 • APPLY IT

- 24 hundreds, 6 tens, 8 ones** 24 hundreds is 2,400. The remaining 68 is 6 tens and 8 ones.
- 5 thousands, 0 hundreds, 3 tens, 2 ones; 50 hundreds, 3 tens, 2 ones** The usual form names each place value. Trading 5 thousands for 50 hundreds keeps the total at 5,032.

CHALLENGE

7,195; 7 thousands, 1 hundred, 9 tens, 5 ones; 71 hundreds, 9 tens, 5 ones

Accept any equivalent decomposition that has the correct total and follows the directions in the item. Terms with 0 hundreds, 0 tens, or 0 ones may be included or omitted unless the blank asks for that place value.