

Place Value Power

Read, build, and break apart big numbers.

GRADE 3 • 3.NS.1

3.NS.1 "The student will use place value understanding to read, write, and determine the place and value of each digit in a whole number, up to six digits, with and without models. Read and write six-digit whole numbers in standard form..."

NAME _____

DATE _____

PLACE VALUE PATTERNS

A digit's value depends on its place. Each place to the left is worth 10 times as much, so you can use place names to write a number in standard, expanded, and word form.

WORKED EXAMPLE

Write 482,306 in expanded form and word form.

1. The 4 is worth 400,000, and the 8 is worth 80,000.
2. The 2 is worth 2,000, the 3 is worth 300, and the 6 is worth 6.
3. Add the values for expanded form, then read the number from left to right.

Answer: Expanded form: $400,000 + 80,000 + 2,000 + 300 + 6$. Word form: four hundred eighty-two thousand, three hundred six.

PRACTICE 6 problems

- 1** 1. Write 306,041 in expanded form.

ANSWER _____

- 2** 2. Write 570,208 in word form.

ANSWER _____

- 3** 3. Write eight hundred four thousand, nineteen in standard form.

ANSWER _____

- 4** 4. In 691,452, what is the value of the digit 9?

ANSWER _____

- 5** 5. In 248,735, which digit has a value of 700?

ANSWER _____

- 6** 6. A number has 5 thousands, 18 tens, and 14 ones. Write the number in standard form and usual expanded form.

ANSWER _____

APPLY IT Show your work

- 1** 1. A science museum counted 406,072 visitors last year. Write the number in expanded form. Then tell the value of the digit 6.

WORK SPACE

ANSWER _____

- 2** 2. In a game design contest, a team earned 7 thousands, 23 tens, and 15 ones points. How many points did the team earn? Write the answer in standard form and usual expanded form.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A number has 3 hundred-thousands, 14 thousands, 23 tens, and 18 ones. Write the number in standard form and usual expanded form. Explain how you regrouped the extra tens and ones.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	1. Write 306,041 in expanded form.	300,000 + 6,000 + 40 + 1
2	2. Write 570,208 in word form.	five hundred seventy thousand, two hundred eight
3	3. Write eight hundred four thousand, nineteen in standard form.	804,019
4	4. In 691,452, what is the value of the digit 9?	90,000
5	5. In 248,735, which digit has a value of 700?	7
6	6. A number has 5 thousands, 18 tens, and 14 ones. Write the number in standard form and usual expanded form.	5,194; 5,000 + 100 + 90 + 4

PART 2 • APPLY IT

- 400,000 + 6,000 + 70 + 2; 6,000** The 6 is in the thousands place. Add the value of each nonzero digit to make the expanded form.
- 7,245; 7,000 + 200 + 40 + 5** Combine 7,000, 230, and 15 to get 7,245. Regroup the tens and ones to write the usual expanded form.

CHALLENGE

314,248; 300,000 + 10,000 + 4,000 + 200 + 40 + 8. The 23 tens and 18 ones make 248, so they regroup as 2 hundreds, 4 tens, and 8 ones.

Accept equivalent expanded forms that show the same total, including forms that combine or split place-value parts correctly. In word form, accept correct spelling with or without hyphens in compound numbers.