LESSON MAKER PRO

Place Value Power

Read, write, and break apart whole 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

Each place to the left is worth 10 times as much as the place to its right. Use the value of each digit to write a number in standard form, word form, or expanded form.

WORKED EXAMPLE

Write 482,631 in expanded form. Then tell the value of the digit 8.

1. The 4 is in the hundred-thousands place, so it is worth 400,000.
2. The 8 is in the ten-thousands place, so it is worth 80,000.
3. Add the value of every digit: 400,000 + 80,000 + 2,000 + 600 + 30 + 1.

Answer: Expanded form: 400,000 + 80,000 + 2,000 + 600 + 30 + 1; value of 8: 80,000

PRACTICE 6 problems

1 Write three hundred six thousand, forty-five in standard form.

ANSWER _____

2 Write 718,209 in word form.

ANSWER _____

3 Write 540,670 in expanded form.

ANSWER _____

4 What is the value of the digit 2 in 862,154?

ANSWER _____

5 In 173,480, what place is the digit 7 in, and what is its value?

ANSWER _____

6 Write 4,306 as 4 thousands, hundreds, tens, and ones. Then write it using 43 hundreds, tens, and ones.

ANSWER _____

APPLY IT Show your work

1 The robotics club's scoreboard says it earned three hundred six thousand, fourteen points during a season. Write the score in standard form and expanded form.

WORK SPACE

ANSWER _____

2 A trading card app shows 7,450 cards in a collection. Write two different place-value decompositions of this number. One decomposition must use thousands, hundreds, tens, and ones. The other must use 74 hundreds.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Use the digits 0, 3, 3, 5, 8, and 9 exactly once. Write the smallest six-digit number in which a 3 has a value of 30,000. Explain how you know it is the smallest.

WORK SPACE AND ANSWER

ANSWER KEY

Place Value Power

GRADE 3 · 3.NS.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write three hundred six thousand, forty-five in standard form.	**306,045**
2	Write 718,209 in word form.	**seven hundred eighteen thousand, two hundred nine**
3	Write 540,670 in expanded form.	**500,000 + 40,000 + 600 + 70**
4	What is the value of the digit 2 in 862,154?	**2,000**
5	In 173,480, what place is the digit 7 in, and what is its value?	**ten-thousands place; 70,000**
6	Write 4,306 as 4 thousands, hundreds, tens, and ones. Then write it using 43 hundreds, tens, and ones.	**4 thousands, 3 hundreds, 0 tens, 6 ones; 43 hundreds, 0 tens, 6 ones**

PART 2 · APPLY IT

1. **306,014; 300,000 + 6,000 + 10 + 4** Write the digits in order by place value, using 0 for the ten-thousands and hundreds places. Then add the values of the nonzero digits.
2. **7 thousands, 4 hundreds, 5 tens, 0 ones; 74 hundreds, 5 tens, 0 ones** The first form names each place. Since 74 hundreds equals 7,400, 7,450 can also be written with 74 hundreds, 5 tens, and 0 ones.

CHALLENGE

330,589. A 3 must be in the ten-thousands place, and the other 3 is the smallest digit that can go in the hundred-thousands place. Put the remaining digits in order from least to greatest: 0, 5, 8, 9.

Accept equivalent expanded forms that omit zero-value places. Accept word forms with or without “and” if all place values are correct.