LESSON MAKER PRO

Place Value Detectives

Show what each digit is worth.

GRADE 4 · 4.N.1.2

4.N.1.2 "Use place value to describe whole numbers between 1,000 and 1,000,000 in terms of millions, hundred-thousands, tenthousands, thousands, hundreds, tens, and ones with written, standard, and expanded forms."

NAME _____ DATE _____

THE BIG IDEA

A digit's place tells its value. To write a number in expanded form, add the values of its nonzero digits. A zero holds a place, but it does not need its own term in expanded form.

WORKED EXAMPLE

Write 384,206 in expanded form and written form.

1. The 3 is worth 300,000, the 8 is worth 80,000, and the 4 is worth 4,000.
2. The 2 is worth 200, and the 6 is worth 6. The 0 holds the tens place.
3. Add the nonzero values for expanded form. Then say the number in words.

Answer: 300,000 + 80,000 + 4,000 + 200 + 6; three hundred eighty-four thousand two hundred six

PRACTICE 6 problems

1 Write 507,304 in expanded form.

ANSWER _____

2 Write 600,000 + 20,000 + 900 + 8 in standard form.

ANSWER _____

3 Write 73,015 in written form.

ANSWER _____

4 Fill in the missing value: 418,632 = 400,000 + ___ + 8,000 + 600 + 30 + 2.

ANSWER _____

5 What is the value of the digit 9 in 294,157?

ANSWER _____

6 Write 1,000,000 in words. What place is the digit 1 in?

ANSWER _____

APPLY IT Show your work

1 A reading app shows that students at a school read 126,405 pages this month. Write that number in expanded form. What is the value of the digit 2?

WORK SPACE

ANSWER _____

2 A game announces a score of three hundred fifty thousand seventy. The scoreboard shows 350,700. Do the words and the scoreboard show the same number? Write the score from the announcement in standard form.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Use each digit 0, 2, 4, 6, 8, and 9 exactly once to make the greatest six-digit number you can. Put 4 in the ten-thousands place and 0 in the tens place. Write your number in standard and expanded forms. Explain why it is the greatest possible number.

WORK SPACE AND ANSWER

ANSWER KEY

Place Value Detectives

GRADE 4 · 4.N.1.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write 507,304 in expanded form.	**500,000 + 7,000 + 300 + 4**
2	Write 600,000 + 20,000 + 900 + 8 in standard form.	**620,908**
3	Write 73,015 in written form.	**seventy-three thousand fifteen**
4	Fill in the missing value: 418,632 = 400,000 + ___ + 8,000 + 600 + 30 + 2.	**10,000**
5	What is the value of the digit 9 in 294,157?	**90,000**
6	Write 1,000,000 in words. What place is the digit 1 in?	**one million; millions place**

PART 2 · APPLY IT

1. **100,000 + 20,000 + 6,000 + 400 + 5; 20,000** Break 126,405 into the values of its nonzero digits. The 2 is in the ten-thousands place.
2. **No; 350,070** The announcement gives 350,000 + 70 = 350,070. The scoreboard shows 350,700, so the two scores are not equal.

CHALLENGE

948,602 = 900,000 + 40,000 + 8,000 + 600 + 2. With 4 and 0 in their required places, putting the remaining digits in order from greatest to least, starting at the hundred-thousands place, makes the greatest number.

Accept expanded forms that include zero-value terms. In written form, accept answers with or without “and” if the place values are clear.