LESSON MAKER PRO

Place Value Detectives

Find what each digit is worth.

GRADE 3 · 3.NS.1.b

3.NS.1.b "Apply patterns within the base 10 system to determine and communicate, orally and in written form, the place and value of each digit in a six-digit whole number (e.g., in 165,724, the 5 represents 5 thousands and its value is 5,000)."

NAME _____ DATE _____

PLACE MAKES VALUE

In a six-digit number, count places from right to left: ones, tens, hundreds, thousands, ten-thousands, and hundred-thousands. A digit's value is the digit multiplied by the value of its place.

WORKED EXAMPLE

What place is the 8 in 482,391? What is its value?

1. Begin at the ones place on the right.
2. Move left: 1 ones, 9 tens, and 3 hundreds.
3. Continue left: 2 thousands, 8 ten-thousands, and 4 hundred-thousands.
4. The 8 means 8 ten-thousands, or 80,000.

Answer: The 8 is in the ten-thousands place. Its value is 80,000.

PRACTICE 6 problems

1 What place is the 3 in 731,406? What is its value?

ANSWER _____

2 What place is the 9 in 259,814? What is its value?

ANSWER _____

3 What place is the 6 in 164,275? What is its value?

ANSWER _____

4 What place is the 3 in 503,682? What is its value?

ANSWER _____

5 What place is the 5 in 918,057? What is its value?

ANSWER _____

6 What place is the 0 in 670,124? What is its value?

ANSWER _____

APPLY IT Show your work

1 During a reading challenge, students read 346,219 pages. What does the digit 4 represent?

WORK SPACE

ANSWER _____

2 A video game player earned 625,408 points. What does the digit 4 represent?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A robot contest score has 4 hundred-thousands, 0 ten-thousands, 6 thousands, 0 hundreds, 8 tens, and 0 ones. Write the number. Then tell what each digit represents.

WORK SPACE AND ANSWER

ANSWER KEY

Place Value Detectives

GRADE 3 · 3.NS.1.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	What place is the 3 in 731,406? What is its value?	**The 3 is in the ten-thousands place. Its value is 30,000.**
2	What place is the 9 in 259,814? What is its value?	**The 9 is in the thousands place. Its value is 9,000.**
3	What place is the 6 in 164,275? What is its value?	**The 6 is in the ten-thousands place. Its value is 60,000.**
4	What place is the 3 in 503,682? What is its value?	**The 3 is in the thousands place. Its value is 3,000.**
5	What place is the 5 in 918,057? What is its value?	**The 5 is in the tens place. Its value is 50.**
6	What place is the 0 in 670,124? What is its value?	**The 0 is in the thousands place. Its value is 0.**

PART 2 · APPLY IT

1. **The 4 represents 4 ten-thousands, or 40,000. In 346,219, the 4 is in the ten-thousands place. Its value is 40,000.** The 4 represents 4 ten-thousands, or 40,000. In 346,219, the 4 is in the ten-thousands place. Its value is 40,000.
2. **The 4 represents 4 hundreds, or 400. In 625,408, the 4 is in the hundreds place. Its value is 400.** The 4 represents 4 hundreds, or 400. In 625,408, the 4 is in the hundreds place. Its value is 400.

CHALLENGE

406,080. The 4 represents 400,000, the 0 in the ten-thousands place represents 0, the 6 represents 6,000, the 0 in the hundreds place represents 0, the 8 represents 80, and the 0 in the ones place represents 0.

Accept place names written with or without hyphens, such as ten-thousands or ten thousands. Accept equivalent wording such as “4 ten-thousands” for 40,000 when both the place and value are correct.