LESSON MAKER PRO

Digit Value Detectives

Find the place and value of each digit.

GRADE 2 · 2.NS.2.c

2.NS.2.c "Apply patterns within the base 10 system to determine and communicate, orally and in written form, the place (ones, tens, hundreds) and value of each digit in a three-digit whole number (e.g., in 352..."

NAME _____ **DATE** _____

PLACE MAKES VALUE

In a three-digit number, the digits show hundreds, tens, and ones from left to right. A digit's value depends on its place. Each place to the left is worth 10 times as much.

WORKED EXAMPLE

A game shelf has 641 games. What place is the 4 in? What is its value?

1. Read the places from left to right: hundreds, tens, ones.
2. The 4 is in the tens place.
3. 4 tens means 4 groups of 10.
4. 4 tens = 40.

Answer: The 4 is in the tens place. Its value is 40.

PRACTICE 5 problems

1 A toy box has 482 blocks. What place is the 8 in? What is its value?

ANSWER _____

2 A pet shop has 307 fish. What place is the 3 in? What is its value?

ANSWER _____

3 A snack stand has 569 apples. What place is the 9 in? What is its value?

ANSWER _____

4 A library has 714 comic books. What place is the 1 in? What is its value?

ANSWER _____

5 A class has 230 crayons. What place is the 2 in? What is its value?

ANSWER _____

APPLY IT Show your work

1 Noah has 356 stickers in his collection. His teacher asks, "What does the 5 mean?" Write the place and value of the 5.

WORK SPACE

ANSWER _____

2 A zoo has 908 visitors before lunch. What does the 9 mean in 908? Write the place and value of the 9.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Mia has 426 beads. Omar has 264 beads. In which number does the digit 2 have the greater value? Explain your thinking.

WORK SPACE AND ANSWER

ANSWER KEY

Digit Value Detectives

GRADE 2 · 2.NS.2.c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A toy box has 482 blocks. What place is the 8 in? What is its value?	**The 8 is in the tens place. Its value is 80.**
2	A pet shop has 307 fish. What place is the 3 in? What is its value?	**The 3 is in the hundreds place. Its value is 300.**
3	A snack stand has 569 apples. What place is the 9 in? What is its value?	**The 9 is in the ones place. Its value is 9.**
4	A library has 714 comic books. What place is the 1 in? What is its value?	**The 1 is in the tens place. Its value is 10.**
5	A class has 230 crayons. What place is the 2 in? What is its value?	**The 2 is in the hundreds place. Its value is 200.**

PART 2 · APPLY IT

1. **The 5 is in the tens place. It means 5 tens, or 50.** Find the 5 in 356. It is in the tens place, so its value is 50.
2. **The 9 is in the hundreds place. It means 9 hundreds, or 900.** Find the 9 in 908. It is in the hundreds place, so its value is 900.

CHALLENGE

The 2 has the greater value in 264. It is in the hundreds place, so its value is 200. In 426, the 2 is worth 20.

Accept place names and values written in words or numerals, such as “tens, 80” or “8 tens, 80.” For the challenge, accept any clear explanation that compares 200 and 20.