

Place Value, Face Value, Expanded Form, and Ordering Large Numbers

A. Fill in the Blanks

1. The value of a digit determined by the digit itself is its _____.
2. In the International System of Numeration, commas are placed after every _____ digits from the right.
3. 1 Billion = _____ Million.
4. The predecessor (number before) of 50,000,000 is _____.
5. The standard form of $(9 \times 10^8) + (2 \times 10^5) + (7 \times 10^2)$ is _____.

B. Match the expression in Column A with its correct value or form in Column B.

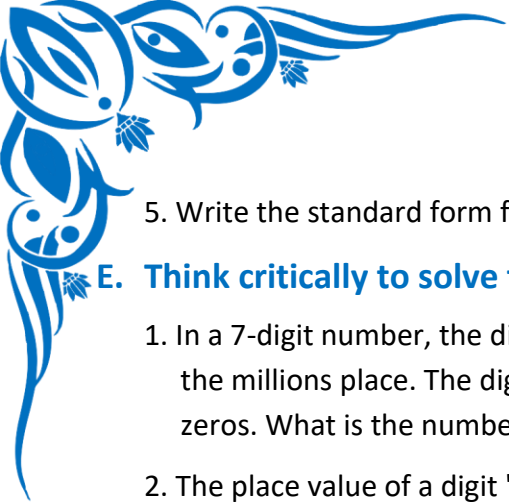
Column A	Column B
1. $40,000,000 + 500,000 + 6,000 + 70$	A. 4,506,700.
2. Four million, five hundred six thousand, seven hundred	B. 40,506,070.
3. The place value of 5 in 45,067,000	C. 405,067.
4. $(4 \times 10^5) + (5 \times 10^3) + (6 \times 10^2) + (7 \times 10^0)$	D. 5,000,000.
5. Successor of 40,506,069	E. Four hundred five thousand, sixty-seven

C. Apply your knowledge to solve the following problems involving large numbers.

1. Write the number 3,109,456,278 in words using the International Numbering System.
2. Write the following number in expanded form using exponents: 8,402,516
3. Write the standard numeral for: $(6 \times 10,000,000) + (4 \times 100,000) + (9 \times 10,000) + (5 \times 100) + (2 \times 1)$
4. Find the difference between the place value of the two '5's in the number 95,235,140.
5. Write the number that is 100,000 more than 45,987,123.

D. Answer these quick questions to get your brain warmed up!

1. In the number 845,123, what is the place value of the digit 4?
2. In the number 6,297,531, what is the face value of the digit 9?
3. Write the number 72,945 in expanded form.
4. Arrange the following numbers in ascending order (smallest to largest): 9,876; 9,786; 9,967; 9,687



5. Write the standard form for: Fifty-three thousand, six hundred two.

E. Think critically to solve these challenging problems

1. In a 7-digit number, the digit in the millions place is 4. The digit in the thousands place is half the digit in the millions place. The digit in the hundreds place is the largest single digit. The remaining digits are all zeros. What is the number?
2. The place value of a digit 'A' in a number is 8,000,000. The place value of another digit 'B' is 300. If 'A' and 'B' are digits in the same number, what is the product of their face values?
3. Arrange the following in ascending order: A: 5,050,055 B: $(5 \times 10^6) + (5 \times 10^4) + (5 \times 10^1)$ C: Five million, fifty thousand, five hundred
4. Consider the number 714,982,356. If you swap the digit in the ten millions place with the digit in the ten thousands place, what is the new number? Is the new number larger or smaller than the original number? New Number: _____ Larger or Smaller?
5. How many thousands are there in one billion?

F. Solve these real-world problems.

1. The populations of three countries in 2023 were approximately: Country A: 142,862,763 Country B: 142,577,580 Country C: 339,996,563 Arrange the countries from most populated to least populated.
2. A tech company reported a yearly revenue of \$5,280,450,000. Write this amount in expanded form.
3. The distance from Earth to the Sun is about 149,600,000 kilometers. The distance from Earth to Mars can be about 225,000,000 kilometers. Which distance is greater? Write the greater distance in words.
4. You are writing a check for a new car that costs \$47,095. On the check, you must write the amount in words. What would you write?
5. A digital library has 1,024,576 e-books. The library plans to add 100,000 more e-books next year. What will be the total number of e-books? Express the new total as a sum of the place values of its digits (expanded form).

G. True or False

1. In the number 3,456,789, the place value and face value of the digit 4 are the same. _____
2. The expanded form of 70,502,009 is $70,000,000 + 500,000 + 2,000 + 9$. _____
3. 8,080,808,000 is greater than 8,800,080,000. _____
4. The smallest 7-digit number that can be formed using the digits 1, 0, 8, 3, 5, 2, 9 is 0,123,589. _____
5. The place value of 0 in the number 90,451,234 is zero. _____