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#11126—Algebra Readiness, Guided Practice Book
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Understanding Whole Numbers

Directions: Solve each problem.

1. Write in words the value of each underlined digit.
   - 5,222,222 __________________
   - 222,225 ___________________
   - 252,222 ___________________
   - 22,252 ___________________
   - 2,522 ___________________
   - 5,222 ___________________

2. Explain how you know the value of each 5.
   ________________________________
   ________________________________

Directions: Fill in each blank with the correct period name for the following numbers.

3. 5,246,842
   - 5____________  246 ____________  842 ____________

4. 900,735,215
   - 900__________  735 ____________  215 ____________

Directions: Write in words the name of the place value of each underlined digit. Then, identify in words the value of that digit.

5. 34,527
   - Place value: _________________
   - Value of digit: _______________

6. 832,576,104
   - Place value: _________________
   - Value of digit: _______________

7. 912,620,215
   - Place value: _________________
   - Value of digit: _______________

8. 264,173,003
   - Place value: _________________
   - Value of digit: _______________
Understanding Whole Numbers (cont.)

Directions: Write each number in standard form.

9. ten thousand, seven hundred thirty-two ________________________________
10. seven hundred forty-five thousand, two hundred fifty-five ________________
11. four hundred five thousand, three ________________________________
12. two million, fifty-seven thousand, three hundred five __________________
13. fifty-seven million, two hundred four thousand, sixty ____________________
14. $500 + 30 + 2$ _______________________________________________
15. $6,000 + 200 + 3$ _______________________________________________
16. $400,000 + 20,000 + 50$ __________________________________________

Directions: Write each number in expanded form.

17. $485,253$ _______________________________________________________
18. $7,215,000$ _____________________________________________________
19. $5,002,000$ _____________________________________________________
20. $3,056,023$ _____________________________________________________

Directions: Read and answer each question.

21. Write the smallest 8-digit number in which each digit is used only once. Do not use zero and do not use decimals.

__________________________________________________________

22. Saturn has a diameter of about one hundred twenty thousand kilometers. Write this diameter in standard form.

__________________________________________________________

23. Venus has a diameter of about twelve thousand, one hundred kilometers. Write this diameter in standard form.

__________________________________________________________

Bonus

24. By taking expanded form one step further, a number such as 2,304 may be written as $2 \cdot 1,000 + 3 \cdot 100 + 4 \cdot 1$. Write 402,370 in the same sort of expanded form.

__________________________________________________________
Understanding Decimals

Directions: Write each number in expanded form.

1. 42.175
   
2. 0.9316
   
3. 500.028
   
4. 90,000.0004

Directions: Place >, <, or = between each set of two numbers so that there is a true statement of the form a > b, a < b, or a = b.

5. 48.219 ___________ 48.292

6. 0.385 ___________ 0.098

7. 1.285 ___________ 1.275

8. 99.989 ___________ 99.999

Directions: Place the numbers in increasing order.

9. 0.816; 0.429; 15.624; 15.426; 2.947

Apply It!

Directions: Let a represent the money in Anton’s checking account and let b represent the money in Bo-Bae’s checking account. Use a and b to write inequalities that compare their accounts for each situation below.

10. Anton has $135.97 and Bo-Bae has $248.62. _______________________

11. Anton has $1,638.97 and Bo-Bae has $1,638.79. _______________________

12. Anton has $529.48 and Bo-Bae has $628.47. _______________________