

CSS: Perform operations with numbers expressed in scientific notation; interpret scientific notation that has been generated by technology.

Name: _____ Date: _____ Per.: _____

LT Pre Test

Directions: Show what you know about the following topic by completing the problems below. Make sure to show all work.

1. Define scientific notation.		
2. a) Compose the following decomposed number into a number between 11 and 19. $10 + 4 =$ b) Decompose the following number into its 10 and ones. $19 =$ (K.NBT.1)	3. Compare the numbers below by determining which number is larger. a) 15 & 19 b) 13 & 23 c) 5 & 10 d) 45 & 47 (1.NBT.2)	
4. Compare the following numbers using <, > or =. a) 123 154 b) 126 124 c) 456 256 d) 654 650 (2.NBT.4)	5. Round the following number to the nearest... a) 10 $123 =$ $137 =$ $256 =$ $455 =$ b) 100 $255 =$ $225 =$ $456 =$ $675 =$ (3.NBT.1)	
6. Apply concepts of division and multiplication to solve the problems below without a calculator. a) $20 \times 10 =$ b) $36 \times 100 =$ c) $543 \div 100 =$ d) $75 \div 10 =$ (4.NBT.1, 5.NBT.1)	7. Compare the following numbers using <, > or =. a) 35 135 b) 543 54 c) 654 76 d) 23 223 (4.NBT.3)	8. Round the following numbers to the indicated place value. a) To the nearest ten: 125 b) To the nearest hundred: 1243 c) To the nearest thousand: 5500 (4.NBT.3)

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9. Suppose you have the number 3000, how could you explain this number using powers of 10 based on the number of 0's?

Suppose you have the problem 3.45×10 , what happens to the decimal point when you perform this operation? Explain where the location of the decimal using powers of 10.

Write the following powers of 10 as a power using whole number exponents with a base of 10.
 $10 =$

$1000 =$

$10000000 =$

$0.001 =$

(5.NBT.2)

10. a) Write the following as a number: one and fifteen hundredths =

b) What is the numerical name for the following number? 2.134

c) Compare the numbers below using <, >, or = symbols.

1.45 0.45

2.342 2.341

6.321 6.421

(5.NBT.3)

11. Round the following numbers to the indicated place value.

a) tenths

$1.23 =$

b) thousandths

$2.3156 =$

c) hundredths

$3.45785 =$

(5.NBT.4)

12. Write the following numbers in scientific notation.

a) 234,000,000,000 =

b) 12,000,000 =

c) 0.0000015 =

d) 0.0000000000002357 =

(8.EE.3)

13. Solve the following problems.

a) $(1.23 \times 10^3)(3.45 \times 10^7) =$

b) $\frac{3.5 \times 10^5}{2 \times 10^3} =$

c) $(5.4 \times 10^4) + (6.25 \times 10^3) =$

(8.EE.4)

14. You typed in a problem into your calculator and it spit out this as an answer:

4.55234E-12

What does this mean?

(8.EE.4)

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