CSS: Know and apply the properties of integer exponents to generate equivalent numerical expressions.

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 integer exponents.	2. Define numerical expressions.
3. Write the following numbers using powers of 10. a) 500 = b) 5200 = c) 0.15 = (5.NBT.2)	4. Write and evaluate the following numerical expressions. a) $2^5 =$ b) $0^{10} =$ c) $1^{15} =$ d) $3^3 =$ (6.EE.1)

5. Explain the following rules for exponents.
Product of Power Property -

Power of Power Property-

Power of a Product Property-

Quotient of Power Property-

Zero and Negative Exponent Property-

<div align="right">(8.EE.1)</div>

6. Use the properties above to simplify the following problems.

a) $10^{12} \bullet 10^{35} =$

b) $a^7 \bullet a^{12} =$

c) $g^{12} \bullet g^{19} \bullet g^{11} =$

d) $\left(8c^5\right)^2 =$

e) $\left(a^7\right)^5 =$

f) $\dfrac{10^6}{10^2} =$

g) $\dfrac{4^{17}}{4^{14}} =$

h) $4^{-3} =$

i) $3^0 =$

<div align="right">(8.EE.1)</div>

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