MasterMath'h

Scientific Notation; Fractional Exponents

Name _____

Date _____

1. Simplify if necessary, and then rewrite each number to fill in the blank:

longhand	Scientific Notation
	4.2×10^{-12}
265,300,000,000,000	
800 * 465,000,000	
.00042 ÷ 6,000,000	
	6.258×10^{16}
.0000000000000000001	
.0002 * .0002	

2. Order from largest to smallest: 1.26×10^{12}; 1.25×10^{12}; 126,000,000,000

smallest	middle	largest

3. Evaluate the expression; write your answer in scientific notation. Show your steps: $(3.2 \times 10^6)^2$

4. Evaluate the expression; write your answer in scientific notation. Show your steps: $(1.6 \times 10^4)(1.2 \times 10^5)$

5. Evaluate the expression; write your answer in scientific notation. Show your steps: $(1.65 \times 10^{-12})(3.2 \times 10^{-5})$

6. Evaluate the expression; write your answer in scientific notation. Show your steps: $(3.2 \times 10^5)(1.2 \times 10^{-2})$

7. Evaluate this expression; write your answer in scientific notation.

$$\frac{1.65 \times 10^3}{1.25 \times 10^4}$$

8. Evaluate this expression; write your answer in both scientific notation and in longhand: $(1.1 \times 10^6)^{-2}$

STEPS			
		Scientific Notation	Longhand

9. Simplify these expressions:

Expression	Simplified
$9^{-1/2}$	
$66 - 64^{1/3}$	
$24 * 81^{-1/4}$	
$9^{1/2} * 16^{1/4}$	

10. Light travels at approximately 3.0×10^8 m/sec. How far will it travel in a week?

STEPS			
		Scientific Notation	Longhand