## Review for Test #2 - Scientific Notation

Name:			Class:	
Write	e each number in scientific notation.			
1.)	45,100,00		2.)	0.00032
Write	e each number in standard notation.			
3.)	3.8×10 <sup>-7</sup>		4.)	2.15×10 <sup>5</sup>
5.)	Write the following numbers in order from least to greatest.			
	$3.5 \cdot 10^8$ , $3.9 \cdot 10^6$ , $7.1 \cdot 10^6$ `			
	Explain how you know.			
6.)	Multiply: $(3.4 \cdot 10^8) \cdot (4.8 \cdot 10^{13})$		7.)	Add: $(6.4 \cdot 10^9) + (8.2 \cdot 10^8)$
8)	Divide: $(1.6 \cdot 10^8)$		9.)	Subtract: $2.8 \times 10^5 - 4.1 \times 10^3$
0.)	$(4 \cdot 10^{11})$			
10.)	Which of the following is <b>not</b> equivalent to	2 <sup>4</sup> · 2 <sup>-7</sup>	?	
	(A) $2^{-3}$ (B) $\frac{1}{2^3}$	(C)	$\frac{1}{8}$	(D) $\frac{1}{6}$
11.)	What is equivalent to $3^5 \cdot 3^{-8}$ ?			
	(B) $-27$ (B) $-\frac{1}{27}$	(C)	$\frac{1}{27}$	(D) 27

12.) A rectangular yard has a length of  $4 \cdot 10^{-3}$  kilometer and a width of  $6 \cdot 10^{-5}$  kilometer. Use scientific notation to express the area of the yard in square kilometers, showing each step in the process.

13.) If something grows at a rate of  $8.4 \cdot 10^{-5}$  inches per year, how long will it be after it grows for  $9.1 \cdot 10^7$  years?

14.) The SR-71 "Blackbird" one of the world's fastest airplanes. It is capable of cruising pseed of Mach 3, or three times the speed of sound. The speed of sound is approximately  $7.6 \times 10^2$  miles per hour. How fast is the SR-71 capable of flying? Express your answer in scientific notation.

- 15.) Consider number A, which is 35,000,000, and number B, which is 7,000,000.
  - a) Write each number in scientific notation. Number A: \_\_\_\_\_

Number B: \_\_\_\_\_

b) How many times larger is number A than number B?

16.) About  $3.16 \cdot 10^8$  people live in the USA. About  $1.357 \cdot 10^9$  people live in China. How many more people live in China than the USA?