





Methods of studying...

- "I taught my mom and she understood which showed that I did too."
- "Mr. Lischwe went a little too fast, so after going over his website I am now all caught up."

Methods of studying...

- "I chose make my own problems it's helpful because I know exactly what problems I can't do so if I make my own I can have a great example."
- "Rework missed problems really helped because I saw what I needed help on and didn't waste time on things I understand."

Simplify: $\frac{e^0 w^1 u^{-2} h^3 p^{-5} t^6 s^7}{a^{-4}}$



TODAY: Scientific Notation Review MONDAY: Calculating with Scientific Notation TUESDAY: Scientific Notation Story Problems WEDNESDAY: Exponents & Sci Notation Review THURSDAY: Exponents & Sci Notation Review FRIDAY: Exponents & Sci Notation TEST

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	p. 1 p. 2 p. 3 p. 4 p. 5	Exponent Basics (1.2) Multiplying and Dividing Powers (1.3) Power to a Power (1.4) Zero & Negative Exponents (1.5) Scientific Notation (1.6)	
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POP QUIZ (not graded)	
1. 4 x 10 8. 0.2 ÷ 10 2. 68 x 100 9. 52.5 ÷ 10 3. 3.2 x 10 10. 7 ÷ 100 4. 3.2 x 100 5. 9.251 x 10 6. 97 ÷ 10 7. 3 ÷ 10	

Answers1. 4×10 402. 68×100 6800 3. 3.2×10 32 4. 3.2×100 320 5. 9.251×10 92.51 6. $97 \div 10$ 9.7 7. $3 \div 10$ 3 8. $0.2 \div 10$ 02 9. $52.5 \div 10$ 5.25 10. $7 \div 100$ $.07$			
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10. 7 ÷ 100 .07	9. 52.5	÷ 10 5.25	
	10. 7 ÷	100 .07	
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• Let's google "Weight of the earth"

Some really big numbers...

Distance from Earth to Pluto (miles) 2,660,000,000 Number of cells in your body (estimate) 37,200,000,000,000 Mass of the earth (kilograms) 5,972,000,000,000,000,000,000 A googol



















	Which numbe	er is bigger	/
	953 x 10 ⁴	9,530,000	
\geq	or		
	6 x 10 ⁵ ?	600,000	~
\leq			







Put these numbers in INCREASING order:

o3.2 x 10⁴	6.15 x 10 ²
o2.8 x 10³	2.8 x 10 ³
o 8 x 10 ³	8 x 10 ³
●6.15 x 10 ²	3.2 x 10 ⁴

Some really small numbers...

- <u>Smallest size object your eye can see</u> (meters)
- o 0.0001
- Diameter of a human hair (meters)
- o 0.000025
- Size of 1 water molecule (meters)
- o 0.00000000275

Another way of writing this?

 06×10^{-4} $\frac{6}{10^4}$

You don't have to write it this way. I just showed you this to help you see **WHY** it works the way it does!!!

Negative Exponents in Scientific Notation o 6 x 10⁻⁴ is like dividing by ten 4 times. o Each time you move the decimal to the left, you are really dividing by ten.

Converting from Scientific to				
Standard Notation				
Scientific Notation \rightarrow	Standard Notation			
1. 9 x 10 ⁴	90,000			
2. 3.45 x 10 ⁶	3,450,000			
3. 9.1234 x 10 ²	912.34			
4. 6.04 x 10 ⁻⁴	.000604			
5. 8 x 10 ⁻³	.008			

Writing Numbers in Scientific		
Notation		
Standard Notation	$n \rightarrow \text{Scientific Notation:}$	
1. 8,000,000	8 x 10 ⁶	
2. 75,000	7.5 x 10 ⁴	
3. 1405	1.405 x 10 ³	
40000054	5.4 x 10 ⁻⁶	
5. 0.07	7 x 10 ⁻²	

