Scientific Notation Review

Different ways to write same value:

300 million meters/s

300000000 m/s

"3 with 8 zeros after it" m/s

3 10ˆ 8 m/s

3×10^8 m/s

3e8 or 3d8 (programming languages)

3 EE 8 (into calculator)

Math In Scientific Notation

** To multiply numbers in scientific notation, multiply the (first #) and add the exponents

eg: $4 \times 10^5 * 3 \times 10^3 = 12 \times 10^8 = 1.2 \times 10^9$

** To divide numbers in scientific notation, divide the bas #) and subtract the exponents

eg: $3 \times 10^6/1 \times 10^{-7} = 3 \times 10^{(6--7)} = 310^{13}$

** To add or subtract numbers in scientific notation: no e except to ignore one of the numbers entirely (if you can):

eg: $10^9 + 10^2 \simeq 10^9$

Careful: 10^5 is *not* 10×10^5! Punch into calculator as 1 EI 10 EE 5!