Name _____ Date:_____
Period: _____ Scientific Notation

I. Express the following numbers using exponential notation also known as scientific notation:

1. 10,000
2. 0.0001
3. 10,000,000,000
4. 50,000
5. 2,000,000,000
6. 0.000004
7. 0.0003
8. 790,000
9. 26,000,000,000,000
10. 0.000000045
11. 48,000,000
12. 0.00000000000000000013
13. 0.0175
14. 0.0000462
15. 3,000,000
16. 9,200,000
17. 371
18. 0.00900
19. 0.62
20. 0.000197
21. 328,500
22. 76,450
23. 0.9410
24. 3005
25. .000705
26. 80,000,000,000
27. 6240
28. 17,500,000
29. 0.05302
30. 0.00000000000915
31. 28
32. 7.480
33. 280,500,000
34. 134.2
35. 0.000089

II. Write the following numbers in the "long form":

1. 1.00×10^{5}
2. 1×10^{-12}
3. 4×10^{2}
4. 5×10^{-6}
5. 3.2×10^{-2}
6. 7.95×10^{-1}
7. 6.854×10^{14}
8. 14.3×10^{2}
9. 9.065×10^{-4}
10. 4.3×10^{3}

CHEMISTRY

9.5×10^{3} cm / 4.2×10^{-3} sec (Speed)
1.2×10^{-6} mm/3.2×10^{4} min (Speed)
5.8×10^{6} lbs/ 4.2×10^{-2} in2 (Pressure)
2.3×10^{-1} cm x 1.5×10^{-3} cm x 2.6×10^{-1} cm (Volume)

Practice using your calculator with scientific notation. Make sure that you are entering the numbers correctly using the EE or EXP button (Some of you have a button labeled [$x\ 10^{n}$]. Record all answers in scientific notation.

1. $7.95 \times 10^{-1} + 3.2 \times 10^{-2}$ = (Add)
2. $3.28 \times 10^{6} - 2.3 \times 10^{5}$ = (Subtract)
3. (8.53×10^{3}) (3.20×10^{-2}) = (multiply)
4. 2.2×10^{-2} x 4.3×10^{-2} = (multiply)
5. 2.8×10^{3} / 9.065×10^{3}= (divide)
6. (5.0 x 6.5×10^{7}) / 4.912×10^{3} =(divide)
7. [$5.2 \times 10^{-1} + 2.0 \times 10^{-1}$] / 2.3×10^{-1} = (Add then divide. When adding either press = before dividing OR put the numerator in the ( ) in your calculator)
8. 7.95×10^{-1} / ($5.36 \times 10^{6} + 3.2 \times 10^{6}$) = (when dividing put denominator in ( ) on calculator

HONORS CHEMISTRY:

9.5×10^{3} cm / 4.2×10^{-3} sec (Speed)
1.2×10^{-6} mm/3.2×10^{4} min (Speed)
5.8×10^{6} lbs/ 4.2×10^{-2} in2 (Pressure)
2.3×10^{-1} cm x 1.5×10^{-3} cm x 2.6×10^{-1} cm (Volume)

Practice using your calculator with scientific notation. Make sure that you are entering the numbers correctly using the EE or EXP button (Some of you have a button labeled [$x\ 10^{n}$]. Record all answers in scientific notation and include the units

1. 7.95×10^{-1} meters + 3.2×10^{-2} meters =
2. 3.28×10^{6} kilgraoms - 2.3×10^{5} kilograms =
3. (8.53×10^{3}cm) (3.20×10^{-2} cm) =
4. 2.2×10^{-2} in x 4.3×10^{-2} in x 1.3×10^{-1} in=
5. 2.8×10^{3} kg / 9.065×10^{3} Liter =
6. (5.0 x 6.5×10^{7} grams) / 4.912×10^{3} mole =
7. [5.2×10^{-1} + 2.0×10^{-1} miles] / 2.3×10^{-1} hour = (Add then divide. When adding either press = before dividing OR put the numerator in the ( ) in your calculator)
8. 7.95×10^{2} pounds / (5.36×10^{3} ft + 3.2×10^{2} ft) = (when dividing put denominator in ( ) on calculator)