|  |  |  |
| --- | --- | --- |
| Avogadro’s Number is also called the MOLE!  CλeMis+ry: http://genest.weebly.com  Stop in for help every day at lunch and Tues, Weds., &Thurs after school! |  | Name\_\_\_\_\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. What are a few of the conversion factors from today’s class?

(fill in from your classwork sheet or from the class web site after 5pm)

|  |
| --- |
| or |

Problems with a \*\* will need to use the box above…

1. State Avogadro’s Hypothesis: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Avogadro’s Number was named in his honor after he died. He never saw this number. Write Avogadro’s number:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. If you had 4.66x1025 things, how many moles would you have?
2. If you had 66 moles of things, how many things would you have?
3. If you had 8.11x1025 atoms, how many moles of atoms would you have?
4. If you had 90,000. liters of nitrogen molecules, how many molecules would you have?\*\*
5. If you had a stack of paper 44 inches tall \*\*
   1. how many sheets would be in it?
   2. How many moles of sheets would that be?
6. If you had a string of holiday lights one kilometer long\*\*
   1. how many lights would be in it?
   2. How many moles of lights would that be?
7. If you had a string of holiday lights that contained one mole of holiday lights, what would \*\*
   1. be its length in meters?
   2. In kilometers?
   3. Look up the distance from the Earth to the Sun in kilometers (Internet!) Sketch below the Earth, the Sun, and how long your string of lights would be.
8. If you had a mole of beans “A”, \*\*
   1. how many beans would that be?
   2. What would that many beans weigh?
   3. Look up the mass of the Earth. Sketch below the Earth, and a mole of beans based on your previous answer.