|  |  |  |
| --- | --- | --- |
| Working Backwards to Find a Formula  CλeMis+ry: http://genest.weebly.com  Stop in for help every day at lunch and Tues &Thurs after school! |  | Name\_\_\_\_\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. Can you see a molecule? \_\_\_\_\_\_\_\_\_\_ 2. Explain why \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. Can you count the molecules by looking at a chemical reaction? \_\_\_\_\_\_\_\_\_\_\_\_   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. What does Avogadro’s Principle tell us about the number of particles in the four balloons shown below?   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (each balloon contains one substance, an element. There are no compounds.)   |  |  |  |  | | --- | --- | --- | --- | | 2.999 liters of Substance  A  184 grams | 2.999 liters of Substance  B  23 grams | 2.999 liters of Substance  C  276 grams | 2.999 liters of Substance  D  943 grams | | 1. IF we arbitrarily choose **the lightest substance** and divide the others by it, we can get relative ratios of the mass of single pieces. Do this for each substance.    1. Relative Mass of Substance A    2. Relative Mass of Substance B    3. Relative Mass of Substance C    4. Relative Mass of Substance D |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. What does Avogadro’s Principle tell us about the number of particles in the four balloons shown below?   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (each balloon contains one substance, an element. There are no compounds.)   |  |  |  |  | | --- | --- | --- | --- | | 2.999 liters of Substance  E  85 grams | 2.999 liters of Substance  F  221 grams | 2.999 liters of Substance  G  17 grams | 2.999 liters of Substance  H  102 grams | | 1. IF we arbitrarily choose **the lightest substance** and divide the others by it, we can get relative ratios of the mass of single pieces. Do this for each substance.    1. Relative Mass of Substance E    2. Relative Mass of Substance F    3. Relative Mass of Substance G    4. Relative Mass of Substance H |

1. State Proust’s Law: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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