**Mini-quiz #13 Chemistry 1114 section 2 (Fong) 29 Sept 2014 3 pts A**

**Your name:\_\_\_\_\_\_\_\_\_\_\_\_\_answers\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**A sample contains: 9 grams C, 21 g N and 8 g O. What is its empiric formula ?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **element** | **mass** | **Atomic mass**  **(g/mol)** | **n=Mass/Atomic Mass** | **n/nmin** | **X2** |
| **C** | **9** | **12** | **9/12=0.75** | **0.75/0.50=1.5** | **3** |
| **N** | **21** | **14** | **21/14=1.50** | **1.50/0.5=3.0** | **6** |
| **O** | **8** | **16** | **8/16=0.5000** | **0.5/0.5=1** | **2** |

Empiric formula:= \_\_\_\_\_\_\_\_\_\_\_C3N6O2\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Mini-quiz #13 Chemistry 1114 section 2 (Fong) 29 Sept 2014 3 pts B**

**Your name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**A sample is 6 g C, 1.25 g H and 12 g O. What is its empiric formula ?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** | **Mass (g)** | **Atomic mass**  **(g/mol)** | **n=mass/Atomic mass** | **n/nmin** | **X2** |
| **C** | **6** | **12** | **6/12=0.5** | **0.5/0.5=1** | **2** |
| **H** | **1.25** | **1** | **1.25/1=1.25** | **1.25/0.5=2.5** | **5** |
| **O** | **12.0** | **16** | **12/16=0.75** | **0.75/0.50=1.5** | **3** |

Empiric formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_C2H5O3\_\_\_\_\_\_\_\_\_\_\_\_\_

**Mini-quiz #13 Chemistry 1114 section 2 (Fong) 29 Sept 2014 3 pts C**

**Your name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**A sample contains 4.50 g C, 0.1875 g H and 1.75 g N What is its empiric formula ?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** | **Mass (g)** | **Atomic mass**  **(g/mol)** | N=mass/atomic mass | n/nmin | X2 |
| **C** | **4.5** | **12** | 4.5/12=0.375 | 0.375/0.125=3 | 6 |
| **H** | **0.1875** | **1** | 0.1875/1=0.1875 | 0.1875/0.125=1.5 | 3 |
| **N** | **1.75** | **14** | 1.75/14=0.125 | 0.125/0.125=1 | 2 |

Empiric formula: \_\_\_\_\_\_\_\_\_\_C6H3N2\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_