**Chem 1013: mini-quiz # 15: molecular formula and % composition redux A 4 pts March 11**

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

A compound containing 4.8 g C and 6.4 g O has a molecular weight of 84 g/mol. What is the molecular

formula for the compound Cx Oy ?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| element | w=mass,g | GAW (g/mol) |  |  |
| C |  | 12 |  |  |
| O |  | 16 |  |  |

Molecular formula for CxOy: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (2 pts)

2. A sample of CHx is burned to form 8.8 g CO2 and 1.8 g H2O. Given the molecular weights of CO2 and H2O are 44 g/mol and 18 g/mol, what is the empiric formula for CHx , e.g. what is x ?

Formula for CHx = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (2 pts)

**Chem 1013: mini-quiz # 15: molecular formula and % composition redux B 4 pts March 11**

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A compound containing 4.8 g C and 6.4 g S has a molecular weight of 112 g/mol. What is the

molecular formula for the compound CxSy ?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| element | w=mass,g | GAW (g/mol) |  |  |
| C |  | 12 |  |  |
| S |  | 32 |  |  |

Molecular formula for CxSy: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (2 pts)

2. A sample of CHx is burned to form 4.4 g CO2 and 3.6 g H2O. Given the molecular weights of CO2 and H2O are 44 g/mol and 18 g/mol, what is the empiric formula for CHx , e.g. what is x ?

Formula for CHx = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (2 pts)