**SI Worksheet 2**

1. Meth, eth, pro-, and but- all correspond to number of \_\_\_\_\_ in an organic molecule while –ane, -ene, and –yne correspond to the \_\_\_\_\_\_ in an organic molecule.
2. Draw the structure of 3,4-dimethylhexane
3. Compound has a formula of C6H12, draw all possible molecules that could have this formula.
4.  What is this molecule named? (Each bend is a –CH2—group.)
5. Fill in the Blanks. (All are ions)

|  |  |  |
| --- | --- | --- |
| Formula | Name | Charge of the ion |
| NO3 |  |  |
| ClO4 |  |  |
| ClO3 |  |  |
| NH4 |  |  |
| SO4 |  |  |
| SO3 |  |  |
| PO4 |  |  |
| PO3 |  |  |
| H3O |  |  |
| OH |  |  |

1. Name or give formula for following compounds:

|  |  |
| --- | --- |
| Name | Formula |
|  | MnO2 |
| Copper (II) oxide |  |
| Copper (II) chloride  |  |
| Carbon tetrachloride |  |
| Ammonium phosphate |  |
| Sodium Sulfate |  |
|  | PCl3 |
| Sodium nitride |  |
| Aluminum phosphate |  |
|  | CH3COO- |
| Thiosulfate |  |
| Dichromate |  |
|  | CO32- |
| Copper (II) Sulfate |  |

1. What is the common charge of the following atoms when they form ions/have charges? Na, Ag, Br, O, Zn, B, P, and Ca? (in respective order):
2. Compound has the formula AO, which of the following compounds could be substituted for A? (Ca, H, Na, Sr)
3. Consider silica, or silicon dioxide, SiO2. What is the charge on the Si?