

EMPIRICAL AND MOLECULAR FORMULAS

Name_____ Section_____

Date Due_____

1. Determine the empirical formulas for each of the following compounds for which the mass composition or percentage-by-mass composition is given.

a) A compound is 56.58 % K, 8.69 % C and 34.73 % O.

b) A sample of a compound contains 2.23 g Fe and 1.93 g S.

c) A compound is 63.11 % C, 11.92 % H and 24.97 % F.

2. Determine the empirical formulas and actual formulas for the following compounds.

a) A compound having a molar mass of 60 g/mole is 40.0 % C, 6.67 % H and 53.3 % O.

b) A compound has a molar mass of 285 g/mole and is 43.7 % P and 56.3 % O.

c) A compound of molar mass 545 g/mole is 19.81% C, 2.22 % H and 77.97 % Cl