**Chem 1013: mini-quiz # 17: Simple Chemical Body Parts Calculations A 4 pts March 25**

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

Crystal meth has the chemical formula: C10H15N and a molecular weight of 149 grams/mol.

1) How many grams of crystal meth are present in a pure sample containing 10.0671 mol of H ?

(Show work !)

\_\_\_\_\_\_\_\_\_ grams crystal meth

(to nearest gram)

2) How many molecules of crystal meth are in a sample containing 200 grams of C (atomic weight =12

g C/mol). Assume 1 mol count =6\*1023.

\_\_\_\_\_\_\_\_\_\_\_molecules of meth

**Chem 1013: mini-quiz # 17: Simple Chemical Body Parts Calculations B pts March 25**

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

Methadone has the chemical formula: C21H27NO and a molecular weight of 309 grams/mol.

1) How many grams of methadone are present in a pure sample containing 0.87378 mol of H ?

(Show work !)

\_\_\_\_\_\_\_\_\_ grams methadone

(to nearest gram)

2) How many molecules of methadone are in a sample containing 84 grams of C (atomic weight =12 gC/mol). Assume 1 mol count =6\*1023.

\_\_\_\_\_\_\_\_\_\_\_molecules of methadone