**Chem 1013: mini-quiz # 18: One more Chemical Body Parts Calculations**

**Recipe manipulations A 5 pts March 27**

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

Heroin has the molecular formula: C21H23NO5. Its molecular weight is 369.4 g/mol.

How many grams of heroin are present if it contains 1.0828 grams of O (atomic mass 16 g/mol O.)

\_\_\_\_\_\_\_\_\_\_\_\_\_ grams heroin (2 pts)

A cherry pie recipe contains:

1 quart cherries + 2 rolls dough + 3 pats of butter + 2 cups sugar= 1 cherry pie

The masses of the components are; 1 quart cherries = 250 g 1 roll dough = 150 g

1 pat butter = 30 g 1 cup sugar= 175 g

How many grams of sugar are needed to make 3 pies ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How many pies can be made from 600 grams of dough ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How many cups of sugar must be combined with 4 quarts of cherries to make a whole number of pies ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Oxycodone (`Oxy’) has the molecular formula: C18H21NO. Its molecular weight is 267 g/mol.

How many grams of Oxy are present if it contains 1.6179 grams of C (atomic mass 12 g/mol C.)

\_\_\_\_\_\_\_\_\_\_\_\_\_ grams Oxy (2 pts)

A cherry pie recipe contains:

1 quart cherries + 2 roll dough + 3 pats of butter + 2 cups sugar= 1 cherry pie

The masses of the components are; 1 quart cherries = 250 g 1 roll dough = 150 g

1 pat butter = 30 g 1 cup sugar= 175 g

How many grams of dough are needed to make 3 pies ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How many pies can be made from 700 grams of sugar ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How many cups of sugar must be combined with 9 pats of butter to make a whole number of pies ?

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