

This quiz is take-home and open book, and it is intended that all members of the group contribute to completing it. It is a violation of the Academic Honor Code to sign a quiz that you did not work on. **The quiz is due at the end of class on Thursday, April 22.**

List names in alphabetical order, and give social security numbers! Put names on all pages, and stapel pages together

Points

Your drugstore shelves are filled with medications for the symptoms of the common cold. Visit your local drugstore and find the medication called *Vicks NyQuil (Multi-symptom cold relief)*. Note that it contains **four** different **active ingredients**, which we would call **drugs**. These are **over-the-counter** drugs, meaning a prescription is not required.

- (5) 1. For each **dose** of the medication, calculate the **quantity** of each active ingredient in the dose, and the **cost per dose**, based on the cost of the medication and the number of doses it contains. (A dose would be the recommended quantity of the medication taken on a periodic basis). Fill in the following table:

Ingredient	Name	quantity per dose
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
Cost of the medication:		_____
Cost per dose of the medication:		_____

- (2) 2. Most drugstores sell a **generic brand** of the same medication (i.e. an Eckerd's brand, a Walmart brand, a Walgreen's brand). Find at least one generic brand of the same medication and calculate the **cost per dose** for this generic brand (comparing the same size container).

List names in alphabetical order. **Be sure to staple pages together!**

- (4) 3. Now search on the drug store shelf for medications (generic or otherwise) that contain each of the components **individually**. Calculate the cost per dose if you were to buy the four medications separately and take the same quantity:

Ingredient	Cost	# of doses	Cost per dose
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Total cost of four drugs/dose: _____

- (4) 4. For **one** of these drug ingredients, search the **World Wide Web** to obtain the following information. Give the **URL** of the web site where you found each answer. (They all could come from one source). Continue on back of page if necessary.

Drug: _____

Symptom(s) treated by the drug

Potential side effects of the drug

History (discovery, former uses, any tidbit of interesting background)

Source (isolation from natural source, chemical synthesis, partial chemical synthesis?)