### **Dougherty Valley HS Chemistry** CSI Tony DeMoy – Solving a Murder with Empirical Formulas

#### Name:

Period:

Seat#:

Worksheet #7

Directions: Go to the website given to you in class. Using the information on the website, discover who and what killed Tony DeMoy. You will need to read the text on the website, click on links, look at photos, fill out embedded Google Forms, as well as solve some empirical and molecular formulas. Make sure you record notes of key information and all your findings on this worksheet - you want to ensure that your theory and your evidence holds up in court! Normally we say "no work, no points" but this time it is "no work, no conviction!"

Victim Data	Synopsis	The Suspects

## Procedure

- 1) Learn about the suspects from the interrogation reports.
- 2) Evaluate the crime scene evidence.
- 3) Calculate the empirical and molecular formulas of each substance discovered at the crime scene.
- 4) Once you determine which chemicals were found, use the CSI Compound Database to figure out the compound name, and where it may have come from.
- 5) Bring your findings about the possible compounds to the Chief to gain access to the autopsy report.
- 6) Analyze the autopsy report, discover which compound was discovered in Tony DeMoy's system.
- 7) Using the information you gathered from the autopsy report, reflect back to the crime scene evidence and the interrogation reports to put together your theory of the crime.
- Submit your final report include the following items: 8)
  - Empirical formula a. Molecular formula b.
- c. Compound name d. Common uses or sources
- The perpetrator e.
- The motive f.

### **Interrogation Reports**

Kasey Hatterson	Shay Lamarck
Finley Finch	Tony DeMoy
Finley Finch	Tony DeMoy
Finley Finch	<u>Tony DeMoy</u>
<u>Finley Finch</u>	<u>Tony DeMoy</u>

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# Crime Scene Evidence

	Location	Description	Sample Size	Element Data	Molar Mass
		Empirical and Molecu	Ilar Calculation Work		Empirical Formula
t #1					
hibi					
Щ					
					Molecular Formula
	Location	Description	Sample Size	Element Data	Molar Mass
		•	•		
		Empirical and Molecu	Ilar Calculation Work		Empirical Formula
#2					
hibit					
ΕĂ					
					Molecular Formula
	Location	Description	Sampla Siza	Element Data	Molar Mass
	Location	Description	Sample Size	Element Data	
#3		Empirical and Molecu	liar Calculation Work		Empirical Formula
ibit 3					
Exhi					
					Molecular Formula

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	Location	Description	Sample Size	Element Data	Molar Mass
		Empirical and Molecu	ular Calculation Work		Empirical Formula
#4					
bit					
Khi					
ш					
					Molecular Formula

# **CSI Compound Data Base Analysis**

	Exhibit #1	Exhibit #2	Exhibit #3	Exhibit #4
Location				
Molecular formula				
Compound name				
Common uses and sources				
Suspect who may have had access to the compound and how they had access				

## **Autopsy and Final Theory**

During the autopsy, Tony DeMoy was found to have high levels of	in his system.
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This compound is (description) or (used for) or (found in) \_\_\_\_\_\_.

Based on this information we determined that \_\_\_\_\_\_ was the one who murdered Tony

DeMoy because (explain the motive):\_\_\_\_\_