**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.
8. Submit your final report - include the following items:
	1. Empirical formula
	2. Molecular formula
	3. Compound name
	4. Common uses or sources
	5. The perpetrator
	6. The motive

**Interrogation Reports**

|  |  |
| --- | --- |
| *Kasey Hatterson* | *Shay Lamarck* |
| *Finley Finch* | *Tony DeMoy* |

**Crime Scene Evidence**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Exhibit #1** | **Location** | **Description** | **Sample Size** | **Element Data** | **Molar Mass** |
|  |  |  |  |  |
| **Empirical and Molecular Calculation Work** | **Empirical Formula** |
|  |  |
| **Molecular Formula** |
|  |
| **Exhibit #2** | **Location** | **Description** | **Sample Size** | **Element Data** | **Molar Mass** |
|  |  |  |  |  |
| **Empirical and Molecular Calculation Work** | **Empirical Formula** |
|  |  |
| **Molecular Formula** |
|  |
| **Exhibit #3** | **Location** | **Description** | **Sample Size** | **Element Data** | **Molar Mass** |
|  |  |  |  |  |
| **Empirical and Molecular Calculation Work** | **Empirical Formula** |
|  |  |
| **Molecular Formula** |
|  |
| **Exhibit #4** | **Location** | **Description** | **Sample Size** | **Element Data** | **Molar Mass** |
|  |  |  |  |  |
| **Empirical and Molecular Calculation Work** | **Empirical Formula** |
|  |  |
| **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. 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):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.