NS2232 – Introduction to Forensic Science
Lab Analysis of Fiber

Background Information
On Saturday morning a woman’s body is found in a stairwell of a downtown apartment building. The woman, who was a resident of the building, had been robbed and badly beaten. Crime scene investigators recover seven different types of fibers from the victim’s body. Six of these fibers match fabrics in the victim’s home. The seventh fiber, a white one, does not match anything belonging to the victim. Neighbors tell the investigating team that the victim hated the color white, and probably did not own anything that color.

When questioned by police, the women’s next door neighbors reveal that they saw a tall, young man in an all white jacket enter the victim’s apartment on Friday night. The night watchman had reports that no one had walked into the building wearing a white jacket on the night of the murder. Therefore, the police assume that the murderer lives in the apartment building.

Police begin questioning all of the tall, young men in the apartment building who own a white coat. These men are now considered to be suspects.

Dave Zoomer
Casey Ratz
Ted Sleeve
George Goker
Jeff Hoot

Your task, as the forensic scientist assigned to the case, is to determine what type of fiber each suspect is wearing, what the unknown fiber is, and who the unknown fiber belongs to.

Using the known fiber samples, create a database. Examine each fiber under the light microscope, hold the fiber near flame, and examine the reaction when exposed to each of the three solvents. Record your results in data sheet 1.
Once you have created your database of the known fibers, perform the same tests on the fibers from each suspect and record the data into *data sheet 2*.

Comparing the suspect fibers to database of information you already compiled for the known fibers, identify each of the suspect fibers.

Lastly, you will need to determine what the unknown fiber is and therefore you will be able to tie the unknown fiber to a suspect!