**The Case of the Deadly Picnic: A deductive reasoning exercise**

Centerville police discovered the body of a 36 year old white male (later identified as Gaven Brooks) in a field about twenty miles north of town. Mr. Brooks’s body was discovered at 7:30 pm on Friday, October 11th. He was found lying face up on a yellow, queen-size sheet. According to autopsy reports, one fatal gunshot to the back of the head ended Mr. Brooks’s life. Scientists estimate that death occurred at about 4:20 pm. As investigators scanned the crime scene, they made the following notes:

* Paper plates filled with partially eaten fried chicken, deviled eggs, potato salad, and chocolate cake were located near Mr. Brooks’s body.
* An open bottle of red wine and two partially filled glasses of wine were found next to the yellow sheet.
* A recently smoked cigarette butt was found near the sheet.
* Shoeprints from the road to the field were those of a male, size 10, and a female, size 5.
* Car tracks of the same wheelbase and tread pattern as Mr. Brooks’s automobile were found at the road. The car was not found at the scene.
* Mr. Brooks’s car was found abandoned in an empty parking lot downtown Centerville.

Investigators believe that a female friend of Mr. Brooks is responsible for his demise. After questioning family and friends, it was discovered that the deceased had frequent social outings with six women who live in or near Centerville. The women’s names are Rita, Lauren, Gail, Janice, Elaine, and Peggy. Investigators gathered the following information about the six women.

* Janice works full time as a caterer.
* Elaine and Gail are school teachers.
* Rita’s babysitter says Rita arrive home in her own car at about 5 pm.
* Peggy and Elaine live together in a two-bedroom apartment in downtown Centerville.
* Gail lives in a nearby town called Jordan.
* Eleaine and Janice are very petite women – they wear size 4 blue jeans.
* Gail and Peggy are smokers.
* Rita’s father owns a gun shop.
* Elaine attends a 5 pm step aerobics class in downtown Centerville every Friday afternoon and has not missed a class in two years.
* Peggy is deathly allergic to grapes.
* Lauren works at a chemical supply house.
* Rita lives in a country house about thirty miles west of Centerville.
* Gail is a vegan (she eats no animal products).
* Rita is a florist.
* Janice doesn’t know how to drive.
* Elaine and Gail hate the color yellow.
* Lauren played center for a semi-professional basketball team five years ago. She has red hair and is six feet, one inch tall.

Based on the preceding information, determine who murdered Mr. Brooks and the general facts of the case.