

I first saw these problems in a paperback puzzle book in the 70's. The oldest version I can find cites a book by Copi from the 1960's, but I doubt that is the original source – from the wording of the problems it seems likely that they are at least 40 years older than that. They must be good problems because they usually appear together with only trivial alterations. I have tried to give you the problems in their most original formulations. (For solutions, usually bad ones, you can just Google the text, but where is the fun in that?)

1. Benno Torelli, genial host of Jamtrack's most exclusive supper club, was shot and killed by a racketeer because he fell behind in his protection payments.

When questioned by the police, each of the men made three statements, two true and one false.

Lefty: "I did not kill Torelli. I never owned a revolver. Spike did it."

Red: "I did not kill Torelli. I never owned a revolver. The other guys are all passing the buck."

Dopey: "I am innocent. I never saw Butch before. Spike is guilty."

Spike: "I am innocent. Butch is the guilty man. Lefty lied when he said I did it."

Butch: "I did not kill Torelli. Red is the guilty man. Dopey and I are old pals."

2. Daniel Kilrane was killed on a lonely road, two miles from Pontiac, at 3:30am, March 17, 2001. Otto, Curly, Slim, Mickey, and The Kid were arrested a week later in Detroit and questioned.

Each of the five made four statements, three of which were true, and one of which was false.

One of these men killed Kilrane. Whodunit? The statements were:

Otto: "I was in Chicago when Kilrane was murdered. I never killed anyone. The Kid is the guilty man. Mickey and I are pals."

Curly: "I did not kill Kilrane. I never owned a revolver in my life. The Kid knows me. I was in Detroit the night of March 17."

Slim: "Curly lied when he said he never owned a revolver. The murder was committed on St. Patrick's day. Otto was in Chicago at this time. One of us is guilty."

Mickey: "I did not kill Kilrane. The Kid has never been in Pontiac. I never saw Otto before. Curly was in Detroit with me on the night of March 17."

The Kid: "I did not kill Kilrane. I have never been in Pontiac. I never saw Curly before. Otto lied when he said I am guilty."

3. The employees of a small loan company are Mr. Black, Mr. White, Mrs. Coffee, Miss Ambrose, Mr. Kelly, and Miss Earnshaw. The positions they occupy are manager, assistant manager, cashier, stenographer, teller, and clerk, though not necessarily in that order.

The assistant manager is the manager's grandson, the cashier is the stenographer's son-in-law, Mr. Black is a bachelor, Mr. White is twenty-two years old, Miss Ambrose is the teller's stepsister, and Mr. Kelly is the manager's neighbor.

Who holds each position?

4. On a certain train, the crew consists of the brakeman, the fireman, and the engineer. Their names, listed alphabetically, are Jones, Robinson, and Smith.

On the train are also three passengers with corresponding names, Mr. Jones, Mr. Robinson, and Mr. Smith.

The following facts are known:

- a. Mr. Robinson lives in Detroit.
- b. The brakeman lives halfway between Detroit and Chicago.
- c. Mr. Jones earns exactly \$40,000 a year.
- d. Smith once beat the fireman at billiards.
- e. The brakeman's next-door neighbor, one of the three passengers mentioned, earns exactly three times as much as the brakeman.
- f. The passenger living in Chicago has the same name as the brakeman.

What is the engineer's name?

5. A voyager found himself on a remote island on which there are two tribes, the Tunguy, who always tell the truth, and the Funguy, who always lie.

The voyager met three natives and asked the first of them, "Are you a Funguy?" The first native answered the question, but the voyager didn't quite catch the answer. The second native then said that the first native had denied being a Funguy and the third native added that the first native is a Funguy.

How many of these three natives were Funguys?

6. Mr. Short, his sister, his son, and his daughter are fond of golf and often play together. The following statements are true of their foursome:

- a. The best player's twin and the worst player are of the opposite sex.
- b. The best player and the worst player are the same age.

Which one of the foursome is the best player?

7. You have 9 coins, eight of which are pure gold and one of which is counterfeit. Determine the counterfeit coin by using only two applications of a pan balance.

8. You have a room whose four walls, ceiling and floor are all flat trapezoids. At the centroid of each trapezoid is a nail. Consider the set A of distances between the nails. Let $\beta \notin A$. Show that there are either 3 nails, all of whose distances are larger than β , or, if not, there are three nails all of whose distances are less than β .