
Problem of the Week

Solution Four

The Jabberwock lies on Mondays, Tuesdays and Wednesdays, and tells the truth on the other days of the week. Kojak, for his part, lies on Thursdays, Fridays and Saturdays, and tells the truth on the other days. With that set-up we are ready to state the problem.

While out for a walk, you meet a pair of identical twins named Lestrade and Merrivale. You happen to know that one of them is like the Jabberwock with regard to his habits in lying and truth-telling, while the other takes after Kojak. They engage in the following dialogue:

First Twin: Today is not Sunday.

Second Twin: In fact, today is Monday.

First Twin: Tomorrow is one of the Lestrade's lying days.

Second Twin: The Jabberwock lied yesterday.

You must answer each of the following three questions: (1) What day of the week is it? (2) Which of the twins is Lestrade? (3) Does Lestrade take after the Jabberwock, or does he take after Kojak?

SOLUTION: (1) Today is Friday. (2) The second twin is Lestrade. (3) Lestrade takes after Kojak.

The first thing to note is that both of the twins tell the truth on Sunday. Thus, if it actually was Sunday, neither twin would dishonestly claim otherwise. Therefore, today is not Sunday. It follows that the first twin is telling the truth and, since Sunday is the only day on which both twins tell the truth, the second one is lying. Since the second one claims today is Monday, we conclude that actually today is not Monday.

The second twin was also lying when he claimed that the Jabberwock lied yesterday. It follows that yesterday was one of the Jabberwock's truth-telling days, meaning that yesterday was either Thursday, Friday, Saturday or Sunday. That implies that today is either Friday, Saturday, Sunday or Monday. Since we already know it is neither Sunday nor Monday, we conclude that today is either Friday or Saturday.

The next observation is that tomorrow is one of Lestrade's lying days, since the first twin asserted that and we know he is telling the truth. That means that tomorrow cannot be Sunday, since both of the twins tell the truth on Sunday. That means that today cannot be Saturday. We conclude, therefore, that today is Friday.

We now know that Saturday is one of Lestrade's lying days. That means he takes after Kojak. We also know the first one is telling the truth today, Friday, meaning that he must take after the Jabberwock. That makes the first twin Merrivale and the second twin Lestrade.