

Homework 4 Logic Puzzle

During the lunch hour at school, a group of five boys from Miss Jones home room visited a nearby lunch wagon. One of the five boys took a Mars bar without paying for it. When the boys were questioned by the school principal, they made the following statements in respective order:

1. Rex: "Neither Earl nor I did it."
2. Jack: "It was Rex or Peter."
3. Peter: "Both Rex and Jack are lying."
4. Dan: "Peter's statement is not true; one of them is lying and the other is speaking the truth."
5. Earl: "What Dan said is wrong."

When Miss Jones was consulted, she said, "Three of these boys are always truthful, but everything that two of them say will be a lie." Assuming that Miss Jones is correct, **who took the Mars bar?**

Use prover9 to solve the puzzle.

Submit a report with three parts:

1. Assumptions and goal
2. The input and output of prover9. The input of prover9 should be in plain text.
3. Conclusion