

Hey, there's a question for you...

*You're on an island with natives from three different tribes. One tribe always tells the truth, one always lies, and one always gives random answers. You get to ask three yes-or-no questions, each one directed to the native of your choice. Then you have to identify which native is which. How do you do it?*

Scratching your head already? How about another one...

*"I am your long-lost sister," says Amy to the man, who indeed has one (but only one) missing sibling. "She's lying - I'M your long-lost sister," Barbara insists at the family reunion. "At least two of us always lie," smirks a third woman, Carol. Which one is the man's sister?*

Curious about the answers? You're gonna learn how to solve such puzzles in this course CSC106 ... and a lot more... like, *how to use logic and reasoning* to solve such puzzles... He he... so now you know this course is gonna be a lot of fun ..!

Want to continue with more stuff?

*Professor Charles Blabbe, England's top expert on Artificial Intelligence, finally completed his construction of ORACLE, and acronym for Omniscient Rational Advance Computer of Local Events. The computer was so powerful that it could (Blabbe maintained) predict with 100% accuracy any event in the laboratory within the period of one hour and inside the radius of 20 meters from the computer's console.*

*This is how it operated. One could describe to ORACLE any event that would or would not occur during the next hour within the specified radius. If the computer predicted that the event would take place it turned on a green light for "yes". If it predicted the event would not take place, it turned on a red light for "no".*

*It was necessary, Professor Blabbe made clear, that the two lights be concealed until the hour was up. Otherwise anyone could easily render a prediction wrong by doing something to falsify it. For example, suppose the computer predicted "yes" to: "A lizard will crawl across the north wall of the lab." If someone saw the green light, he could stand guard by the wall to make sure that the event did not occur.*

*Mr Lee recently joined Blabbe's group to pursue his higher studies. Mr. Lee was a bright young SCE, NTU graduate, with A grades in CSC106, and CSC412: Formal Languages, Automata and Computability. In the day before Blabbe was to demonstrate ORACLE's powers to the group of distinguished computer scientists and engineers, military moguls, and government officials. Mr. Lee approached him and said:*

*"I regret to tell you this, Professor, but I've just proved that ORACLE can't possibly succeed in all cases. I can describe an event that will or will not take place in the lab, within the hour and inside the twenty-*

*meter radius, which the ORACLE will find it logically impossible to predict whether it will or won't happen."*

*Blabbage refused to believe Mr. Lee until Mr. Lee told him what the event was. Lee's remarks were so shattering that Professor Blabbage collapsed in a faint and had to be taken to the Hospital.*

*What event did Mr. Lee tell to Professor Blabbage?*

Want to be Mr. Lee? Want to learn principles for avoiding bugs in the softwares, like crashing windows and hanging programs? .. Opt for CSC412/SC446: Formal Languages, Automata, and Computability, and you can learn such a stuff with a a lot of fun. Not convinced? -- take a look at past question paper for CSC412/SC446 when it was offered during Jan.-Apr. 2004 semester (Sem 2 of acd. Yr. 2003-04).