



Chapel Hill Math Circle

Beginners' Group

In the Land of Logic', Part 2

October 15, 2016

A very special island is inhabited only by knights and knaves. Knights always tell the truth and knaves always lie. You meet two inhabitants and they make certain statements. Can you determine what they are?

1. Zoey: Mel is a knave.
Mel: Neither Zoey nor I are knaves.

2. Peggy: Between Zippy and me, exactly one is a knight.
Zippy: Only a knave would say that Peggy is a knave.

3. Sue: Zippy is a knave.
Zippy: Sue and I are knights.

4. Sally: Zippy and I are not the same.
Zippy: Between Sally and me, exactly one is a knight.

5. Homer: I am a knight or that Bozo is a knight.
Bozo: Homer could say that I am a knave.

6. Marge: Zoey and I are both knights or both knaves.
Zoey: Marge and I are the same.

7. Mel: Either Ted is a knight or I am a knight.
Ted: Mel is a knave.

8. Zed: I am a knight or Alice is a knave.
Alice: Between Zed and me, exactly one is a knight.

9. Ted: Zeke could say that I am a knave.
Zeke: It's not the case that Ted is a knave.

10. Ted: Between Zippy and me, exactly one is a knight.
Zippy: Ted is a knave.