

Chapel Hill Math Circle  
Beginners Group (1-3)  
February 13, 2016

1. 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?

Ted: Zeke could say that I am a knave.

Zeke: It's not the case that Ted is a knave.

2. Do you know what even and odd numbers are?
  - a. What happens when you add two even numbers?
  - b. What happens when you add two odd numbers?
  - c. What happens you add an even and an odd numbers?

3. There are five cards on a table.



Each card has a natural number on one side and a letter on the other. James states, "Any card with a vowel on one side has an even number on the other." Tony only turned one card to show that James was wrong. Which card did Tony turn? Why does that work?