

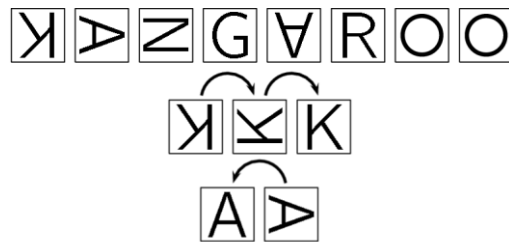
Chapel Hill Math Circle
 Beginners Group (1-3)
 February 20, 2016

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?

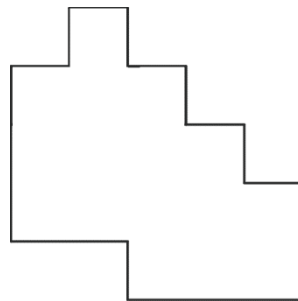
Marge: Zoey and I are both knights or both knaves.

Zoey: Marge and I are the same.

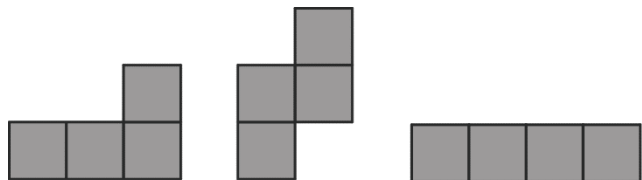
2. Amy spelled the word KANGAROO with the cards shown below. Unfortunately, some cards turned. Amy can fix the letter K by turning it twice and the letter A by turning it once, as shown below. What is the minimum number of turns she must make to fix all the letters? Why are you sure?



3. Drew is trying to cover the shape below with four tetrominoes.



He has already placed



Where should he place

