Why does the ugly green chicken cross state lines?
professor of mathematics at Williams College, with the Green Chicken trophy, which has resided at the school since 2003.
Divide and conquer, and get the chicken

An ugly wedding gift has turned into a college rivalry's symbol of math supremacy

Could you compete for the Green Chicken?

1. A college dormitory has 250 students. For every pair of students, A and B, there is a language that A speaks but B does not, and a language that B speaks that A does not. What is the smallest total number of languages that could be known by the students?

2. You have 1,000 coins in a row, numbered 1 through 1,000, all heads up. On Day 1, you turn over every coin numbered with an even number. On Day 2, you turn over every coin beginning with coin 2, etc. You continue in this manner until Day 1,000, when you get turn over coin 1,000. After Day 1,000, which coins are up?

3. It is possible to put Chicken McNuggets in boxes of 6, 9, and 20. What is the smallest integer N such that for any N, it is possible to order exactly 1 McNugget by choosing an appropriate number of boxes of 6, 9, and 20 (i.e., what is the largest integer N that cannot be ordered exactly)?

4. Mr. and Mrs. Garcia have four cats and four dogs to drive to the vet. All the cats are on the left side of the street, and all the dogs are on the right side. Each can only be driven by one person at a time. How many ways can they travel to the vet?