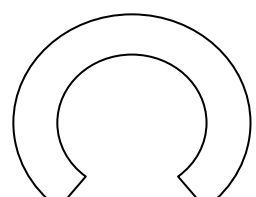
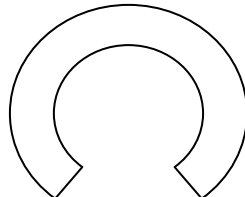
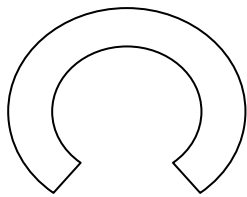
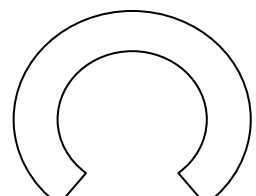
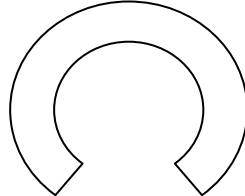
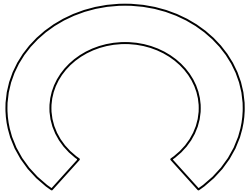


Prime Factor Math Circle 2011-2012

Elementary School Circle, Grades 3-4. Problem Set 1

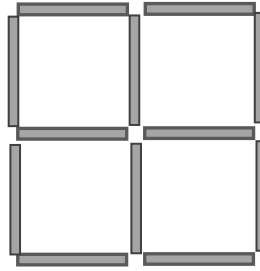
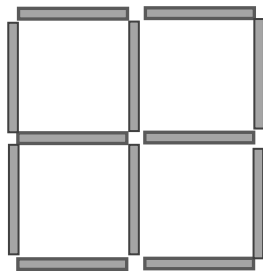
1. Cut this horseshoe-shaped cake into several parts with two straight cut of the knife. How many parts can you get?



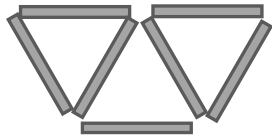
2.

- a. Remove 4 matches in such a way as to leave 2 squares.
b. Remove 5 matches in such a way as to leave 2 squares.

c



3. Relocate 2 matches in such a way as to get 2 triangles. (Do dangling matches, no extra matches, no matches placed on top of one another)



Prime Factor Math Circle 2011-2012

4. There are eight rabbits in the cells of the table. Relocate several rabbits from one cell to another so that there will be exactly two rabbits in any row and in any column of the table. What is the least number of rabbits that need to be moved?

