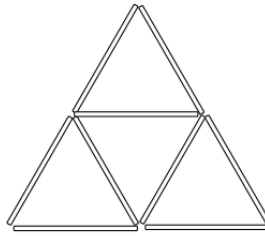


Mathletes Problem of the Week #10

Take a Toothpick



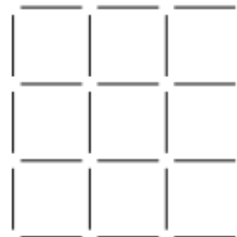
The figure above is made out of 9 toothpicks. Try the following triangle challenges:

- Remove exactly four of the toothpicks to leave two equilateral triangles.
- Remove exactly three of the toothpicks to leave two equilateral triangles.
- Remove exactly two of the toothpicks to leave two equilateral triangles.

(Source: University of Washington Math Circle)

Now you're ready for the squares!

- Remove exactly six toothpicks from the rectangle on the left to leave only two squares.
- Remove exactly eight toothpicks from the square figure on the right to leave only three squares.



(Source: San Francisco Math Circle)

Solutions & Explanations: (Try one or try them all. Draw your solutions and explain your thinking here and on the back!)

Name _____ Class _____

(First and last name, please!)

Solutions due: February 7th