

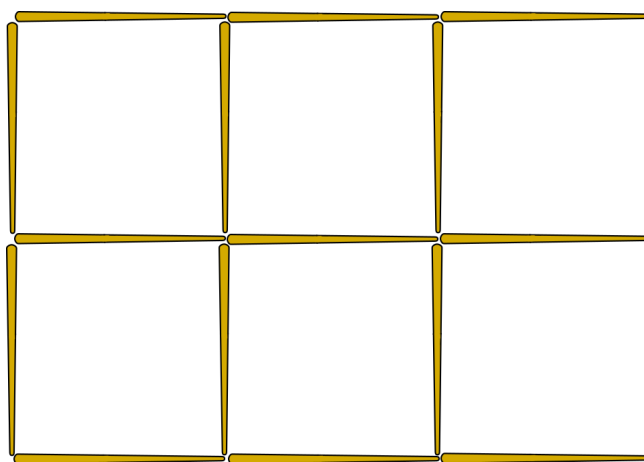


## Problem of the Week

### Problem B

#### Toothpicks for Squares

The diagram below is constructed from 17 toothpicks, creating a total of eight squares. Note that some of these are smaller squares of dimension 1 toothpick by 1 toothpick and some are larger squares of dimension 2 toothpicks by 2 toothpicks.



Start with the original diagram in each part below.

- (a) Remove five toothpicks so that a total of five squares remain.
- (b) Remove five toothpicks so that a total of three squares remain.
- (c) Remove three toothpicks so that a total of two squares remain.
- (d) Remove six toothpicks so that a total of two squares remain.

Compare your answers to those of a classmate. Are they the same? Can you complete each part without leaving extra toothpicks that do not belong to a square?