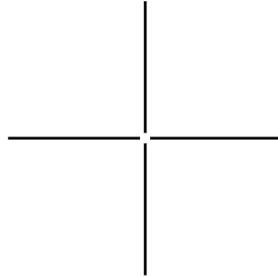


## Three Variations on the G4G10 Theme

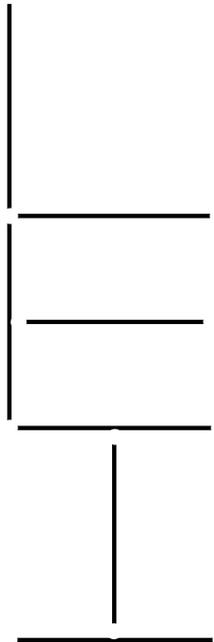
Anany Levitin

The puzzles below are motivated by the conference theme, which is 10 (of course) and/or X (numeral and variable). Solutions can be found on the back of this page.

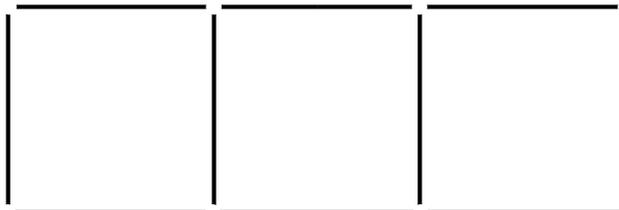
1. Find at least two different ways to read the conference theme in the toothpick configuration below without moving any of the toothpicks:



2. Get the conference theme by moving one toothpick in the configuration below:

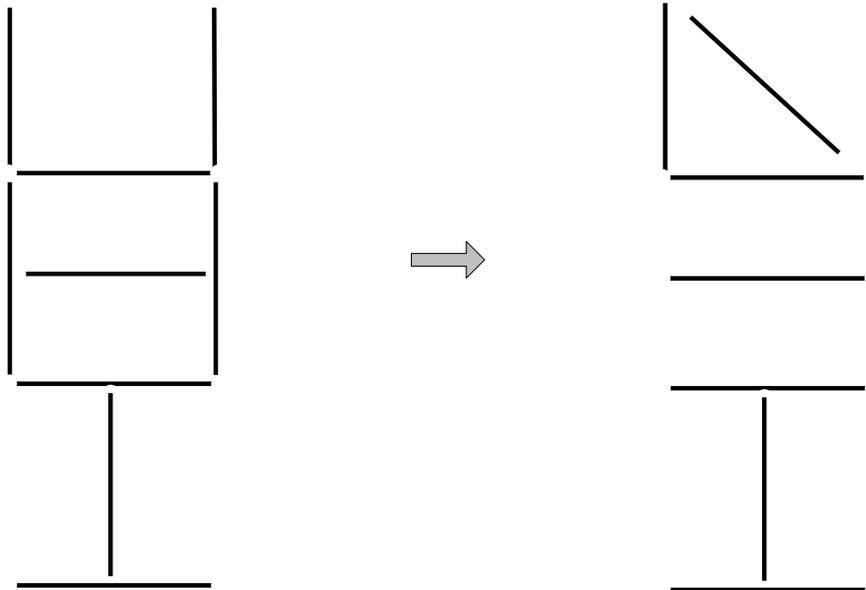


3. Get the conference theme by moving two toothpicks in the configuration below:



## Solutions to the Three Variations on the G4G10 Theme Puzzles

1. The first solution can be obtained by turning the page 45 degrees or 135 degrees to get X. The second, and qualitatively different, solution is to read + in Chinese (see [http://en.wikipedia.org/wiki/Chinese\\_numerals](http://en.wikipedia.org/wiki/Chinese_numerals)).
2. Read "TEN" bottom up after moving one toothpick as shown below:



3. Since decimal 10 is 1010 in binary, one can solve the puzzle by moving the two middle toothpicks to get the desired configuration as shown below:

