From Jeff Liese:

How many ways can you arrange the number 1, 2, 3, ..., 2011 so that each number after the first is within one of a number somewhere to its left? [For example, if 17 is the 2nd number then the first must be 16 or 18.]

Solutions should be submitted to Morgan Sherman:

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before next Friday. Those with correct and complete solutions will have their names listed on the puzzle’s web site (see below) as well as in next week’s email announcement. Anybody is welcome to make a submission.

http://www.calpoly.edu/~sherman1/puzzleoftheweek

Solution: The number of arrangements is $2^{2010}$.

I am going to plagiarize Lawrence Sze’s solution, which I thought was especially nice (and I had not seen before): Given such an arrangement every term after the first is either one Above or one Below the range of numbers to its left, but not both as can be seen by reading from left to right. Thus each legal arrangement corresponds to a sequence of 2010 As and Bs. Moreover every such sequence corresponds to a legal arrangement by taking the first term to be 1+ the number of Bs, then filling in the remaining terms appropriately according to their letter.