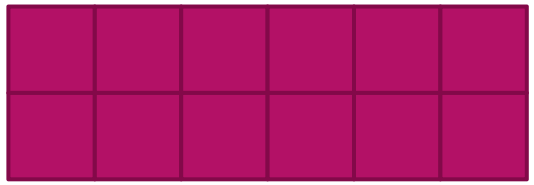
Practice 1 – Recursion

Recursion Practice:

1. Trace the computation for the tower of Hanoi like P.3 in <Recursion.pdf>

2. Find the number of ways a 2*n rectangle can be tiled with rectangular tiles of size 2*1

2*1



2*6

Practice (Optional):

3. Enter a string and print out all permutations of the characters in the string.(0.1 points)
Example:
Input: abc
Output: abc, acb, bac, bca, cab, cba

4. Enter a string and print out all combinations of the characters in the string.(0.1 points)
Example:
Input: abc
Output: a, b, c, ab, bc, ac, abc

The practice will be checked in this lab class or the next lab class(before **Mar.2**) by teachers or SAs.
Question 3 and 4 are optional, just describe ideas, don’ t have to write code.

This practice will contribute **1 mark** to your overall grade. Late submissions within 2 weeks after the deadline (Mar.2)will incur a 20% penalty, meaning that you can only get 80% of the score.