

## Tower of Hanoi

Tower of Hanoi is a mathematical puzzle where we have three rods and  $n$  disks. The objective of the puzzle is to move all disks from source rod to destination rod using third rod (say auxiliary).

The rules are:

- 1) Only one disk can be moved at a time.
- 2) A disk can be moved only if it is on the top of a rod.
- 3) No disk can be placed on the top of a smaller disk.

**Input format:**

Integer  $n$

**Output Format:**

Steps in different lines (in one line print source and destination rod name separated by space)

**Sample Input:**

2

**Sample Output:**

a b  
a c  
b c