## **A variation on anagrams**

Let's assume you were recently hired by a Start-up. On the first day, you meet the CEO and are given an assignment. Your CEO has decided that all products will be named according to the following pattern.

Your CEO calls the pattern “P@tter”. Two product names obey P@tter if they are permutations of each other, ignoring spaces and capitalization.

Your task is to determine whether two product names obey P@tter.

Input description/format

The input will consist of two product names per line, in quotation marks, which are not part of the names. The quoted names will be separated by a comma and potentially whitespace.  
You can assume that there will be ≤ 1000 lines in the input file. Also, product name length will be ≤ 255 characters and product names will contain only ASCII characters.

Output description/format

For each line of input, output the result in one of the following 2 ways (case sensitive):

* Valid Pattern
* Invalid Pattern

Example input

"Calculate", "Acute Call"

"Drop Cue" , "Cued Pro"

"carE Not", "raCe On"

Example output

Valid Pattern

Valid Pattern

Invalid Pattern

Practice

"One-Microsoft", "one-Microsoft"

"Aaagmnrs", "anagrams"

"Substitute Focal Awe", "Associate But Flu Wet"

"System" , "System"

"are" , "are"

"composed" , "mostly"

"mostly" , "of"

"the" , "collective"

"collective" , "collective"

"name" , "name"

"for" , "for"

"compounds" , "with"

"Facetious But Law Set", "Facetious But Let Saw"

"Fluctuate Eta Sib Sow ", " Fluctuate Oat Sew Sib "

") Waistcoat But Elf Sue ", ") Waistcoat But Elf Use "

"The" , "objects"

"objects" , "of"

"of" , "the"

"the" , "inner"

"inner" , "Solar"

"Solar" , "Solar"

"TopCoder", "Drop Cote"

"SnapDragon vs tomek", "savants groped monk"

"savants groped monk", "Adam vents prongs ok"

"patched hers first", "DEPTH FIRST SEARCH"

"Radar ghost jilts Kim", "DIJKSTRAS ALGORITHM"

"care", "race"

"care", "raced"

"carE", "raCe"

"care", "RACE"

"zxcvbnm lkjhgfdsa qwertyuiop","POIUYTrewqasdfghjklmnbvcxz"

"f", "g"

"f","F"

"ddd", "dd"

"with" , "with"

"Saturn" , "are"

"are" , "are"

"composed" , "composed"

"mainly" , "mainly"

"of" , "gases"

"the" , "astronomical"

"and" , "and"

"high" , "vapour"

"vapour" , "vapour"

"such" , "such"

"as" , "molecular"

"molecular" , "molecular"

"and" , "and"

"which" , "which"

"were" , "were"

"always" , "in"

"in" , "the"

"the" , "the"

"gaseous" , "phase"

"phase" , "phase"

"in" , "in"

"the" , "the"

"nebula.[29]" , "Ices"

"like" , "like"

"hydrogen" , "sulfide"

"sulfide" , "and"