

Boss Attack

Problem B

Please write a program to read a program source following the token definition and grammar rule at right, with stdin be the input.

Your program has to check the source if it follow the token and grammar rules. If yes, please print the tokens' type and themselves. If not, print "invalid input"

Terminal	Regular Expression	1. Proc → Dcl Stmt \$
level	$[0-9]^+$	2. Dcl → level Id
firstName	$[A-Z][a-z]^*$	3. Id → cid
lastName	$[a c-z]^+$	4. firstName lastName
cid	$[0-9]^+$	5. Stmt → battle Id
battle	b	

Sample Input 1

l100 Malfurion stormrage b Jaina proudmoore

Sample Output 1

level l100
firstName Malfurion
lastName stormrage
battle b
firstName Jaina
lastName proudmoore

Sample Input 2

E04 999 b 2222

Sample Output 2

invalid input

Sample Input 3

l99 Godteam fivesix b 9527

Sample Output 3

level l99
firstName Godteam
lastName fivesix
battle b
cid 9527