#include <stdio.h>

#include <string.h>

#define MAX 10

char prod[MAX][MAX], alpha[MAX], beta[MAX], newProd[MAX][MAX];

int n;

void removeLeftRecursion()

{

for (int i = 0; i < n; i++)

{

char nt = prod[i][0];

if (nt == prod[i][2])

{

strcpy(alpha, &prod[i][3]);

printf("%c -> %s%c'\n", nt, beta, nt);

printf("%c' -> %s%c' | e\n", nt, alpha, nt);

} else {

strcpy(beta, &prod[i][2]);

printf("%s\n", prod[i]);

}

}

}

int main() {

printf("Enter number of productions: ");

scanf("%d", &n);

printf("Enter productions (e.g., A=Abc or A=a):\n");

for (int i = 0; i < n; i++)

scanf("%s", prod[i]);

printf("\nAfter eliminating left recursion:\n");

removeLeftRecursion();

return 0;

}