| C | **Equivalence**
Input: Standard Input
Output: Standard Output | |

In preparation for their advanced mathematics paper, Alice and Bob are attempting to solve problems whose answers are supposed to be complicated formulas. Their answers may appear to be different even though they are both correct.

Your task is to write a program to read different formulas and determine whether or not they are arithmetically equivalent.

Input

The input starts with an integer T ($1 \leq T \leq 20$), on a line by itself, that indicates the number of cases. Each case consists of two arithmetic expressions, each one a separate line with at most 80 characters. An expression contains one or more of the following:

- Single letter variables (case insensitive).
- Single digit numbers.
- Matched left and right parentheses.
- Binary operators +, - and * which are used for addition, subtraction and multiplication, respectively.
- Arbitrary number of blank or tab characters between above tokens.

Expressions are syntactically correct and evaluated from left to right with equal precedence (priority) for all operators. The coefficients and exponents of the variables are integers.

Output

For each case the output consists of one line that contains "YES" if the two input formulas are arithmetically equivalent, otherwise it contains "NO".

Sample Input	Output for the Sample Input
2 a*2-(a+c)+((a+c+e)*2) 3*a+c+(2*e) (a-b)*(a-b) (a*a)-(2*a*b)-(b*b)	YES NO