

Problem Statement:

Given two algebraic expressions, your goal is to find if the expressions are equivalent.

Note:

- 1) Expressions will only contain operations such as '+', '-', '*', '/', '^' along with variables (only 'x' and 'y') and numbers.
- 2) Constants in the expressions should always be evaluated (Eg. "4x + 3 - 2" has to be converted into "4x + 1").
- 3) Please use C++
- 4) Each test case carries 1 point. Apart from these there are 20 other hidden test cases of similar nature. We will also look into your code.

Submission Format:

Input Format: expression1 expression2 (separated by single space)

Input File Type: .txt

Output Format: For any given input file, print either 'True' or 'False' in the corresponding line in a new text file.

Note: Please print your **mail id** and **name** as the first line in the output text file. Output file should be generated dynamically (The output file will be generated in our end so include the details in the source code itself)

Example test cases:

TestCase 1:

Input:

4x+1 1+4x

Output:

True

TestCase 2:

Input:

(5x+4)/(3+2y) (4+5x)/(2y+3)

Output:

True

TestCase 3:

Input:

$$(5x+3-9)/(3+2x) (-6+5x)/(2x+3)$$

Output:

True

TestCase 4:

Input:

$$(5x+3-9)/(3+2y) (4-10+5x)/(2y+3)$$

Output:

True

TestCase 5:

Input:

$$(5x+4)*3x \quad 15x^2+12x$$

Output:

True