Problem I
Twenty Four, Again

Yes, we know . . . we've used Challenge 24 before for contest problems. In case you've never heard of Challenge 24 (or have a very short memory) the object of the game is to take 4 given numbers (the *base values*) and determine if there is a way to produce the value 24 from them using the four basic arithmetic operations (and parentheses if needed). For example, given the four base values `3 5 5 2`, you can produce 24 in many ways. Two of them are: `5*5-3+2` and `(3+5)*(5-2)`. Recall that multiplication and division have precedence over addition and subtraction, and that equal-precedence operators are evaluated left-to-right.

This is all very familiar to most of you, but what you probably don't know is that you can *grade* the quality of the expressions used to produce 24. In fact, we're sure you don't know this since we've just made it up. Here's how it works: A perfect grade for an expression is 0. Each use of parentheses adds one point to the grade. Furthermore, each inversion (that is, a swap of two adjacent values) of the original ordering of the four base values adds two points. The first expression above has a grade of 4, since two inversions are used to move the 3 to the third position. The second expression has a better grade of 2 since it uses no inversions but two sets of parentheses. As a further example, the initial set of four base values `3 6 2 3` could produce an expression of grade 3 — namely `(3+6+3)*2` — but it also has a perfect grade 0 expression — namely `3*6+2*3`. Needless to say, the lower the grade the "better" the expression.

Two additional rules we'll use: 1) you cannot use unary minus in any expression, so you can't take the base values `3 5 5 2` and produce the expression `-3+5*5+2`, and 2) division can only be used if the result is an integer, so you can't take the base values `2 3 4 9` and produce the expression `2/3*4*9`.

Given a sequence of base values, determine the lowest graded expression resulting in the value 24. And by the way, the initial set of base values `3 5 5 2` has a grade 1 expression — can you find it?

Input

Input consists of a single line containing 4 base values. All base values are between 1 and 100, inclusive.

Output

Display the lowest grade possible using the sequence of base values. If it is not possible to produce 24, display `impossible`.

Sample Input 1	Sample Output 1
`3 5 5 2`	`1`

Sample Input 2	Sample Output 2
`1 1 1 1`	`impossible`

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