

LOL Lovers

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It is easy to see that if the total number of loaves is not two and the first or the last letter is 'L', you can cut this single letter from the rest of the string, and this division satisfies all requirements. The same goes for the case when the total number of onions is not two and the first or the last letter is 'O'. The only cases not solvable by cutting the first or the last letters are: 'LO...OL', 'OL...LO', 'LOLO', 'OLOL', 'OOLL' and 'LLOO' but it is easy to see that only the last two of them are solvable at all. This gives the solution which works in $\mathcal{O}(n)$ time. However, since $n \leq 200$ in this problem, there are plenty of slower approaches which will still pass the tests, including iterating over all possible divisions and checking each in linear time.