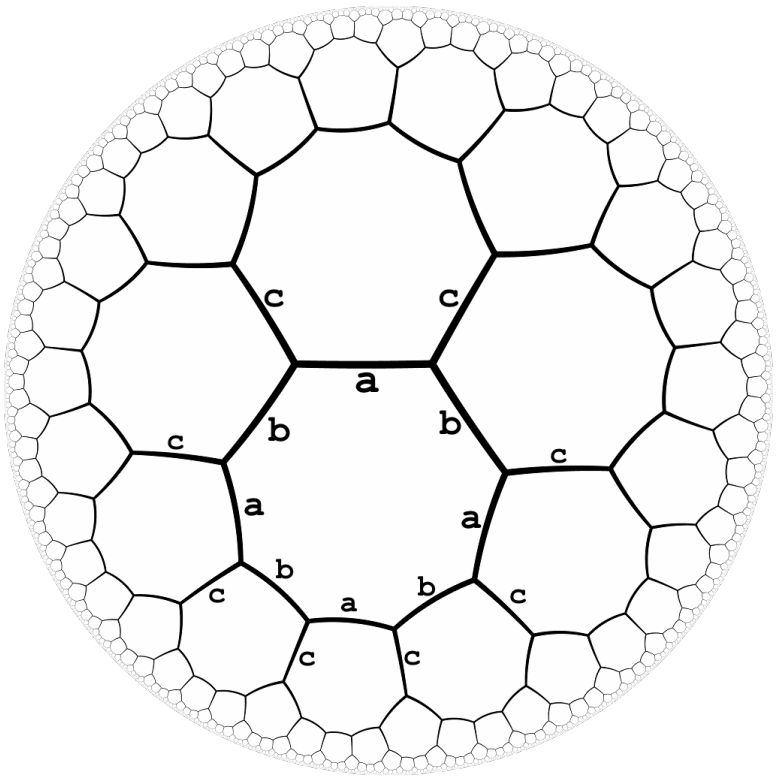
Problem D. Octagons

Input file:	*standard input*
Output file:	*standard output*
Time limit:	1 second
Memory limit:	256 mebibytes

Below is a picture of an infinite hyperbolic tessellation of octagons. If we think of this as a graph of vertices (of degree three), then there exists an isomorphism of the graph which maps any vertex x onto any other vertex y. Every edge is given a label from the set $\{\mathtt{a}, \mathtt{b}, \mathtt{c}\}$ in such a way that every vertex has all three types of edges incident on it, and the labels alternate around each octagon. Part of this labeling is illustrated in the diagram below.



So a path in this graph (starting from any vertex) can be specified by a sequence of edge labels. Your job is to write a program which, given a sequence of labels such as "`abcbcbcabcaccadb`", returns "`closed`" if the path ends on the same vertex where it starts, and returns "`open`" otherwise.

Input

The input is a string of length at least 1 and at most 100 000 consisting of letters "`a`", "`b`" and "`c`".

Output

The output should be one line with one word: either "`closed`" or "`open`".

Examples

standard input	standard output
abababab	closed
abcbcbcbcba	open