Rotation

Write a program that inputs two strings continuously and:

- outputs each input string on a separate line.
- determines whether first one is a rotation of the other and outputs “true” or “false” relatively.
- says “bye.” and exits if the first string is “exit”.

Given two strings **s1** and **s2**, whether **s2** is a rotation of **s1** is defined as follows:
If we cut **s1** at an index *k* into two substrings as **s1a** and **s1b**, then we must be able to get **s2** by **s1b** + **s1a**.

Rotation examples:
“cdeab” is a rotation of “abcde”
“bcdea” is a rotation of “abcde”
“bcdae” is a **not** rotation of “abcde”

Hint: If the concatenation of s1 with itself contains s2 then s2 is a rotation of s1.

Example run: