Equivalent Arrays

Consider the two arrays a and b.



It is possible to transform array a into array b by <u>right shifting</u> each element of a to the "right" three places. If an element "falls off" the back of the array have it come around the front and keep counting positions. That is how 3 in array ended up in the first position of array b. One way to look at this is to imagine that we are moving the element around in a circular manner.

In the example above, we have right shifted the array 3 positions to the right.

Definition: Let a and b be two integer arrays of the same length. We say that they are "<u>shift</u> <u>equivalent</u>" if array a can be right shifted to create array b.

Problem

Write a function

bool equivalent(int a[], int b[], int n)

which takes two arrays a and b <u>of length n</u> and returns **true** is they are shift equivalent and **false** otherwise.