Practice Exercise #20: Set Containment

http://www.comp.nus.edu.sg/~cs1010/4_misc/practice.html

Reference: Week 5, Exercise #4

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Objective: Array

Task statement:

Given two arrays, **arrA** and **arrB**, of **int** values, where their sizes are **sizeA** and **sizeB** respectively, write a function

```
int isSubset(int arrA[], int sizeA, int arrB[], int sizeB)
```

to determine if the set **arrA** is a subset of the set **arrB**.

The function returns 1 if **arrA** is a subset of **arrB**, or 0 otherwise. You may assume there are no duplicate numbers in each array.

Example: If arrA[] = {14, 5, 1, 9} and arrB[] = {2, 9, 3, 14, 5, 6, 1},

- isSubset(arrA, 4, arrB, 7) returns 1
- isSubset(arrA, 4, arrB, 6) returns 0

To keep the program simple, the given skeleton program fixes sizeA to 4 and sizeB to 7, and tests out the above 2 cases. All test cases will set a 4-element array for **arrA** and a 7-element array for **arrB**.

You may keep the **main()** function intact and work only on the **isSubset()** function.

Sample run:

```
1st array:
Enter 4 values: 14 5 1 9
2nd array:
Enter 7 values: 2 9 3 14 5 6 1
arrayA[0..3] is a subset of arrayB[0..6]
arrayA[0..3] is not a subset of arrayB[0..5]
```