

AP CSA
Unit 6 Arrays
Practice Methods
20 Points Total

Complete the following static methods within the `ArraysHelper` class.

1. `public static int arrayToInt(int[] arr)` **(2pts)**

This method returns an `int` value based on the array `arr` passed by parameter.

<code>arr</code>	Returned by <code>arrayToInt(arr)</code>
<code>{1,2,3,4}</code>	1234
<code>{0,3,0,5}</code>	305
<code>{1,0}</code>	10

2. `public static int[] intToArray(int num)` **(2pts)**

This method returns an array of `ints` based on the `int` value passed by parameter.

<code>num</code>	Returned by <code>intToArray(num)</code>
1234	<code>{1,2,3,4}</code>
305	<code>{3,0,5}</code>
10	<code>{1,0}</code>
0	<code>{0}</code>

3. `public static int indexOfZero(int[] arr)` **(2pts)**

This method returns the first index of a zero occurring in the array `arr` or -1 if no zero exists.

<code>arr</code>	Returned by <code>indexOfZero(arr)</code>
<code>{1,2,3,4}</code>	-1
<code>{0,3,0,5}</code>	0
<code>{1,0}</code>	1

4. `public static int lastIndexOfZero(int[] arr)` **(2pts)**

This method returns the last index of a zero occurring in the array `arr` or -1 if no zero exists.

<code>arr</code>	Returned by <code>lastIndexOfZero(arr)</code>
<code>{1,2,3,4}</code>	-1
<code>{0,3,0,5}</code>	2
<code>{1,0}</code>	1

5. `public static void setZeros(int[] arr)` **(3pts)**
Using `indexOfZero` and `lastIndexOfZero`, this method modified `arr` to include zeros between the first and last occurrence of zero. The array `arr` remains unchanged if only one or no zeros exist.

arr	arr after the call to setZeros(arr)
{1,2,3,4}	{1,2,3,4}
{0,3,0,5}	{0,0,0,5}
{1,0}	{1,0}

6. `public static void reverseArray(int[] arr)` **(4pts)**
This method modifies array `arr` passed by parameter to be the reverse of itself.

arr	arr after the call to reverse Array(arr)
{1,2,3,4}	{4,3,2,1}
{0,3,0,5}	{5,0,3,0}
{1,0}	{0,1}
{0}	{0}

7. `public static int[] combineArrays(int[] arr1, int[] arr2)` **(5pts)**
This method merges `arr1` and `arr2` into a single array in alternating order. If `arr1` and `arr2` do not have the same amount of values, the extra values are just appended to the end of the array returned to by the method.

arr1	arr2	Returned by combineArrays(arr1, arr2)
{1,2,3,4}	{6,7,8,9}	{1,6,2,7,3,8,4,9}
{1,1,1,1}	{2,2}	{1,2,1,2,1,1}
{1,1}	{2,2,2,2}	{1,2,1,2,2,2}

Save your completed `ArraysHelper.java` file in a folder with your name on it. Compress and submit your folder via Google classroom.