

## AP Java Lab 2.1

Date: 11/07/17

### Procedures:

- Declaring and manipulating arrays
- Defining methods to work with array structures

### Class:

- **ArrayMethods**

### Methods:

- **public static int[ ] removeDuplicates(int [ ] list)**
- **public static int[][] productArray(int[] arr1, int[] arr2)**
- **public static int[ ][ ] pascalTriangle(int n)**
- **public static void printPascalTriangle(int[ ][ ] triangle)**

### Your Mission:

#### **public static int[ ] removeDuplicates(int[ ] list)**

Write a method that returns a new array by eliminating the duplicate values from the input array. Do not delete items from the original list.

#### **public static int[ ][ ] productArray(int[ ] arr1, int[ ] arr2)**

Write a method that accepts two arrays of identical size and returns a multidimensional array containing the product of each combination of elements. This is similar to building a multiplication table, but this time using arrays.

#### **public static int[ ][ ] pascalTriangle(int n)**

Write a method that takes an integer n, and returns a two-dimensional “jagged” array holding n-rows of Pascal’s triangle.

#### **public static void printPascalTriangle(int[ ][ ] pTriangle)**

Write a method that takes a two-dimensional array and prints it out. Format the printing so the triangle appears as below. (Example shows a triangle for n=6)

```
      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
 1 5 10 10 5 1
```