

**AP<sup>®</sup> Computer Science A**  
**Free-Response Canonical Solutions**

**Question 1: Word Scrambler**

**PART A:**

```
private String recombine(String word1, String word2)
{
    return word1.substring(0, word1.length() / 2) +
           word2.substring(word2.length() / 2);
}
```

**PART B:**

```
private String[] mixedWords(String[] words)
{
    String[] result = new String[words.length];

    for (int k = 0; k < result.length; k = k + 2)
    {
        result[k] = recombine(words[k], words[k + 1]);
        result[k + 1] = recombine (words[k + 1], words[k]);
    }

    return result;
}
```

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**Question 2: Mountain**

**PART A:**

```
public static int getPeakIndex(int[] array)
{
    for (int k = 1; k < array.length - 1; k++)
    {
        if (array[k - 1] < array[k] && array[k] > array[k + 1])
            return k;
    }
    return -1;
}
```

**PART B:**

```
public static boolean isMountain(int[] array)
{
    int peak = getPeakIndex(array);
    return (peak != -1) && isIncreasing(array, peak) &&
           isDecreasing(array, peak);
}
```