**4- Birthday Cake Candles**

**Recursive Algorithm Pseudo-code**

**function birthdaycakecandles(arr)**

**{**

**return helper(arr, 0, none, 0)**

**function helper(arr, i, current\_max, count)**

**{**

**if (i == length(arr)):**

**return count**

**if (current\_max == null or arr[i] > current\_max):**

**return helper(arr, i + 1, arr[i], 1)**

**else if (arr[i] == current\_max):**

**return helper(arr, i + 1, current\_max, count + 1)**

**else**

**return helper(arr, i + 1, current\_max, count)**

**}**

**}**

**Algorithm Analysis**

**Recurrence Relation:**

**Solving the Recurrence:**

**Result:**

**Best Case : Worst Case: Average Case:**