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**算法 1** 用归并排序求逆序数

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**输入:** Array 数组, n 数组大小

**输出:** 逆序数

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1: function MERGERSORT(Array,left,right)
2:   result←0
3:   if left<right then
4:     middle←(left+right)/2
5:     result←result+ MERGERSORT(Array,left,middle)
6:     result←result+ MERGERSORT(Array,middle,right)
7:     result←result+ MERGER(Array,left,middle,right)
8:   end if
9:   return result
10: end function
11:
12: function MERGER(Array,left,middle,right)
13:   i←left
14:   j←middle
15:   k←0
16:   result←0
17:   while i<middle and j<right do
18:     if Array[i]<Array[j] then
19:       B[k++]←Array[i++]
20:     else
21:       B[k++]←Array[j++]
22:       result←result+(middle-i)
23:     end if
24:   end while
25:   while i<middle do
26:     B[k++]←Array[i++]
27:   end while
28:   while j<right do
29:     B[k++]←Array[j++]
30:   end while
31:   for i=0→k-1 do
32:     Array[left+i]←B[i]
33:   end for
34:   return result
35: end function

```

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