

# **USACO - Houses**

There are a number of houses in a certain locality. The houses are built in a cyclic order and the first house and the last house are next to each other. All houses are to be painted with only one color and the color can be any of the colors of the Rainbow. (VIBGYOR). Painter Jim has been assigned the task of painting the houses. Jim has been told that he must try to put a different color on each of the houses. But, Jim forgets the instructions and decides to paint the house with randomly chosen colors. But he will use one color on a given house only. Given that there are n houses in the locality represented by k1, k2, k3, and so on till kn with colors c1, c2, c3 and so on till cn, find the number of unique pairs of houses that are within m houses of each other that have the same color.

## **INPUT FORMAT (file houses.in)**

The first line contains an integer n(n<10) which represents the number of houses in the locality. The second line represents one integer m(m<5) which represents the maximum number of houses that can be in between the house that has a given color and another house which is supposed to be checked to have the same color. The following lines contain the color of the n houses in order starting from the first house till the last house.

# **OUTPUT FORMAT (file houses.out)**

The output file will contain one integer which represents the number of unique pairs of houses that are within m houses of each other that have the same color.

#### SAMPLE INPUT

5

2

Red

Green

Yellow

Green

Red

#### SAMPLE OUTPUT

2

### **EXPLANATION:**

The first house and the last house are both red in color and that forms the first pair. The second house is green and the fourth house is green with only 1 different colored house in between and this forms the second pair.

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