

# Cut and Add

Harry and Potter took a word string. Harry chose a number M (less than the length of the string) and Potter chose N (less than the length of the string). Harry will cut M alphabets from the end of the string and then add it to the beginning and will give it to Potter. Then Potter will also cut N alphabets from the end of the string, add it to the beginning and then give to Harry. This process will continue till they get the original word string back.

For a given string and given values M and N, find the number of turns in which they will get the original word string back.

## Input Specifications:

Input1: Original word string

Input2: Value of M

Input3: Value of N

## Output Specifications:

The number of turns to get back the original word string.

## Example1:

### Input:

AbcDef

1

2

### Output:

4

### Explanation:

Turn 1: fAbcDe

Turn 2: DefAbc

Turn 3: cDefAb

Turn 4: AbcDef

**Example2:**

**Input:**

abcabc

1

1

**Output:**

3