**Soal 1**

**Input & Output**

Given a string, ***s***, matching the regular expression [A-Za-z !,?.\_'@]+, split the string into  
tokens. We define a token to be one or more consecutive English alphabetic letters. Then, print  
the number of tokens, followed by each token on a new line.

**Input Format**

A single string ***s***.

**Constraints**

• 1 ≤ length of ***s*** ≤ 4.105

• ***s*** is composed of any of the following: English alphabetic letters, blank spaces,  
exclamation points (!), commas (,), question marks (?), periods (.), underscores (\_), apostrophes ('), and at symbols (@).

**Output Format**

On the first line, print an integer, ***n***, denoting the number of tokens in string ***s*** (they do not  
need to be unique). Next, print each of the ***n*** tokens on a new line in the same order as they  
appear in input string ***s***.

**Sample Input:**

|  |
| --- |
| I wasn't home |

**Sample Output:**

|  |
| --- |
| 4  I wasn t home |

**Explanation:**We consider a token to be a contiguous segment of alphabetic characters. There are a total of  
4 such tokens in string ***s***, and each token is printed in the same order in which it appears in  
string ***s***.

**Soal 2**

**Input & Output (2)**

Java's System.out.printf function can be used to print formatted output. The purpose of this  
exercise is to test your understanding of formatting output using printf.  
To get you started, a portion of the solution is provided for you in the editor; you must format  
and print the input to complete the solution.

**Input Format**

Every line of input will contain a String followed by an integer.  
Each String will have a maximum of **10** alphabetic characters, and each integer will be in the  
inclusive range from **0** to **999**.

**Output Format**

In each line of output there should be two columns:

• The first column contains the String and is left justified using exactly **15** characters.  
• The second column contains the integer, expressed in exactly **3** digits; if the original input  
has less than three digits, you must pad your output's leading digits with zeroes.

**Sample Input**

|  |
| --- |
| C 82 python 90 java 100 |

**Sample Output**

|  |
| --- |
| ================================ c 082 python 090 java 100 ================================ |

**Explanation**Each String is left-justified with trailing whitespace through the first **15** characters. The  
leading digit of the integer is the **16th** character, and each integer that was less than **3** digits  
now has leading zeroes.

**Soal 3**

**Berhitung**

Terdapat 5 buah operator matematika:

1. Penjumlahan, direpresentasikan dengan '+'.

2. Pengurangan, direpresentasikan dengan '-'.

3. Perkalian, direpresentasikan dengan '\*'.

4. Pembagian, direpresentasikan dengan '/'.

5. Sisa hasil bagi, direpresentasikan dengan '%'.

Tugas anda adalah menggunakan operator-operator tersebut.

**Input Format**

Satu baris berisi A, operator, dan B, masing-masing dipisahkan sebuah spasi, yang  
menyatakan terdapat operasi "A operator B".

**Output Format**

Satu baris berisi sebuah bilangan bulat, hasil "A operator B".

**Sample Input**

|  |
| --- |
| 1 + 1 |

**Sample Output**

|  |
| --- |
| 2 |

**Sample Input 1**

|  |
| --- |
| 1000 \* 1000 |

**Sample Output 1**

|  |
| --- |
| 1000000 |

**Batasan**

• 1 ≤ A, B ≤ 1.000

• Operator dijamin salah satu dari '+', '-', '\*', '/', atau '%'.

• Jika operator adalah '/', dijamin A habis dibagi B.

**Soal 4**

**Gaji Agent**

Dalam sebuah agent penjualan. Agent akan menerima gaji pokok sebesar Rp.500.000,00  
perbulan. Agent akan menerima bonus penjualan sebesar 25% dari total penjualan item jika  
berhasil menjual minimal 40 item. Agent akan menerima bonus penjualan 35% dari total  
penjualan jika berhasil menjual diatas 80 item. Namun, Jika Agent menjual dibawah 15 item  
akan menerima denda pemotongan gajih pokok sebesar 15% dari total minus penjualan ke 15  
item. Selain itu agen hanya menerima bonus 10% setiap itemnya. Harga setiap item adalah Rp.  
50.000,00

**Input Format**

Satu baris berupa jumlah penjualan bulan ini.

**Output Format**

Satu baris berisi sebuah bilangan berupa gajih yang diterima.

**Sample Input**

|  |
| --- |
| 35 |

**Sample Output**

|  |
| --- |
| 675000 |

**Sample Input 1**

|  |
| --- |
| 14 |

**Sample Output 1**

|  |
| --- |
| 492500 |

**Soal 5**

**Buka Tutup Jalan**

Buka tutup jalan merupakan hal yang lumrah ada di pengaturan jalan khususnya di Indonesia.  
Buka tutup jalan kali ini memiliki aturan yang disempurnakan. Setiap empat mobil yang lewat  
digabung setiap angkanya. Jika (gabungan angka tersebut dikurangi 999999) hasilnya dibagi 5  
sisa bagi hasilnya 0 maka 4 mobil tersebut harus berhenti, dan memperbolehkan mobil lainnya  
dari arah bersebrangan untuk jalan. Begitu terus sebaliknya.

**Input Format**

Satu baris berupa plat number untuk 4 mobil

**Output Format**

Berupa tulisan “Jalan” atau “Berhenti

**Sample Input**

|  |
| --- |
| 3555 2333 4555 6660 |

**Sample Output**

|  |
| --- |
| berhenti |

**Sample Input 1**

|  |
| --- |
| 1223 1111 2222 4449 |

**Sample Output 1**

|  |
| --- |
| jalan |

**Soal 6**

**Big Number**

In this problem, you have to add and multiply huge numbers! These numbers are so big that  
you can't contain them in any ordinary data types like a long integer.  
Use the power of Java's BigInteger class and solve this problem.

**Input Format**

There will be two lines containing two numbers, ***a*** and ***b***.

Constrains

***a*** and ***b*** are non-negative integers and can have maximum **200** digits.

**Output Format**

Output two lines. The first line should contain ***a*** + ***b***, and the second line should contain ***a*** x ***b***.

Don't print any leading zeros.

**Sample Input**

|  |
| --- |
| 2345 35 |

**Sample Output**

|  |
| --- |
| 2380 82075 |

**Explanation**2345 + 35 = 2380

2345 x 35 = 82075

**Soal 7**

**Array**

Diketahui syntaks program seperti dibawah ini:

|  |
| --- |
| public class MDArrayJava { public static void main(String[] args) { //One Dimensional Arrays int[] fisrtArray = {2, 5, 3}; int[] secondArray = {9, 5, 3}; int[] thirdArray = {2, 4, 9}; int[] fourthArray = {10, 11, 12}; int[] fifthArray = {13, 14, 15}; int[] sixthArray = {16, 17, 18}; int[] seventhArray = {19, 20, 21}; int[] eighthArray = {22, 23, 24}; int[] ninthArray = {25, 26, 27}; //Two Dimensional Arrays int[][] twoDimensionalArray1 = {fisrtArray, secondArray, thirdArray}; int[][] twoDimensionalArray2 = {fourthArray, fifthArray, sixthArray}; int[][] twoDimensionalArray3 = {seventhArray, eighthArray, ninthArray}; //Three Dimensional Array int[][][] threeDimensionalArray = {twoDimensionalArray1, twoDimensionalArray2, twoDimensionalArray3}; ……………………………… } } |

Tambahkan kode agar output yang dihasilkan adalah sebagai berikut :

|  |
| --- |
| {{2 5 3 } {9 5 3 } {2 4 9 } } {{10 11 12 } {13 14 15 } {16 17 18 } } {{19 20 21 } {22 23 24 } {25 26 27 } } |