# Jutge.org

The Virtual Learning Environment for Computer Programming

## Basic (2)

You have to program several functions. In each case, few lines of code are enough.

- 1. Write a function *vowel\_consonant*(*s*) that given an string *s* returns the number of vowels and consonants that appear as characters in *s*. We assume all characters of *s* are letters.
- 2. Write a function *delete\_digits*(*s*) that returns the string obtained after ruling out the digit characters of *s*.
- 3. Write a function *switch*(*s*) that given an string *s* returns the string obtained after switching lowercase to uppercase letters and the other way around. Non letter characters do not change. *Warning:* do not use the *swapcase* string method.
- 4. Write a function *countdown*(*n*) that given an integer *n* greater than zero prints the count down until 0.
- 5. Write a function *powers\_of\_2*(*n*) that given a natural *n* prints the *n* first powers of 2.

### Scoring

Every function counts 20 points.

#### Sample session

```
>>> vowel_consonant("SpartacUs")
(3, 6)
>>> delete_digits("#Pelham 1-2-3#")
#Pelham --#
>>> switch("#Pelham 1-2-3#")
#pELHAM 1-2-3#
>>> countdown(7)
7 6 5 4 3 2 1 0
>>> powers_of_2(6)
1 2 4 8 16 32
```

#### **Problem information**

Author : Jorge Castro Generation : 2016-09-20 09:23:05

© *Jutge.org*, 2006–2016. http://www.jutge.org