Classification of characters (2)   P58653_en

Write a program that reads a character and tells if it is a letter, if it is a vowel, if it is a consonant, if it is an uppercase letter, if it is a lowercase letter and if it is a digit.

For your comodity when solving this exercise, use the procedure

> **void** *print_line* (**char** c, **string** s, **bool** b) {
>   **cout** $\ll s \ll$ "('" $\ll c \ll$ "') = ";
>   **if** (b) **cout** $\ll$ "true" $\ll$ **endl**;
>   **else cout** $\ll$ "false" $\ll$ **endl**;
> }

that prints in a line if the character c is an s or not, depending on the boolean b. For instance, the call *print_line* ('J', "letter", **true**); prints the first line of the first sample output.

Input

Input consists of a printable character, like a letter, or a digit, or a punctuation mark.

Output

Tell if the given character is a letter, a vowel, a consonant, an uppercase letter, a lowercase letter and a digit, following the format of the examples.

Sample input 1

```
J
```

Sample output 1

```
letter('J') = true
vowel('J') = false
consonant('J') = true
uppercase('J') = true
lowercase('J') = false
digit('J') = false
```

Sample input 2

```
6
```

Sample output 2

```
letter('6') = false
vowel('6') = false
consonant('6') = false
uppercase('6') = false
lowercase('6') = false
digit('6') = true
```

Sample input 3

```
.
```

Sample output 3

```
letter('.') = false
vowel('.') = false
consonant('.') = false
uppercase('.') = false
lowercase('.') = false
digit('.') = false
```

Problem information

Author : Jordi Petit
Translator : Carlos Molina
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