Dichotomic search   P81966_en

Write an efficient recursive function that returns the position of x in the subvector $v[\ left\ ..right\ ]$. The function must return -1 if x does not belong to $v[\ left\ ..right\ ]$ or if $left > right$.

Precondition

The vector v is sorted in strictly increasing order. Moreover, we have $0 \leq left \leq$ size of v and $-1 \leq right <$ size of v.

Interface

C++	**int** *position* (**double** x, **const vector**<**double**>& v, **int** *left*, **int** *right*);
C	**int** *position* (**double** x, **double** v[], **int** *left* , **int** *right*);
Java	**public static int** *position* (**double** x, **double**[] v, **int** *left* , **int** *right*);
Python	*position* (x, v, *left* , *right*) # returns int
	position (x: *float* , v: *list* , *left* : *int* , *right* : *int*) $\rightarrow$ *int*

Observation

You only need to submit the required procedure; your main program will be ignored.

Problem information

Author : Salvador Roura
Translator : Carlos Molina
Generation : 2016-10-06 15:00:56