Input: Sorted array, size of array and element to search for
Output: Index of element in array if found, or -1

> **procedure** BINARY_SEARCH(*array*, *n*, *element*)
>> $L \leftarrow 0$
>> $R \leftarrow n - 1$
>> **while** $L \leq R$ **do**
>>> $m \leftarrow \lfloor (L + R)/2 \rfloor$
>>> **if** $array[m] == element$ **then return** m
>>> **else if** $array[m] < element$ **then**
>>>> $l \leftarrow m + 1$
>>> **else**
>>>> $r \leftarrow m - 1$
>> **return** -1