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**Input:** Sorted array, size of array and element to search for

**Output:** Index of element in array if found, or -1

**procedure** BINARY\_SEARCH( $A, n, e$ )

$L \leftarrow 0$

$R \leftarrow n - 1$

**while**  $L \leq R$  **do**

$m \leftarrow \lfloor (L + R)/2 \rfloor$

**if**  $A[m] = e$  **then return**  $m$

**else if**  $A[m] < e$  **then**

$l \leftarrow m + 1$

**else**

$r \leftarrow m - 1$

**return** -1

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