
Algorithm 3.1.22 Find the longest English word in an English sentence.

```
1: procedure LONGEST WORD( $a_1, a_2, \dots, a_n$ : string of characters)
2:    $word\ length \leftarrow 0$ 
3:    $maximum\ size \leftarrow 0$ 
4:    $maximum\ index \leftarrow 0$ 
5:    $a_{n+1} \leftarrow "$  "
6:   for  $i = 1$  to  $(n + 1)$  do
7:     if  $a_i \neq "$  " then                                 $\triangleright$  It's in the middle of a word.
8:        $word\ length += 1$ 
9:     else                                                   $\triangleright$  End of word has been reached.
10:       $index \leftarrow (i - word\ length)$                  $\triangleright$  Record start index for word.
11:      if  $word\ length > maximum\ size$  then
12:         $maximum\ size \leftarrow word\ length$ 
13:         $maximum\ index \leftarrow index$ 
14:      end if
15:       $word\ length \leftarrow 0$ 
16:    end if
17:  end for
18:  return  $maximum\ index$ 
19: end procedure
```
