

```

21⊖ public static String leaveShortest(String sentence) {
22     //Turn the string into array, split by white space
23
24     String [] arr = sentence.split(" "); ..... n+k
25     String newString = ""; ..... 1
26     for (int i = 0; i< arr.length; i = i + 3) { ..... n/3
27         String temp = arr[i]; ..... n/3
28         if (arr[i].length() > arr[i+1].length()) { ..... 2n/3
29             temp = arr[i+1]; ..... 2n/3
30         }
31         if (temp.length() > arr[i+2].length()) { ..... 2n/3
32             temp = arr[i+2]; ..... 2n/3
33         }
34         newString += (temp+" "); ..... 2n/3
35     }
36     return newString.substring(0, newString.length()-1); ... 1
37 }

```

where n is the length, k is the number of space separators

loop runs for $\text{array.length}() / 3$ times as the algorithm divide the array in group of 3 elements.
 Assignments on both sides
 Assignments on both sides

Assignments on both sides
 Assignments on both sides

Assignments on both sides

return statement will run only once

Total:

$4n+2 \sim O(n)$