

# Review 1

1. Fill in the blank entries when the numbers are sorted by insertion sort in non-decreasing order.

7	4	3	6	8	1	2
7	4	3	6	8	1	2
4	7					

2. Fill in the blanks with proper number of iterations.

INSERTION-SORT( $A$ )	cost	number of iterations
<b>for</b> $j = 2$ <b>to</b> $n$	$c_1$	
$key = A[j]$	$c_2$	
$i = j - 1$	$c_4$	
<b>while</b> $i > 0$ and $A[i] > key$	$c_5$	
$A[i + 1] = A[i]$	$c_6$	
$i = i - 1$	$c_7$	
$A[i + 1] = key$	$c_8$	

$t_j$  : The number of executions of the while loop test for  $j$ .