
Algorithm 3.1.50 Insertion sort using the reversed linear search technique.

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1: procedure REVERSED INSERTION SORT( $a_1, a_2, \dots, a_n$ : list of compa-
   rable entries)
2:   for  $j = 2$  to  $n$  do
3:      $i \leftarrow j$ 
4:     while  $(i \neq 1)$  and  $(a_{i-1} > a_j)$  do            $\triangleright$  RLS starting from  $a_{j-1}$ .
5:        $i \leftarrow i - 1$ 
6:     end while                                        $\triangleright$  End linear search.
7:      $element \leftarrow a_j$                               $\triangleright$  Insertion.
8:     for  $k = 0$  to  $(j - i - 1)$  do
9:        $a_{(j-k)} \leftarrow a_{(j-k-1)}$ 
10:    end for
11:     $a_i \leftarrow element$                               $\triangleright$  End insertion.
12:  end for
13:  return  $a_1, a_2, \dots, a_n$ 
14: end procedure
```
