

INSERTION-SORT(A)

```
1  for  $j = 2$  to  $A.length$ 
2       $key = A[j]$ 
3      // Insert  $A[j]$  into the sorted sequence  $A[1..j-1]$ .
4       $i = j - 1$ 
5      while  $i > 0$  and  $A[i] > key$ 
6           $A[i+1] = A[i]$ 
7           $i = i - 1$ 
8       $A[i+1] = key$ 
9  for  $j = 2$  to  $A.length$ 
10      $key = A[j]$ 
11     // Insert  $A[j]$  into the sorted sequence  $A[1..j-1]$ .
12      $i = j - 1$ 
13     while  $i > 0$  and  $A[i] > key$ 
14          $A[i+1] = A[i]$ 
15          $i = i - 1$ 
16      $A[i+1] = key$ 
17 for  $j = 2$  to  $A.length$ 
18      $key = A[j]$ 
19     // Insert  $A[j]$  into the sorted sequence  $A[1..j-1]$ .
20      $i = j - 1$ 
21     while  $i > 0$  and  $A[i] > key$ 
22          $A[i+1] = A[i]$ 
23          $i = i - 1$ 
24      $A[i+1] = key$ 
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26      $key = A[j]$ 
27     // Insert  $A[j]$  into the sorted sequence  $A[1..j-1]$ .
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29     while  $i > 0$  and  $A[i] > key$ 
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31          $i = i - 1$ 
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33 for  $j = 2$  to  $A.length$ 
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48      $A[i+1] = key$ 
49 for  $j = 2$  to  $A.length$ 
50      $key = A[j]$ 
51     // Insert  $A[j]$  into the sorted sequence  $A[1..j-1]$ .
52      $i = j - 1$ 
53     while  $i > 0$  and  $A[i] > key$ 
54          $A[i+1] = A[i]$ 
55          $i = i - 1$ 
```