

Insertion Sort with Sentinel

```
A[0]  $\leftarrow -\infty$ 
for i = 2 to n do
    t  $\leftarrow$  A[i]
    j  $\leftarrow$  i-1
    while t < A[j] do
        A[j+1]  $\leftarrow$  A[j]
        j  $\leftarrow$  j-1
    end while
    A[j+1]  $\leftarrow$  t
end for
```

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for i = 2 to n do
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    j  $\leftarrow$  i-1
    while t < A[j] do
        A[j+1]  $\leftarrow$  A[j]
        j  $\leftarrow$  j-1
    end while
    A[j+1]  $\leftarrow$  t
end for
```

Insertion Sort (without sentinel)

```
for i = 2 to n do
  t ← A[i]
  j ← i-1
  while j>0 and A[j]>t do
    A[j+1] ← A[j]
    j ← j-1
  end while
  A[j+1] ← t
end for
```

```
for i = 2 to n do
  t ← A[i]
  j ← i-1
  while j>0 and A[j]>t do
    A[j+1] ← A[j]
    j ← j-1
  end while
  A[j+1] ← t
end for
```