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**Algorithm 1** Bubble Sort

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1: procedure BUBBLESORT( $A, n$ )
2:   for  $i \leftarrow 0$  to  $n - 1$  do
3:     for  $j \leftarrow 0$  to  $n - 1 - i$  do
4:       if  $A[j] > A[j + 1]$  then
5:         Swap  $A[j]$  and  $A[j + 1]$ 
6:       end if
7:     end for
8:   end for
9: end procedure
```

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