

# Bubblesort

## Computational effort

Best Case	Worst Case
$O(n)$	$O(n^2)$

WORST CASE: if the smallest number of the array is in the last position

BEST CASE: if array is already sorted from smallest to largest element

## Pseudocode

### Bubblesort

```
begin
  repeat
    noswap := true
    for i:= 1 to (n-1) do
      if a[i].key > a[i+1].key
        then
          begin
            t := a[i]
            a[i] := a[i + 1]
            a[i + 1] := t
            noswap := false
          end
        end
    until noswap
  end
```