Towards the Bakery Algorithm – 1

```
process ( p ∈ Procs )
  variables unchecked,  max ;
  {       while ( TRUE )
           {        unchecked := Procs \ {self} ;
                    max := 0 ;
                    while ( unchecked ≠ {} )
                      { with ( i ∈ unchecked )
                          { unchecked := unchecked \ {i} ;
                            if ( num[i] > max ) { max := num[i] }
                          }
                      } ;
                    with ( i ∈ {j ∈ Nat : j > max} ) { num[self] := i } ;
                    unchecked := Procs \ {self} ;
                    while ( unchecked ≠ {} )
                      {  with ( i ∈ unchecked )
                           { await  ∨ num[i] = 0
                                    ∨ ⟨num[self], self⟩ ≺ ⟨num[i], i⟩ ;
                             unchecked := unchecked \ {i}
                           }
                      } ;
                    skip ;     the critical section;
                    num[self] := 0 ;
           }
   }
```

CLOSE