

Towards the Bakery Algorithm – 2

```
process (  $p \in Procs$  )  
  variables  $unchecked, max$  ;  
  {  $ncs$ : while ( TRUE )  
    {  $e1$ :  $unchecked := Procs \setminus \{self\}$  ;  
       $max := 0$  ;  
       $e2$ : while (  $unchecked \neq \{\}$  )  
        { with (  $i \in unchecked$  )  
          {  $unchecked := unchecked \setminus \{i\}$  ;  
            if (  $num[i] > max$  ) {  $max := num[i]$  }  
          }  
        } ;  
       $e3$ : with (  $i \in \{j \in Nat : j > max\}$  ) {  $num[self] := i$  } ;  
       $unchecked := Procs \setminus \{self\}$  ;  
      wait: while (  $unchecked \neq \{\}$  )  
        { with (  $i \in unchecked$  )  
          { await  $\vee num[i] = 0$   
               $\vee \langle num[self], self \rangle \prec \langle num[i], i \rangle$  ;  
             $unchecked := unchecked \setminus \{i\}$   
          }  
        } ;  
       $cs$ : skip ;    the critical section;  
      exit:  $num[self] := 0$   
    }  
  }
```