```
EXTENDS Integers
1.1
CONSTANT
ASSUME N. \in Nat
Procs__==__1..N
a_{\sqcup} \rangle prec_{\sqcup} b_{\sqcup} = | \cdot | \cdot | \cdot | a[1] | \cdot | \cdot | b[1]
(a[1]_{0}-b[1])_{0}/(a[2]_{0}-b[2])
Ш
 (*
--algorithm AtomicBakery
\{||variable||num||=||[i|||in|||Procs|||->||0]||
⊔⊔process⊔(p⊔\in⊔Procs)
____{lull { uncs: while (TRUE)
رادا: الماليان المال
____max_:=_0;
_{	ext{uuuuuuuuuuuuuuuu}}_{	ext{u}}with_{	ext{u}}(i_{	ext{u}}\in_{	ext{u}}unchecked)
_____if__(num[i]_>_max)_{comax_:=_num[i]_)}
; {
unununununune3:unuwithu(iu\inu{ju\inuNatu:uju>umax})u{unum[self]u:
uuuuuuuuuuuuuuuuuuuuuuuuuncheckedu:=uProcsu\u{self};
سامان (unchecked المانات while (unchecked المانات الم
<mark>____0</mark> await_\/_num[i]___0
\underline{\quad \quad \text{unchecked}_{\cdot}:=_{\cup}\text{unchecked}_{\cdot}\setminus_{\cdot}\{i\}}
uuuuuuuuuucs:uuuskipu;uu\*utheucriticalusection;
uuuuuuuuuexit:unum[self],:=,0
4
}
*)
\label{eq:mutualexclusion} \texttt{MutualExclusion} \_=\_ \A\_i,j\_ \in\_ \texttt{Procs}_\_: \_(i\_\#\_j)\_ =>\_\_\_\_/ \land\_pc[i]\_=\_"cs"
<mark>______/\_pc[j]_u=_"cs"</mark>
```