

```

|----- MODULE malgtd1ex2 -----|
|  modules de base importables      |
|  EXTENDS Naturals, TLC          |
|-----|
|  CONSTANTS max                  |
|-----|
|  VARIABLES  np                  |
|-----|
|  tentative 1                      |
|  entrer  $\triangleq$   $np' = np + 1$       |
|  sortir  $\triangleq$   $np' = np - 1$       |
|  Next  $\triangleq$                       |
|       $\vee$  entrer                    |
|       $\vee$  sortir                    |
|  Init  $\triangleq$   $np = 0$               |
|  Q1  $\triangleq$   $np \neq 789$           |
|-----|
|  tentative 2                      |
|  sortir2  $\triangleq$   $np > 0 \wedge np' = np - 1$  |
|  next2  $\triangleq$   $entrer \vee sortir2$  |
|                                     |
|  entrer2  $\triangleq$   $np < max \wedge np' = np + 1$  |
|  next3  $\triangleq$   $entrer2 \vee sortir2$  |
|-----|
|                                     |
|  safety1  $\triangleq$   $np \leq max$       |
|  safety2  $\triangleq$   $0 \leq np$         |
|  question1  $\triangleq$   $np \neq 6$     |
|-----|

```