

## MACHINE Space

### SETS & CONSTANTS

grid, asteroids, homebase, starbase

### PROPERTIES

grid : NAT1 <-> NAT1 & grid =

{

1|->1, 1|->2, 1|->3, 1|->4, 1|->5, 1|->6, 1|->7,

2|->1, 2|->2, 2|->3, 2|->4, 2|->5, 2|->6, 2|->7,

3|->1, 3|->2, 3|->3, 3|->4, 3|->5, 3|->6, 3|->7,

4|->1, 4|->2, 4|->3, 4|->4, 4|->5, 4|->6, 4|->7,

5|->1, 5|->2, 5|->3, 5|->4, 5|->5, 5|->6, 5|->7,

6|->1, 6|->2, 6|->3, 6|->4, 6|->5, 6|->6, 6|->7,

7|->1, 7|->2, 7|->3, 7|->4, 7|->5, 7|->6, 7|->7,

8|->1, 8|->2, 8|->3, 8|->4, 8|->5, 8|->6, 8|->7,

9|->1, 9|->2, 9|->3, 9|->4, 9|->5, 9|->6, 9|->7,

10|->1, 10|->2, 10|->3, 10|->4, 10|->5, 10|->6, 10|->7,

11|->1, 11|->2, 11|->3, 11|->4, 11|->5, 11|->6, 11|->7,

12|->1, 12|->2, 12|->3, 12|->4, 12|->5, 12|->6, 12|->7

}

&

asteroids <: grid & asteroids =

{3|->2, 3|->5, 5|->4, 6|->7, 7|->1, 7|->5, 7|->7, 8|->3,

10|->6, 11|->2, 12|->5}

&

homebase : grid & homebase /: asteroids &

homebase = 1 |-> 1

&

starbase : grid & starbase /: asteroids & starbase /=

homebase & starbase = 6 |-> 4