Practica 7 - Especificaciones

Ejercicio 1

- $f.\ xs = \langle \forall_i : 0 < i < \#xs : xs.\ i = xs.0 \rangle$
- $f.\ xs = \langle \forall_{i,j} : 0 \leq i < j < \#xs : xs.\ i \neq xs.\ j \rangle$
- $P.\ xs = \langle \exists_i : 0 \leq i < \#xs : xs.\ i = 1 \rangle \Rightarrow \langle \exists_i : 0 \leq i < \#xs : xs.\ i = 0 \rangle$
- $p.\ xs = \langle \Pi_i : 0 \leq i < \#xs \ \wedge \ primo.\ (xs.\ i) : xs.\ i \rangle$

Ejercicio 2

- $\langle Min_i : 0 \leq i < \#xs : xs.\ i = True \rangle$
- $\langle Max_i : 0 \leq i < \#xs : xs.\ i = True \rangle$
- $f.\ xs = \langle \forall_i : 0 < i < \#xs : xs.\ i = xs.0 \rangle$

Ejercicio 3

- $f.\ xs = \langle N_i : o \leq i < \#xs : par.\ (xs.\ i) \rangle = \langle N_i : 0 \leq i < \#xs : impar.\ (xs.\ i) \rangle$
- $f.\ n = |n| > 1 \ \wedge \ \neg \langle \exists_k : 2 \leq k \leq \sqrt{n} : n \bmod k = 0 \rangle$
- $espejo.\ xs = \langle \forall_i : 0 \leq i < \#xs : xs.\ (\#xs - (i + 1)) \rangle$
- $f.\ xs = \langle \exists_{as,\ bs,\ cs} :: xs = as +\!\!+ bs +\!\!+ cs \ \wedge \ \#bs > 1 \ \wedge \ \langle \forall_i : 0 \leq i < \#bs : bs.\ i = bs.\ (\#bs - (i + 1)) \rangle \rangle$
- $f.\ xs.\ ys = \langle \exists_{as,\ bs} :: xs = as +\!\!+ ys +\!\!+ bs \rangle$
- $f.\ xs.\ ys = \langle \exists_{as} :: xs = as +\!\!+ ys \rangle$

Ejercicio 4

- $P.\ xs.\ ys = \langle \exists_{as,\ bs} :: xs = as +\!\!+ ys +\!\!+ bs \rangle$
- $\langle Min_{as,\ bs,\ cs} : xs = as +\!\!+ bs +\!\!+ cs : sum.\ bs \rangle$
- $maxigual.\ xs = \langle Max_{as,\ bs,\ cs} : xs = as +\!\!+ bs +\!\!+ cs \ \wedge \ \langle \forall_i : 0 < i < \#bs : bs.\ i = bs.0 \rangle : \#bs \rangle$

Ejercicio 5

- "Determinar si todos los elementos de la lista son mayores o iguales a cero"
- "Determinar si existe un elemento de la lista menor que el que le sigue"
- "Determinar si algún elemento de la lista es cero"
- "Determinar si todos los elementos de la lista son iguales"