

Práctico 7 - Especificaciones

Ejercicio 1

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

Ejercicio 2

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

Ejercicio 3

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

Ejercicio 4

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

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