

EJERCICIO 4.3

September 1, 2021

```
proc laCasaEstaQuedandoChica(in th : ephh, in ti : ephi, out res : seq⟨Z⟩)
  Pre[validarEncuesta(th : ephh; ti : ephi)]
  Post[—res—=6 ∧L (∀i ∈ Z)(0 ≤ i ≤ 5 ∧L res[i] = @ProporcionCasasHacinadas(th, ti, i+
1))]
```

1 Funciones auxiliares

```
Aux @CasasTotales(th, k : Z) : Z =
  ∑j=1|th| s(j)(if (th[j].Ord(7) = k ∧ th[j].Ord(8) = 0 ∧ th[j].Ord(9) = 1) then s(j) =
1 else 0 fi)
```

```
Aux @CasasHacinadas(th : ephh, ti : ephi, k : Z) : Z =
  ∑j=1|th| s(j)(if (th[j].Ord(7) = k ∧ th[j].Ord(8) = 0 ∧ th[j].Ord(9) = 1 ∧
individuosEnHogar(ti, th[j][0]) > 3 * th[j].Ord(10)) then s(j) = 1 else 0 fi)
```

```
Aux @ProporcionCasasHacinadas(th, ti, k : Z) : Z =
  (∀k ∈ Z)(if (1 ≤ k ≤ 6 ∧L @CasasTotales(th, k) > 0) then  $\frac{@CasasHacinadas(th, ti, k)}{@CasasTotales(th, k)}$  else 0 fi)
```

]