

```

proc ordenar (inout r: reunion, in freq:  $\mathbb{Z}$ , in prof:  $\mathbb{Z}$ ) {
  Pre {esReuniónVálidaAux(r, prof, freq)  $\wedge$   $r_0 = r$ }
  Post {
    esReuniónVálidaAux(r, prof, freq)  $\wedge$ 
    ordenadaDeMayorAMenorPorTonoDeVoz(r)  $\wedge$ 
    esUnaPermutación( $r_0$ , r)
  }
}

pred ordenadaDeMayorAMenorPorTonoDeVoz (r: reunion) {
  ( $\forall i : \mathbb{Z}$ )  $1 \leq i < |r| \longrightarrow_L \text{tonoDeVoz}(r[i-1]_0) \geq \text{tonoDeVoz}(r[i]_0)$ 
}

pred esUnaPermutación (x: reunion, y: reunion) {
   $|x| = |y| \wedge_L$ 
  ( $\forall i : \mathbb{Z}$ )  $0 \leq i < |x| \longrightarrow_L$ 
  ( $\exists j : \mathbb{Z}$ )  $0 \leq j < |y| \wedge_L (x[i]_1 = y[j]_1) \wedge_L (x[i]_0 = y[j]_0)$ 
}

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