```
last_l_interval  THM

⊢  ∀T:Type, l:T List, i:ℕ||l||, j:ℕi.
|  last(l_interval(l;j;i)) = l[(i-1)]
| by Auto THEN Unfold ‘last‘ 0
|    THEN
|    RWO
|    Thm* ∀l:T List, i:ℕ||l||, j:ℕ(i+1), x:ℕ(i-j).
|         l_interval(l;j;i)[x] = l[(j+x)]
|    {select_l_interval}
|    0
|    THEN
|    Inst
|    Thm* ∀l:T List, i:ℕ||l||, j:ℕ(i+1).
|         ||l_interval(l;j;i)|| = i-j ∈ ℤ
|    {length_l_interval}
|    [T;l;i;j]
|    THEN
|    HypSubst’ -1 0
|
1. T : Type
2. l : T List
3. i : ℕ||l||
4. j : ℕi
5. ||l_interval(l;j;i)|| = i-j
⊢  l[(j+i-j-1)] = l[(i-1)]  by ArithSimp 0
END
```