```
firstn_lem0  THM

⊢  ∀as:T*. firstn(||as||;as) = as  by RepD
|
1. T : Type
2. as : T*
⊢  firstn(||as||;as) = as
| by ListInd 2 THEN RecUnfold ‘firstn‘ 0 THEN Reduce 0
|
3. u : T
4. v : T*
5. firstn(||v||;v) = v
⊢  if 0<₂||v||+1→ u.firstn(||v||+1-1;v) else nil fi = u.v
| by (ArithSimp 0) THEN SplitOnConclITE
|
.....truecase .....
6. 0<1+||v||
⊢  u.firstn(||v||;v) = u.v  by Analyze
END
```