```
zip_unzip  THM

⊢  ∀T1,T2:Type, as:(T1×T2) List.
|  zip(1of(unzip(as));2of(unzip(as))) = as  by Unfold ‘unzip‘ 0·
|
⊢  ∀T1,T2:Type, as:(T1×T2) List.
|  zip(1of(<map(λp.1of(p);as)
|          ,map(λp.2of(p);as)>);2of(<map(λp.1of(p);as)
|                                  ,map(λp.2of(p);as)>))
|  =
|  as  by InductionOnList THEN All Reduce
THEN Try (Complete Auto)·
|
1. T1 : Type
2. T2 : Type
3. (T1×T2) List
4. u : T1×T2
5. v : (T1×T2) List
6. zip(map(λp.1of(p);v);map(λp.2of(p);v)) = v
⊢  [<1of(u),2of(u)> / zip(map(λp.1of(p);v);map(λp.2of(p);v))]
   =
   [u / v]  by D (-3) THEN Reduce 0 THEN EqCD THEN Auto·
END
```