```
sumdeq-property  THM

⊢  ∀A,B:Type, a:EqDecider(A), b:EqDecider(B), p,q:A+B.
   p = q ⟺ sumdeq(a;b)(p,q)
  by UnivCD THEN Unfold `sumdeq` 0 THEN Reduce 0 THEN Analyze 6
     THEN
     Analyze 5
     THEN
     Analyze 4
     THEN
     Analyze 3
     THEN
     Reduce 0
     THEN
     Try (Analyze THEN BackThruSomeHyp THEN Trivial)
     THEN
     Try (BackThruSomeHyp THEN ObviousFrom [-1])
     THEN
     Try (ObviousFrom [-1])
END
```