```
hanoi_peg_perm_comp1  THM

⊢  ∀p,r,q,s:Peg. p ≠ q ⇒ r ≠ s ⇒ permute(p to r ; q to s)(p) = r
| by Compute
|      ⌈permute(p to r ; q to s)(p)⌉
|      *⇒
|      if p=₂p→ r ; p=₂q→ s else otherPeg(r; s) fi
|
1. p : Peg
2. r : Peg
3. q : Peg
4. s : Peg
5. p ≠ q
6. r ≠ s
⊢  if p=₂p→ r ; p=₂q→ s else otherPeg(r; s) fi = r
  by SplitITE Concl THEN Analyze-1
END
```